Criterion 1	Vision, Mission and Program Educational Objectives	60

1.1	State the Vision and Mission of the Department and Institute	5M
1.2	State the Program Educational Objectives (PEOs)	5M
1.3	Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders	10M
1.4	State the process for defining the Vision and Mission of the Department, and PEOs of the program	25M
1.5	Establish consistency of PEOs with Mission of the Department	15M

CRITERION 1	Vision, Mission and Program Educational Objectives	60

1. Vision, Mission and Program Educational Objectives (60)

1.1. State the Vision and Mission of the Department and Institute (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)
(Here Institute Vision and Mission statements have been asked to ensure consistency with the department Vision and Mission statements; the assessment of the Institute Vision and Mission will be taken up in Criterion 10)

Vision of the Institute

To be a leading institution of women empowerment, producing internationally accepted professionals with psychological strength, emotional balance and ethical values

Mission of the Institute

M1: To empower women engineers through innovative teaching learning practices.

M2: To encourage for higher education and research with well-equipped laboratories.

M3: To promote entrepreneurship through creativity and innovation.

M4: To promote environmental sustainability and inculcate ethical, emotional and social consciousness.

Vision of the Department

To evolve into a centre of excellence and to empower women in emerging areas of Computer Science and Engineering with human values

Mission of the Department

M1: To train students to analyze, design, develop and test software applications.

M2: To impart technical expertise in sustaining the needs of the IT industry.

M3: To foster research activities and entrepreneurial skills in emerging technologies.

M4: To inculcate lifelong learning skills in line with technological advancement and social consciousness.

1.2. State the Program Educational Objectives (PEOs) (5)

(State the PEOs (3 to 5) of program seeking accreditation)

The educational objectives of the Computer Science and Engineering program are the statements that are designed based on the Program Outcomes, Vision and Mission of the Department. The PEOs are the expected achievements of the graduates in their career during the first few years after graduation.

Graduates are able to

PEO 1: lead the diverse range of careers in IT sectors and initiate entrepreneurship in Software development.

PEO 2: excel in higher studies and research in emerging areas of Computer Science Engineering.

PEO 3: possess continuous learning by adapting to technological trends to help society with ethical values.

1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

(Describe where (websites, curricula, posters etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and external stakeholders with effective process implementation)

(Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)

The Vision, Mission and PEOs are published and disseminated among various stakeholders to ensure awareness. The stakeholders include parents, faculty, Governing body members, students, employers, industry, alumni, funding agencies, etc. The modes and occasions of this process are detailed below.

The **Vision and Mission of the Institute** are **published** at

- Institute Website
- Institute Newsletter
- Institute Brochure
- Placement Brochure
- Course File
- Assignment Books
- Lab Manuals
- Student Mentoring Books

The **Vision and Mission of the Institute** are **disseminated** through

- Workshops
- Seminars
- Guest Lectures

- Faculty Development Programmes
- Technical Events
- First-Year Orientation Programmes
- Parent-Teacher Meetings
- Alumni Meetings

The **Vision and Mission of the Institute** are **displayed** at

- Principal's Chamber
- HoD Chamber
- Administration Office
- Central Library
- Seminar hall
- Canteen
- Hostel
- Training and Placement cell
- Notice Boards
- Classrooms
- Laboratories

The **Vision, Mission of the Department** and **PEOs of the program** are **published** at

- Institute Website
- Department Course Website
- Department Newsletter
- Course Files
- Lab Manuals
- Assignment Books
- Student Mentoring Books
- Department Placement Brochure

The **Vision, Mission of the Department** and **PEOs of the program** are **disseminated** through

- Parent-Teacher Meetings
- Workshops
- Seminars
- Guest Lectures

- Faculty Development Programmes
- Technical Events
- Department Association Activities
- Meetings with HRs during Placement Drives
- First-Year Orientation Programme
- Alumni Meetings

The **Vision, Mission of the Department and PEOs of the program** are **displayed** at

- HoD Chamber
- Classrooms
- Staff rooms
- Laboratories
- Notice Boards
- Department Library
- Seminar hall

1.4. State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

(Articulate the process for defining the Vision and Mission of the department and PEOs of the program)

Process for defining the Vision and Mission of the Department

Department of Computer Science and Engineering defined its Vision and Mission by involving all the stake holders. The stakeholders include parents, faculty, students, employers, industry, alumni, funding agencies, etc.

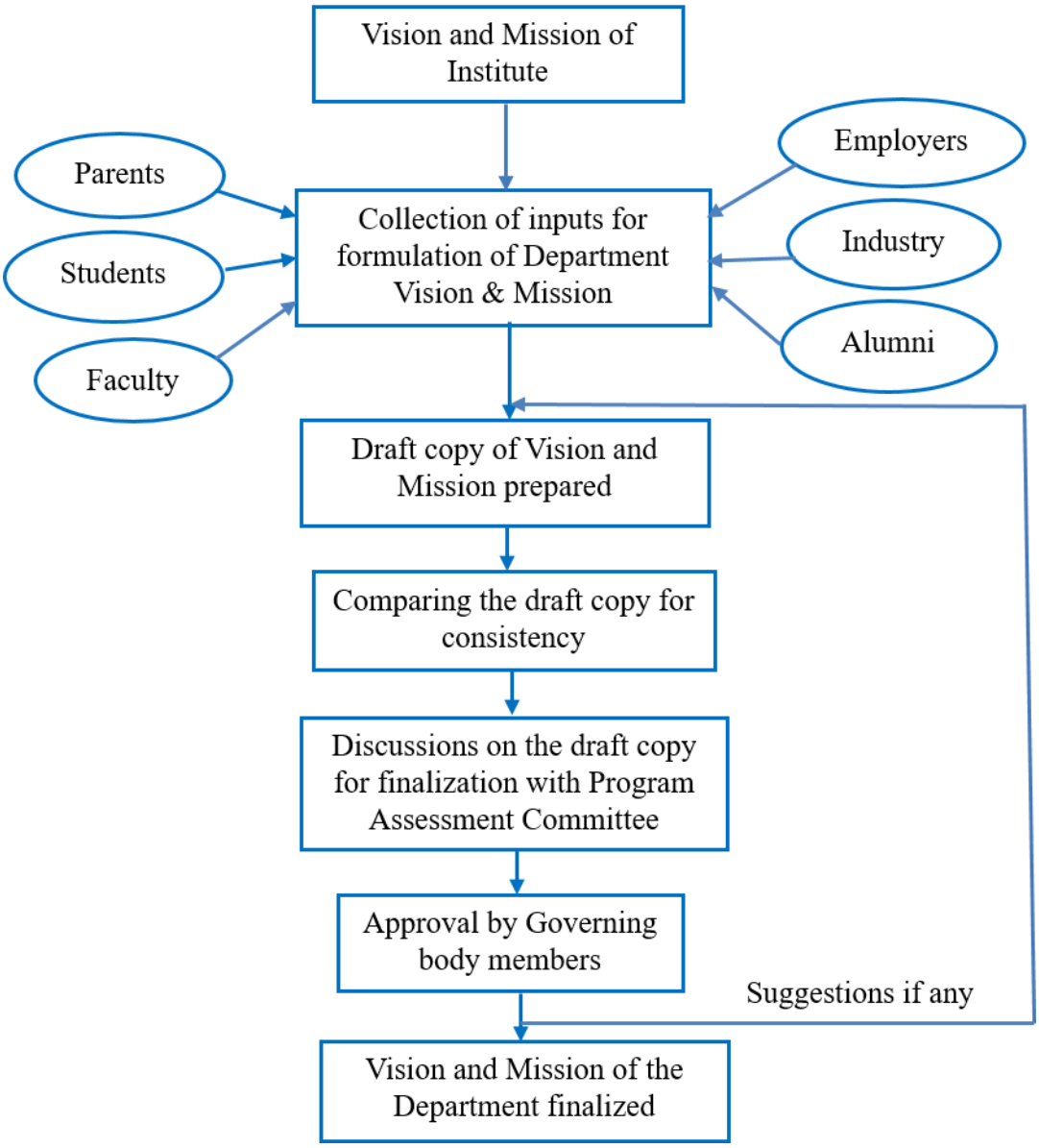

Figure B.1.4.a: Flow chart for process of defining Vision and Mission of the Department

The process for defining the Vision and Mission of the Department is as follows.

Step 1: The Head of the Department as a Chairman constitutes a panel with three senior faculty members for formulating the draft copy of Department Vision and Mission.

Step 2: The panel collects the inputs from stakeholders and prepares the draft copy in line with the Vision and Mission of the institute and Program Outcomes defined by NBA.

Step 3: The draft copy of Vision and Mission is compared to check the consistency keeping Vignan's Group as benchmark.

Step 4: The panel discuss with the Program Assessment Committee for finalization of the draft copy through brainstorming and modifications reflected.

Step 5: The finalized draft copy is sent for approval of the Governing Body and suggestions are incorporated if any by repeating from Step 2.

Step 6: The approved Vision and Mission of the Department are displayed, published and disseminated among the stakeholders.

Process for defining the PEOs of the Program

Department of Computer Science and Engineering defined its Program Educational Objectives (PEOs) by involving all the stakeholders. The stakeholders include parents, faculty, students, employers, industry, alumni, funding agencies, etc.

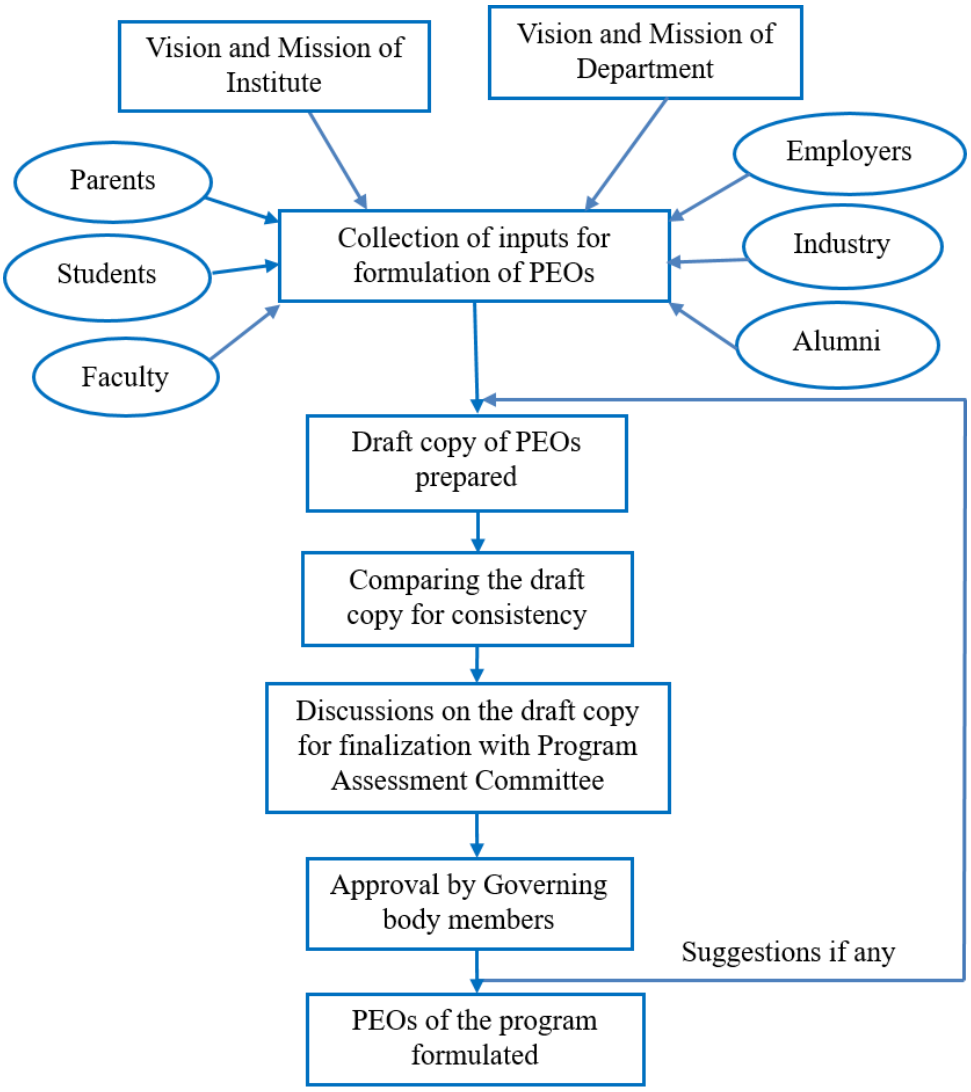

Figure B.1.4.b: Flow chart for process of defining PEOs of the program

The process for defining the Program Educational Objectives adopts the following sequence of steps.

Step 1: The Head of the Department as a Chairman constitutes a panel with three senior faculty members for formulating the draft copy of Program Educational Objectives of the Program.

Step 2: The panel collects the inputs from stakeholders and prepares the draft copy in accordance with the Vision and Mission of the Institute, Vision and Mission of the Department and Program Outcomes defined by NBA.

Step 3: The draft copy of PEOs of the program is compared to check the consistency by keeping Vignan's Group as benchmark.

Step 4: The panel after a brainstorming session with the Program Assessment Committee reflects on the modifications and finalizes the draft copy.

Step 5: The finalized draft copy is forwarded to Governing body for approval and suggestions are incorporated if any by repeating from Step 2.

Step 6: The approved PEOs of the program are displayed, published and disseminated among the stakeholders.

1.5. Establish consistency of PEOs with Mission of the Department (15)

(*Generate a "Mission of the Department – PEOs matrix" with justification and rationale of the mapping*)

Mission of the Department- PEO Matrix

PEOs Graduates are able to	**M1 Technical skills**	**M2 Sustainability**	**M3 Research & Entrepreneurial skills**	**M4 Lifelong learning, social consciousness**
PEO 1: lead the diverse range of careers in IT sector and initiate entrepreneurship in software development.	**3**	**3**	**2**	**2**
PEO 2: excel in higher studies and research in emerging areas of Computer Science Engineering.	**3**	**3**	**3**	**2**
PEO 3: possess continuous learning by adapting to technological trends to help society with ethical values.	**2**	**2**	**3**	**3**

Table B.1.5: Mapping of Department Missions with PEOs

M1: To train students to analyze, design, develop and test software applications.

M2: To impart technical expertise in sustaining the needs of the IT industry

M3: To foster research activities and entrepreneurial skills in emerging technologies.

M4: To inculcate lifelong learning skills in line with technological advancement and social consciousness.

Justification and rationale – mapping

PEO1 –M1: PEO1 has high correlation with **M1** as the students are trained to lead their careers in IT sector and entrepreneurship in software development.

PEO1 –M2: PEO1 has high correlation with **M2** while the students show expertise with latest technologies to sustain the needs of the IT industry**.**

PEO1 –M3:PEO1 has moderate correlation with **M3.** PEO1 focuses on career and entrepreneurship whereasM3 focuses on the motivation of students to pursue their career in research and develop entrepreneurial skills.

PEO1 –M4: PEO1 is moderately correlated with **M4** because PEO1moderatelyfocuseson lifelong learning skills and social consciousness.

PEO2 –M1: PEO2 is strongly correlated with **M1.** PEO2 focuses on higher studies and research activities which are strongly correlated with careers in the IT sector and entrepreneurship in software development.

PEO2 –M2: PEO2 which focuses on higher studies and research activities are strongly correlated with **M2** defined on technical knowledge to sustain the needs of the IT industry.

PEO2 –M3: PEO2 has high correlation with **M3** because the students are encouraged for higher studies and research activities to develop entrepreneurial skills**.**

PEO2 –M4: PEO2 which focuses on higher studies and research activities is moderately correlated with **M4** that focuses on lifelong learning skills and social consciousness.

PEO3 –M1: PEO3 which focuses on continuous learning by adapting to technological trends is moderately correlated with **M1,** where M1 focuses on training students to design and develop software applications.

PEO3 –M2: PEO3 which states continuous learning by adapting to technological trends is moderately correlated with **M2** which focuses on continuous learning in technical expertise to meet the needs of IT industry

PEO3 –M3: PEO3 has high correlation with **M3** because PEO3 focuses on continuous learning and M3 focuses on research activities and entrepreneurial skills.

PEO3 –M4: PEO3 has high correlation with **M4** as the students are motivated towards continuous learning by adapting to advances in technology.

Criterion 2	Program Curriculum and Teaching- Learning Processes	120

2.1	Program Curriculum	20 M
2.2	Teaching-Learning Process	100 M

Criterion 2	Program Curriculum and Teaching- Learning Processes	120

2.1. Program Curriculum (20)

2.1.1. State the Process used to Identify Extent of Compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as Mentioned in Appendix I of SAR. Also Mention the Identified Curricular Gaps, if any (10)

(State the process details; also mention identified curricular gaps).

Vignan's Institute of Engineering for Women (VIEW) is affiliated to Jawaharlal Nehru Technological University, Kakinada (JNTUK) and hence the syllabus/curriculum prescribed by the university is followed. JNTUK is one of the oldest (estd.1946) technological universities, in Kakinada, East Godavari district focusing on engineering and among the top ranking (NIRF 2018: 97) universities in the country. A systematic methodology is followed by JNTUK in preparing the curriculum not only by taking the feedback from the Board of Studies (BoS) but also from professors and principals of affiliated colleges. It also obtains the guidelines from AICTE and revises the curriculum once in every three years to meet the needs of the industry.

Curriculum of CSE program offered by JNTUK maintains balance in the composition of courses categorized as Basic Sciences and Humanities, Management courses, Engineering Sciences, Professional core and elective courses, Seminar and Project work. The program runs R19 regulation for current admitted batch (2019), R16 regulation for 2018, 2017 & 2016 admitted batches and R13 regulation for 2015, 2014 & 2013 admitted batches. The following Table B.2.2.1a shows the regulation followed for the three academic years to the students in their respective year of study.

Year	I	II	III	IV
2019-20	R19	R16	R16	R16
2018-19	R16	R16	R16	R13
2017-18	R16	R16	R13	R13

Table B.2.1.1.a: Regulation followed for respective year of study

The number of courses in R13 and R16 regulation is tabulated in Table B.2.1.1.a and compared in Figure B.2.1.1.a.

Sl. No.	TYPES OF COURSES	R13 Regulation		R16 Regulation	
		No. of Courses	Percentage Contribution	No. of Courses	Percentage Contribution
1	Humanities Sciences including Management Courses (HS)	8	12%	8	12%
2	Basic Sciences (BS)	7	10%	7	10%
3	Engineering Sciences (ES)	4	6%	3	5%
4	Professional Core Courses (CS)	41	60%	41	61%
5	Professional Electives (CS*)	4	4%	3	3%
6	Open Subjects- Electives (OE)	0	0%	1	2%
7	Project Work and Seminar	3	6%	2	4%
8	Non- Credit Based (NCB)	1	2%	2	3%
	Total	**68**	**100%**	**67**	**100%**

Table B.2.1.1.b: Contribution of course modules to the program curriculum

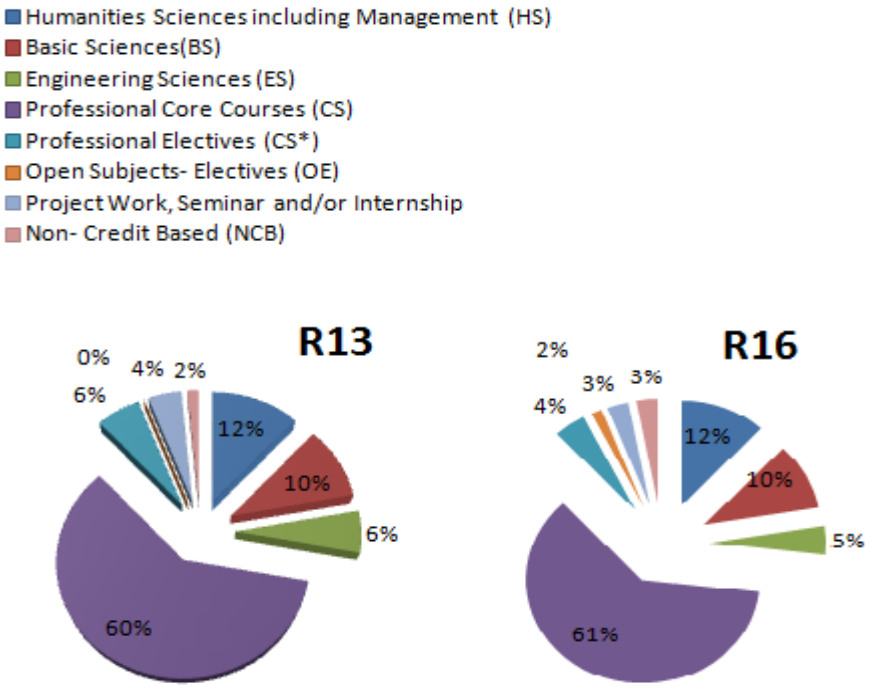

Figure B.2.1.1.a: Course Modules for CSE Program in R13 and R16 Regulation

The curriculum is designed by the university with total credits of 180 for a student to be eligible to get an undergraduate degree in Computer Science and Engineering as recommended by the AICTE shown in Table B.2.2.1.c.

Sl. No.	Course Modules	Credits recommended by AICTE	Credits as per University Curriculum (R16)	Credits as per University Curriculum (R13)
1	Humanities Sciences including Management Courses (HS)	14	22	22
2	Basic Sciences (BS)	31	19	22
3	Engineering Sciences (ES)	24	6	8
4	Professional Core Courses (CS)	60	109	105
5	Professional Electives (CS*)	18	9	12
6	Open Subjects- Electives (OE)	9	3	0
7	Project Work, Seminar and/or Internship	20	12	11
	TOTAL	**176**	**180**	**180**

Table B.2.1.1.c: Curriculum compliance with AICTE

On comparison from Table B.2.1.1.c, it is very clear that the number of courses provided by the university is in compliance with AICTE. The instructional hours required, credits for the course for the categorized courses for R16 and R13 regulation are tabulated in Table B.2.1.1.d as follows:

Humanities Sciences and social including Management (HS)for R16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C101	English – I	4	--	--	3
C107	English - Communication Skills Lab - 1	--	--	3	2
C111	English – II	4	--	--	3
C114	Environmental Studies	4	--	--	3
C117	English - Communication Skills Lab – 2	--	--	3	2
C201	Statistics with R Programming	4	--	--	3
C404	Managerial Economics and Financial Analysis	4	--	--	3
C410	Management Science	4	--	--	3

Basic Sciences (BS)Courses forR16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C102	Mathematics – I	4	--	--	3
C105	Mathematics – II (Mathematical Methods)	4	--	--	3
C103	Applied Physics	4	--	--	3
C108	Applied / Engineering Physics Lab	--	--	3	2
C112	Mathematics – III	4	--	--	3

C113	Applied Chemistry	4	--	--	3
C118	Applied / Engineering Chemistry Laboratory	--	--	3	2

Engineering Sciences (ES)Courses forR16					
Course Code	Name of the Course	Instructional Hours & Credits			
		L	T	P	C
C106	Engineering Drawing	4	--	--	3
C116	Engineering Mechanics	4	--	--	3

Professional Core Electives (CS) Courses for R16					
Course Code	Name of the Course	Instructional Hours & Credits			
		L	T	P	C
C104	Computer Programming	4	--	--	3
C110	Computer Programming Lab	--	--	3	2
C115	Object Oriented Programming through C++	4	--	--	3
C119	Object Oriented Programming Lab	--	--	3	2
C202	Mathematical Foundations of Computer Science	4	--	--	3
C203	Digital Logic Design	4	--	--	3
C204	Python Programming	4	--	--	3
C205	Data Structures through C++	4	--	--	3
C206	Computer Graphics	4	--	--	3
C207	Data Structures through C++ Lab	--	--	3	2
C208	Python Programming Lab	--	--	3	2
C209	Software Engineering	4	--	--	3
C210	Java Programming	4	--	--	3
C211	Advanced Data Structures	4	--	--	3
C212	Computer Organization	4	--	--	3
C213	Formal Languages and Automata Theory	4	--	--	3
C214	Principles of Programming Languages	4	--	--	3
C215	Advanced Data Structures Lab	--	--	3	2
C216	Java Programming Lab	--	--	3	2
C301	Compiler Design	4	--	--	3
C302	Unix Programming	4	--	--	3
C303	Object Oriented Analysis and Design using UML	4	--	--	3
C304	Database Management Systems	4	--	--	3
C305	Operating Systems	4	--	--	3
C303	Unified Modelling Lab	--	--	3	2
C307	Operating System & Linux Programming Lab	--	--	3	2
C308	Database Management System Lab	--	--	3	2
C310	Computer Networks	4	2	--	3
C311	Data Warehousing and Mining	4	--	--	3
C312	Design and Analysis of Algorithms	4	--	--	3
C313	Software Testing Methodologies	4	--	--	3

C315	Network Programming Lab	--	--	3	2
C316	Software Testing Lab	--	--	3	2
C317	Data Warehousing and Mining Lab	--	--	3	2
C401	Cryptography and Network Security	4	--	--	3
C402	Software Architecture & Design Patterns	4	--	--	3
C403	Web Technologies	4	--	--	3
C407	Software Architecture& Design Patterns Lab	--	--	3	2
C408	Web Technologies Lab	--	--	3	2
C409	Distributed Systems	4	--	--	3
C411	Machine Learning	4	--	--	3

Professional Electives (CS*) Courses for R16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C405	Big Data Analytics	4	--	--	3
C406	Cloud Computing	4	--	--	3
C412	Concurrent and Parallel Programming	4	--	--	3

Open Subjects- Electives (OE) Courses for R16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C314	Artificial Intelligence	4	--	--	3

Seminar and Project Work for R16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C413	Seminar	--	3	--	2
C414	Project	--	--	--	10

Mandatory/ Non-Credit Based Courses forR16					
Course Code	**Name of the Course**	**Instructional Hours & Credits**			
		L	**T**	**P**	**C**
C109	Applied / Engineering Physics – Virtual Labs	--	--	2	--
C309	Professional Ethics & Human Values	--	3	--	--
C318	IPR & Patents	--	2	--	--

Humanities Sciences and Social including Management (HS) for R13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C101	English – I	3+1	--	3
C105	Environmental Studies	3+1	--	3
C107	English - Communication Skills Lab – I	--	3	2
C110	English – II	3+1	--	3

C114	Professional Ethics and Human Values	3+1	--	3
C116	English - Communication Skills Lab – II	--	3	2
C210	Probability and statistics	4	--	3
C201	Managerial Economics and Financial Analysis	4	--	3
C412	Management Science	4	-	3

Basic Sciences (BS) Courses forR13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C102	Mathematics –I	3+1	--	3
C103	Engineering Chemistry	3+1	--	3
C111	Mathematics – III	3+1	--	3
C113	Mathematics – II (Mathematical Methods)	3+1	--	3
C108	Engineering Chemistry Laboratory	--	3	2
C112	Engineering Physics	3+1	--	3
C117	Engineering Physics Lab	--	3	2

Engineering Sciences (ES)Courses forR13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C106	Engineering Mechanics	3+1	--	3
C115	Engineering Drawing	3+1	--	3
C119	Engineering Workshop and IT Workshop	--	3	2

Professional Core(CS) Courses for R13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C104	Computer Programming	3+1	--	3
C109	C Programming Lab	--	3	2
C203	Object Oriented Programming through C++	4	--	3
C204	Mathematical Foundations of Computer Science	4	--	3
C205	Digital Logic Design	4	--	3
C202	Data Structures	4	--	3
C206	Object Oriented Programming Lab	--	3	2
C207	Data Structures Lab	--	3	2
C208	Digital Logic Design Lab	--	3	2
C211	Java Programming	4	--	3
C212	Advanced Data Structures	4	--	3
C213	Computer Organization	4	--	3
C214	Formal Languages and Automata Theory	4	--	3
C215	Advanced Data Structures Lab	--	3	2
C216	Java Programming Lab	--	3	2
C217	Free Open Source Software (FOSS) Lab	--	3	2
C301	Compiler Design	4	-	3
C302	Data Communication	4	-	3

C303	Principles of Programming Languages	4	-	3
C304	Database Management Systems	4	-	3
C305	Operating Systems	4	-	3
C306	Compiler Design Lab	-	3	2
C307	Operating Systems/ Linux Programming Lab	--	3	2
C308	Database Management Systems Lab	--	3	2
C310	Software Engineering	4	-	3
C311	Data Ware housing and Mining	4	-	3
C312	Computer Networks	4	-	3
C313	Design and Analysis of Algorithms	4	-	3
C314	Web Technologies	4	-	3
C315	IPR and Patents	2	--	2
C316	Computer Networks Lab	-	3	2
C317	Software Engineering Lab	-	3	2
C318	Web Technologies Lab	-	3	2
C401	Cryptography and Network Security	4	-	3
C402	UML & Design Patterns	4	-	3
C403	Mobile Computing	4	-	3
C406	UML & Design Patterns Lab	-	3	2
C407	Mobile Application Development Lab	-	3	2
C408	Software Testing Lab	-	3	2
C409	Hadoop & Big Data Lab	-	3	2
C411	Distributed Systems	4	-	3

Professional Elective (CS*) Courses for R13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C404	Software Testing Methodologies	4	--	3
C405	Hadoop and Big Data	4	--	3
C413	Human Computer Interaction	4	--	3
C410	Cloud Computing	4	--	3

Seminar Presentation and Project Work for R13				
Course Code	**Name of the Course**	**Instructional Hours & Credits**		
		T	**P**	**C**
C209	Seminar– I	--	--	1
C309	Seminar– II	--	--	1
C414	Project	-	-	9

Mandatory/ Non-Credit Based Courses forR13						
Course Code	**Name of the Course**	**Instructional Hours & Credits**				
		L	**T**	**P**	**C**	
C118	Engineering Physics – Virtual Labs– Assignments	--	-	2	-	

Table B.2.1.1.d: Course Modules for CSE Program

The PSOs are listed below in the following Table B.2.1.1.e.

Sl. No.	Program Specific Outcome
PSO1	Graduates exhibit knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.
PSO2	Graduates can adapt to evolving technologies for the design and development of full-stack applications in diversified fields with optimal programming skills.

Table B.2.1.1.e: List of PSOs

A. Process used to identify extent of compliance of university curriculum for attaining POs and PSOs (6)

Tools Used:

The tools used to identify the curriculum gaps every academic year to meet POs and PSOs are categorized as internal and external tools. The internal tools are COs, POs and PSOs assessment and the external tools are the feedbacks collected from various stake holders.

I. External Tools:

Stakeholders' feedback: For continuous curriculum improvement as affiliated institution, feedback from all the stakeholders is taken at the end of every year. This will be considered for revising the gaps in the curriculum. The following are the indicatives for the feedback from the stakeholders.

i. Outgoing Students feedback: In order to improve the Teaching-Learning Process (TLP) and gaps of the curriculum, student feedback system is used to share their feedback on the curriculum.

ii. Alumni Feedback: Feedback is collected from alumni students by inviting them once in a year for the alumni meet by the Alumni Association (AA). In order to bring awareness on the skill demands of the IT industry, the alumni students are suggested to share their current job experiences and current trends in recruitment with their juniors.

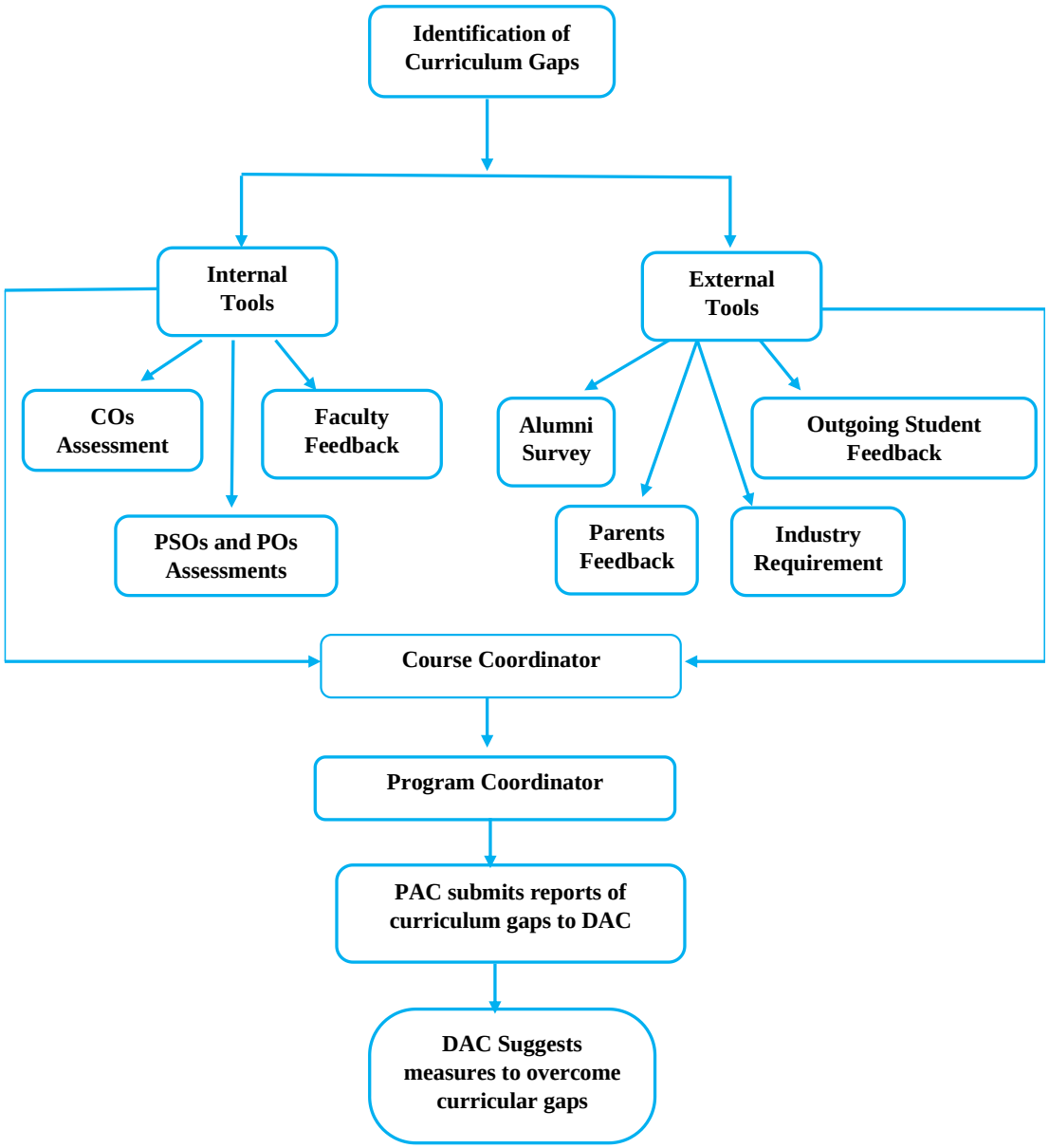

Figure B.2.1.1.b: Tools and process for Identification of Curricular gaps

iii. Parents Feedback: The institute organizes parents meet twice in every semester and tries to adopt the suggestions given by the parents.

iv. Employers Feedback: Once the student passes out of the institution and gets employed in other organization, Alumni Association (AA) takes care of his/her employer's feedback for healthy relationship with the other organization. Campus placement officer interacts with

officials from Industry who visit for recruitment and obtain their feedback.

The gap identification through Stakeholder feedback is represented in Table B.2.1.1f.

Sl. No.	Stakeholder	Gap Identification
1	Outgoing Students	Lack of coding skills on software's currently used in the industry.
2	Alumni	Exposure to new technologies used in the industry. Students should be credited to co-curricular activities, like motivating students that will encourage students to divert part of their time in research and development.
3	Parent	Inadequate communication skills to acquire employability
4	Employer	Inadequate aptitude and technical skills to solve complex engineering problems

Table B.2.1.1.f: Gap Identification through Stakeholder Feedback

II. Internal Tools:

The courses are mapped with POs and PSOs that help to identify the extent of curriculum compliance and take necessary action to fulfil the identified curriculum gaps. The mapping of the curriculum courses to Program Outcomes & Program Specific Outcomes for R13 Regulation is provided in **Table B.2.1.1.g** for R16 Regulation is provided in **Table B.2.1.1.i.**

Sl.No.	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	C101	English-I						2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	
2	C102	Mathematics-I	3.00	2.33	2.00	2.00		2.00	2.00	2.00			2.00	3.00	2.00	
3	C103	Engineering Chemistry	3.00	2.17	2.00	2.00	2.00	2.00	2.00	2.00				2.00	2.00	
4	C104	Computer Programming	2.83	2.00	2.33	2.00	3.00				2.00			1.50	2.33	2.33
5	C105	Environmental Studies			2.00		2.00	2.33	3.00	2.25	2.00		2.00	3.00	2.00	
6	C106	Engineering Mechanics	2.83	2.50	2.00	2.00	2.25								2.00	
7	C107	ECS Lab-I						2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	
8	C108	Chemistry Lab	2.67	2.00		2.00	2.00		2.00		2.00			2.00	2.00	
9	C109	Computer Programming Lab	3.00	2.33	3.00	2.33	3.00			1.00	2.00			1.50	2.33	2.33
10	C110	English-II						2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	
11	C111	Mathematics –III	3.00	2.33	2.00	2.00		2.00	2.00	2.00			2.00	3.00	2.00	
12	C112	Engineering Physics	3.00	2.00	2.33	2.00	2.00	2.00	2.00				2.00	3.00	2.00	
13	C113	Mathematics –II	3.00	2.00	2.33	2.00	2.00	2.00	2.00				2.00	3.00	2.00	
14	C114	PEHV						2.00	1.75	3.00	1.00	1.00	2.00	2.50	1.67	
15	C115	Engineering Drawing	2.83	2.17	2.00	2.00		2.00	2.00	2.00	2.00		2.00	3.00	2.00	
16	C116	ECS Lab-II						2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	
17	C117	Physics Lab	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00		2.00	2.00	
18	C118	EP VLA	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00		2.00	2.00	
19	C119	EWS & IT Lab	2.50	2.33	1.00		2.33				1.00				2.50	1.84
20	C201	MEFA						3.00	2.00	3.00	2.33	2.00	2.50	2.00	2.00	

21	C202	Data Structures	2.50	2.50	2.67	2.67	2.00	2.33			2.33		2.00	2.33	2.83	2.67
22	C203	Object Oriented Programming	2.50	2.50	2.50	2.33	2.00	2.33				2.00		2.50	2.83	2.67
23	C204	MFCS	3.00	2.67		2.83	2.00						3.00	2.00	2.67	
24	C205	Digital Logic Design	2.67	2.67	2.67		2.50	2.67			2.33	2.50	2.67	2.67	2.00	
25	C206	OOPS Lab	2.50	2.50	2.83	2.33	3.00			2.50	2.00			2.00	2.83	2.83
26	C207	Data Structures Lab	2.50	2.50	2.67	2.83	3.00	2.50			2.00		2.33	2.00	2.83	2.83
27	C208	Digital Logic Design Lab	2.50	3.00	2.67	2.67	3.00	2.67			2.67	2.67	2.67	2.67	2.83	
28	C209	Seminar – I	3.00	3.00	3.00	2.50	2.50	2.83		2.83	3.00	2.33	2.67	2.50	2.50	2.67
29	C210	Probability &Statistics	2.33	3.00		2.83								2.00	2.33	
30	C211	Java Programming	2.33	2.50	2.50	2.00	2.33	2.00			2.00		2.00	2.00	2.83	2.67
31	C212	Advance Data Structures Lab	2.50	2.50	2.67	2.50	2.00				2.00		2.00	2.00	2.83	2.83
32	C213	Computer Organization	2.50	2.50	2.67	2.00	2.50						2.00	2.00	2.83	2.83
33	C214	Formal Languages and Automata Theory	2.67	2.50	2.67	3.00					2.33	2.50		2.33	2.33	2.50
34	C215	Advance Data Structures Lab	2.67	2.67	2.83	2.83	3.00			2.83	2.33		2.00	2.00	2.83	2.67
35	C216	Java Programming Lab	2.50	2.67	2.83	2.67	3.00	2.50			2.33		2.00	2.00	2.83	2.67
36	C217	FOSS Lab	2.50	2.67	2.83	2.50	3.00	2.50			2.33	2.33	2.33	2.33	2.83	2.67
37	C301	Compiler Design	2.33	2.67	2.33	3.00					2.00			2.00	2.67	2.67
38	C302	Data Communications	2.50	2.67	2.67	2.33		2.33		2.83	2.33	2.67		2.33	2.67	

39	C303	Principles of Programming Languages	2.33	2.50	2.50	2.50	2.67						2.33		2.67	2.33
40	C304	Database Management Systems	2.33	2.33	2.67	3.00	2.67	2.50			2.00	2.00	2.00	2.33	2.83	2.83
41	C305	Operating System	2.33	2.33	2.50	2.67	2.33				2.00	2.50		2.33	2.83	2.83
42	C306	Compiler Design Lab	2.67	2.50	3.00	3.00	3.00			2.83	2.33			2.00	2.83	2.83
43	C307	Operating System &Linux Programming Lab	2.67	2.50	2.83	2.83	3.00	2.33		2.83	2.33	2.00		2.33	2.83	2.83
44	C308	Database Management Systems Lab	2.67	2.50	3.00	3.00	3.00	2.33		2.83	2.50	2.00	2.67	2.33	2.83	2.67
45	C309	Seminar – II	3.00	3.00	3.00	3.00	2.50	2.67	2.00	2.83	3.00	2.33	2.83	2.50	2.67	2.67
46	C310	Software Engineering	2.67	2.50	2.50	2.67	2.00	2.50		2.83	2.67	2.00	2.83	2.33	2.83	2.83
47	C311	Data Warehousing and Mining	3.00	2.67	2.50	3.00	2.67				2.00			2.33	2.83	2.67
48	C312	Computer Networks	2.50	2.83	2.50	2.83	2.33		2.00		2.50	2.00			2.67	2.67
49	C313	Design and Analysis of Algorithms	2.50	2.67	3.00	3.00	2.00	2.33		2.83	2.00	2.33	2.00	2.33	2.67	2.83
50	C314	Web Technologies	2.50	2.67	2.67	3.00	2.83	2.67			3.00	2.00		2.50	2.67	2.83
51	C316	IPR & Patterns						3.00	2.33	2.83	2.33	2.00	2.50	2.00		
52	C316	Computer Networks and	2.50	3.00	2.83	2.83	2.83	2.33		2.83	2.50	2.00		2.00	2.83	2.33

		Network Programming Lab														
53	C317	Software Engineering Lab	2.33	2.67	2.83	2.67	3.00	2.33		2.83	2.50	2.00	2.00	2.00	2.83	2.67
54	C318	Web Technologies Lab	2.33	3.00	3.00	3.00	3.00	2.33	2.00		2.67	2.00		2.00	2.83	2.83
55	C401	Cryptography and Network Security	2.33	2.50	2.33	2.83		2.33		3.00			2.00	2.00	2.83	2.83
56	C402	UML & Design Patterns	2.33	2.83	2.67	2.50	2.00	2.00	2.00	2.83	2.50	2.33	2.50	2.33	2.83	2.33
57	C403	Mobile Computing	2.33	2.50	2.33	2.67		2.00	2.00	2.83				2.00	2.67	2.67
58	C404	Software Testing Methodologies	2.33	2.50	2.50	2.67	2.00	2.33		3.00	2.33	2.33	2.67	2.33	2.67	2.83
59	C405	Hadoop and Big Data	2.33	2.67	2.50	3.00	2.33	2.00	2.00		2.50		2.33	2.33	2.83	2.83
60	C406	UML & Design Patterns Lab	2.67	2.67	3.00	2.67	3.00	2.00	2.33	2.83	2.33	2.00	2.33	2.00	2.67	2.83
61	C407	MAD Lab	2.50	2.67	2.50	2.83	3.00			2.83	2.33				2.83	2.83
62	C408	Software Testing Lab	2.50	2.67	2.50	2.67	3.00	2.00	2.00	2.83	2.50	2.33	2.83	2.33	2.83	2.67
63	C409	Hadoop and Big Data Lab	2.50	2.67	2.67	3.00	3.00		2.00	2.83	2.50		2.33	2.00	2.83	2.33
64	C410	Cloud Computing	2.33	2.33	2.33	2.00	2.00	2.00	2.33		2.33	2.00	2.00	2.50	2.83	2.33
65	C411	Distributed Systems	2.33	2.33	2.33	2.83	2.00	2.33			2.00		2.00	2.00	2.83	2.00
66	C412	Management Science						3.00	3.00	2.50	2.50	2.33	2.00	2.00		
67	C413	Human Computer Interaction	2.33	2.33	2.33	2.33	2.00								2.67	2.00

68	C414	Project	3.00	3.00	3.00	3.00	2.33	3.00	2.33	3.00	3.00	2.33	3.00	3.00	2.83	3.00
Average PO-PSO Mapping			**2.61**	**2.53**	**2.53**	**2.56**	**2.49**	**2.30**	**2.11**	**2.55**	**2.32**	**2.31**	**2.26**	**2.31**	**2.53**	**2.63**
Average Percentage (%)			**86.9**	**84.29**	**84.4**	**85.47**	**82.94**	**76.81**	**70.2**	**84.86**	**77.45**	**76.96**	**75.44**	**77.04**	**84.31**	**87.74**

Table B.2.1.1.g: Consolidated CO-PO-PSO Mapping for R13 Regulations

Compliance of Program Curriculum with PO & PSO for R13 Regulations:

The mapping of courses in the program to POs and PSOs shown in the Table B.2.1.1.g indicates the compliance of program curriculum in R13 regulations with POs & PSOs. From the mapping table, the following observations are made to define the compliance as:

- The Professional Core courses and electives like Software Engineering, Machine Learning, Artificial Intelligence, Hadoop and Big Data, Python Programming, Java Programming etc., satisfies PO1, PO2, PO3, PO4, PO5 to an extent of 82% - 87% on an average.
- The Basic Sciences and Humanities including management courses like English, English Communications Skills Lab, Environmental Studies, Management Science etc., satisfies PO7, PO8, PO9, PO10, PO11 to an extent of 70% - 85% on an average.
- The Engineering Sciences courses like Engineering Drawing, Engineering Mechanics etc., satisfy PO6 to an extent of 76% on an average.
- The Courses Seminar and Project satisfy PO8, PO9, PO10, PO11, and PO12 to an extent of 75% - 84% on an average.
- And all courses are mapped with PSO1 and PSO2 to an extent of 84% - 87% on an average.

PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Average PO-PSO Mapping	2.61	2.53	2.53	2.56	2.49	2.30	2.11	2.55	2.32	2.31	2.26	2.31	2.53	2.63
Average Percentage	86.9	84.29	84.4	85.47	82.94	76.81	70.2	84.86	77.45	76.96	75.44	77.04	84.31	87.74

Table B.2.1.1.h: Average mapping to courses in R13 curriculum to POs & PSOs

The Figure: B.2.1.1.c represents the R-13 curriculum compliance to POs and PSOs. In the figure blue color histogram represents the POs and PSOs whose average percentage mapping is more than 80 % and orange color represents below 80% for R13 Regulations.

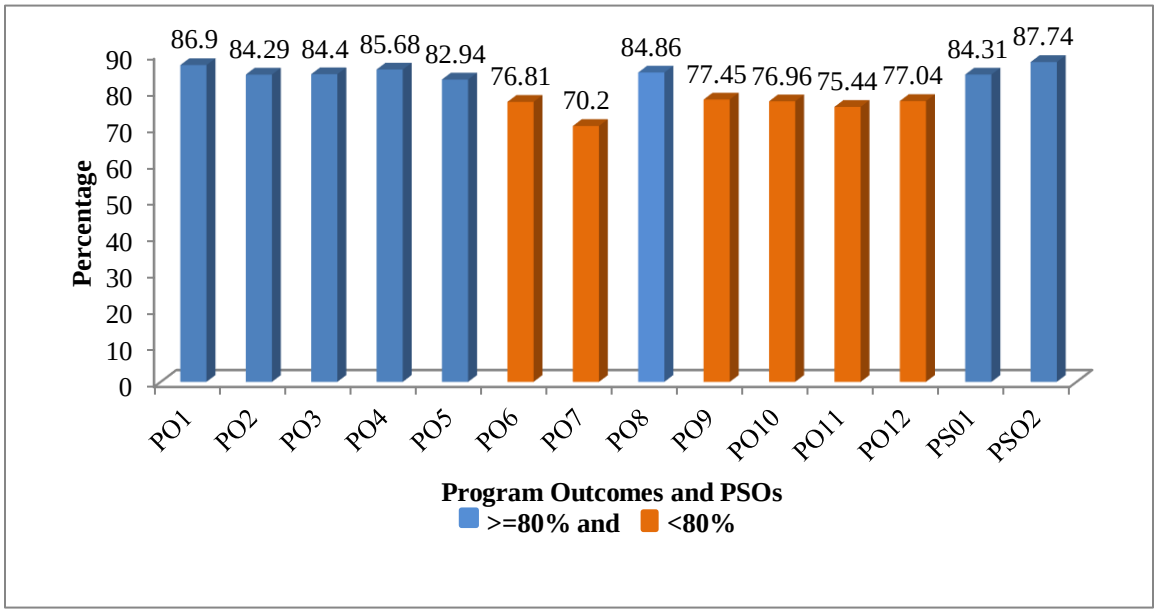

Figure B.2.1.1.c: R13 Curriculum Compliance to POs & PSOs

Sl. No.	Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	C101	English-I						2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.67	
2	C102	Mathematics-I	3.00	2.33		2.00				2.00				3.00	2.67	
3	C103	Applied Physics	2.00	2.50	2.33	2.00	2.00	2.00	2.00	2.00			2.00	3.00	2.67	
4	C104	Computer Programming	2.83	2.00	2.33	2.00	3.00				2.00			1.50	3.00	2.00
5	C105	Mathematics –II	3.00	2.00		2.00	2.00	2.00		2.25			2.00	3.00	2.33	
6	C106	Engineering Drawing	2.83	2.17	3.00	2.00		2.00			2.00		2.00	3.00	2.67	
7	C107	ECS Lab-I						2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.67	
8	C108	Physics Lab	3.00	2.00	2.00	2.00	2.00	2.00	2.00		3.00			2.00	2.33	
9	C109	Physics Virtual Lab	3.00	2.00	2.00			2.00		1.00	3.00			2.00	3.00	2.00
10	C110	Computer Programming Lab	3.00	2.33	3.00	2.33	3.00			2.00				1.50	2.67	
11	C111	English-II						2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.33	
12	C112	Mathematics –III	3.00	2.33		2.00								3.00	2.67	
13	C113	Applied Chemistry	2.33	2.33	2.67	2.83	2.5	2.5	2.6					2.54	2.33	
14	C114	Environmental Studies						2.00	3.00	3.00				3.00	2.33	
15	C115	Object Oriented Programming through C++	2.33	2.33	2.33	2.33	2.00	2.00		2.00	2.00				2.33	
16	C116	Engineering Mechanics	2.83	2.50	2.33	2.00				2.00					2.67	
17	C117	ECS Lab-II						2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.33	
18	C118	Chemistry Lab	2.67	2.33					2.00	2.00	2.00			2.00	2.00	
19	C119	Object Oriented Programming Lab	3.00	3.00	2.50	2.33	2.33	2.00			2.50			2.50	3.00	2.00
20	C201	Statistics with R Programming	2.33	2.5	2.5	2.5	2.5	2		3			2.54	2.33	2.33	
21	C202	MFCS	2.33	3.00		2.50								2.00	2.67	3.00
22	C203	Digital Logic Design	2.67	2.67	2.67			2.67			2.33	2.33	2.67	2.00	2.83	3.00
23	C204	Python Programming	2.83	2.67	2.5	2.33	2.67							2.00	2.67	2.00
24	C205	Data Structures through C++	2.33	2.33	2.33	2.67	2.00	2.00			1.67			2.00	2.33	1.50
25	C206	Computer Graphics	3	2.5	2.5	2.5	2			2.5	2		2	2	2.83	3.00
26	C207	Data Structures through C++ Lab	2.33	2.33	2.50	2.67	2.00	2.00			2.00		1.67	2.00	2.83	3.00

27	C208	Python Programming Lab	3	3	2.5	2.5	2.5							2	2.67	2.00
28	C209	Software Engineering	2.33	2.33	2.33	2.67	2.00			2.83	2.00	2.00	2.00	2.00	3.00	3.00
29	C210	Java Programming	2.33	2.33	2.33	2.00	2.33	2.00			2.00		2.00	2.00	2.33	1.00
30	C211	Advanced Data Structures	3.00	3.00	2.67	2.67	3.00	2.50			2.00		2.50	2.00	2.83	3.00
31	C212	Computer Organization	3.00	2.50	2.67	2.67					2.00		2.00	2.00	2.67	3.00
32	C213	Formal Languages and Automata Theory	2.50	3.00	2.50	2.67	2.50							2.00	2.33	3.00
33	C214	Principles of Programming Languages	2.67	2.83		2.50	2.33								2.50	3.00
34	C215	Advanced Data Structures Lab	3.00	3.00	2.67	2.67	3.00	2.00		2.83	2.00		2.00	2.00	2.50	3.00
35	C216	Java Programming Lab	3.00	3.00	2.50	2.67	2.50	2.00	2.00		2.00			2.00	2.83	3.00
36	C301	Compiler Design	2.67	2.67	2.50	3.00					2.00		2.00	2.00	2.83	3.00
37	C302	Unix Programming	2.5	2.83	2.83	2.5	2.5				2.5	2	2.44	2	2.67	2.00
38	C303	Object Oriented Analysis Design using UML	2.50	2.67	2.33	2.50	2.00	2.67	2.00	2.83	2.00	2.33	2.67		2.33	
39	C304	Database Management Systems	3.00	3.00	3.00	3.00	2.50	2.00	2.00		2.50		2.00	2.33	2.50	3.00
40	C305	Operating System	3.00	2.50	2.50	2.67		2.00				2.00			2.67	3.00
41	C306	Unified Modeling Lab	3.00	3.00	3.00	2.50	2.50	2.00	2.00		2.50	2.00	2.50		2.67	3.00
42	C307	Operating System &Linux Programming Lab	3.00	3.00	2.50	2.83	3.00	2.00		2.83	2.50	2.00		2.00	2.67	3.00
43	C308	Database Management System Lab	3.00	3.00	2.50	3.00	2.50	2.00		2.83	2.50		2.00	2.33	2.83	3.00
44	C309	PEHV						2.67	2.33	2.83	2.00	2.00		2.00	2.67	3.00
45	C310	Computer Networks	2.33	2.50	2.50	2.83	2.33	2.50	2.00	2.83		2.00	2.75		3.00	3.00
46	C311	Data Warehouse and Mining	2.33	3.00	2.83	3.00	2.33			2.83			2.50	2.50	3.00	3.00
47	C312	Design and Analysis of Algorithms	2.50	2.83	2.50	3.00		2.67				2.00	2.67	2.33	3.00	3.00
48	C313	Software Testing Methodologies	2.33	2.50	2.67	2.67		2.67			2.00	2.33	2.67	2.50	2.67	2.33
49	C314	Artificial Intelligence	2.5	2.67	2.5	2.33	3			2.83				2	3.00	2.50
50	C315	Network Programming Lab	3.00	2.83	2.67	2.83	3.00				2.00	2.33			3.00	3.00
51	C316	Software Testing Lab	3.00	2.50	3.00	2.67	2.50	2.33		2.83	2.50	2.33	2.50	2.50	2.00	

52	C317	Data Warehousing and Mining Lab	2.83	2.83	2.67	2.83	2.5			2.83	2.5			2.93	3.00	3.00
53	C318	IPR and Patents						3.00	2.50	2.83					3.00	3.00
54	C401	Cryptography and Network Security	2.33	2.83	2.50	2.83		2.50					2.75	2.50	3.00	3.00
55	C402	Software Architectures & Design Patterns	2.33	2.5	3	2.33		2		3	3			2.37	3.00	3.00
56	C403	Web Technologies	3.00	2.50	3.00	3.00	2.83	2.67		2.83	2.67			2.20	2.67	3.00
57	C404	MEFA						3.00	2.00	2.83	2.33	2.00	2.50	2.00	3.00	2.00
58	C405	Big Data Analytics	3	2.50	2.5	3.00	2.3	2.83	2.33	3	2.67	2	2.54	2.1	3.00	2.50
59	C406	Cloud Computing	2.83	2.50	2.50	2.50	2.50	2.50	2.33			2.00	2.50	2.17	3.00	3.00
60	C407	Software Architectures & Design Patterns Lab	2.67	3	3	2.5	3			2.83	2			2.37	3.00	3.00
61	C408	Web Technologies Lab	2.67	3.00	3.00	2.67	3.00	2.50	2.50	2.83	2.50	2.33		2.50	3.00	2.00
62	C409	Distributed Systems	2.67	2.33	2.33	2.67	2.25	2.50		2.83	2.50	2.00		2.50	3.00	3.00
63	C410	Management Science						3.00	3.00	2.83	2.50	2.00	2.00	2.00	3.00	3.00
64	C411	Machine Learning	2.67	2.83	2.67	3	2.33							2.43	3.00	2.33
65	C412	Concurrent and Parallel Programming	3	2.67	2.67	3	2.5								3.00	2.00
66	C413	Seminar	3.00	3.00	3.00	3.00	2.50	3.00	2.50	3.00	3.00	3.00	2.20	2.00	3.00	3.00
67	C414	Project	3.00	3.00	3.00	3.00	3.00	3.00	2.50	3.00	3.00	3.00	2.50	3.00	3.00	3.00
Average PO-PSO Mapping			**2.73**	**2.62**	**2.60**	**2.58**	**2.49**	**2.31**	**2.24**	**2.56**	**2.33**	**2.32**	**2.27**	**2.31**	**2.72**	**2.69**
Average Percentage			**90.88**	**87.43**	**86.75**	**85.86**	**82.97**	**77.03**	**74.77**	**85.31**	**77.65**	**77.31**	**75.56**	**77.15**	**90.55**	**89.69**

Table B.2.1.1.i: Consolidated CO-PO-PSO Mapping for R16 Regulations

Compliance of Program Curriculum with PO & PSO for R16 Regulations:

The mapping of courses in the program to POs and PSOs shown in the Table B.2.1.1.i indicates the compliance of program curriculum in R16 regulation with POs & PSOs. From the mapping table, the following observations are made to define the compliance as:

- The Professional Core courses and electives like Software Engineering, Machine Learning, Artificial Intelligence, Hadoop and Big Data, Python Programming, Java Programming etc., satisfies PO1, PO2, PO3, PO4 and PO5 to an extent of 82% - 90% on an average.
- The Basic Sciences and Humanities including management courses like English, English Communications Skills Lab, Environmental Studies, Management Science etc., satisfies PO7, PO8, PO9, PO10, PO11 to an extent of 70% - 84% on an average.
- The Engineering Sciences courses like Engineering Drawing, Engineering Mechanics etc., satisfy PO6 to an extent of 77% on an average.
- The Courses Seminar and Project satisfy PO8, PO9, PO10, PO11, and PO12 to an extent of 77% - 85% on an average.
- And all courses are mapped with PSO1 and PSO2 to an extent of 89% - 90% on an average.

PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Average PO-PSO Mapping	2.73	2.62	2.60	2.58	2.49	2.31	2.24	2.56	2.33	2.32	2.27	2.31	2.72	2.69
Average Percentage	90.88	87.43	86.75	85.86	82.97	77.03	74.77	85.31	77.65	77.31	75.56	77.15	90.55	89.69

Table B.2.1.1.j: Average mapping to courses in R16 curriculum to POs & PSOs

The Figure B.2.1.1.d represents the R16 curriculum compliance to POs and PSOs. In the figure blue color histogram represents the POs and PSOs whose average percentage mapping is more than 80 % and orange color represents below 80% for R16 Regulations.

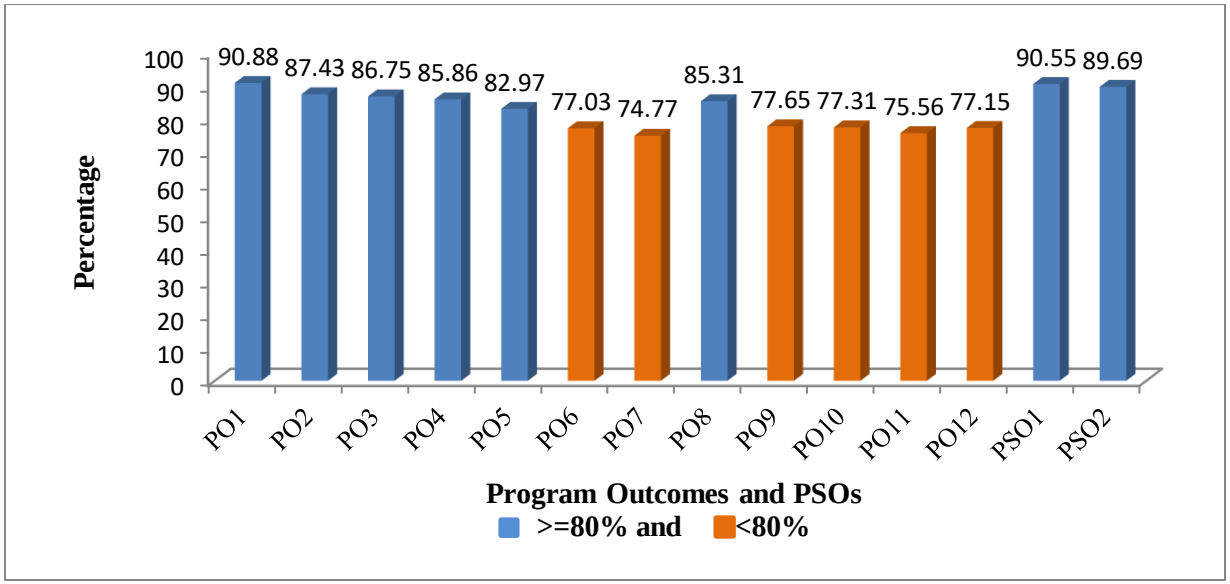

Figure B.2.1.1.d: R16 Curriculum compliance to POs & PSOs

The CO-PO-PSO mapping of R13 and R16 are compared and shown below in Table B.2.2.1k:

Percentage of CO-PO-PSO Mapping	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
R13	86.9	84.29	84.4	85.47	82.94	76.81	70.2	84.86	77.45	76.96	75.44	77.04	84.31	87.74
R16	90.88	87.43	86.75	85.86	82.97	77.03	74.77	85.31	77.65	77.31	75.56	77.15	90.55	89.69

Table B.2.1.1.k: Comparison of CO-PO Mapping for R13 and R16 Regulations

In the Figure B.2.1.1.e blue and Maroon color histogram represents the POs and PSOs whose average percentage mapping is more than 80 % for R13 and R16 Regulations respectively and orange and yellow color histogram represents the POs and PSOs whose average percentage mapping is less than 80 % for R13 and R16 Regulations respectively.

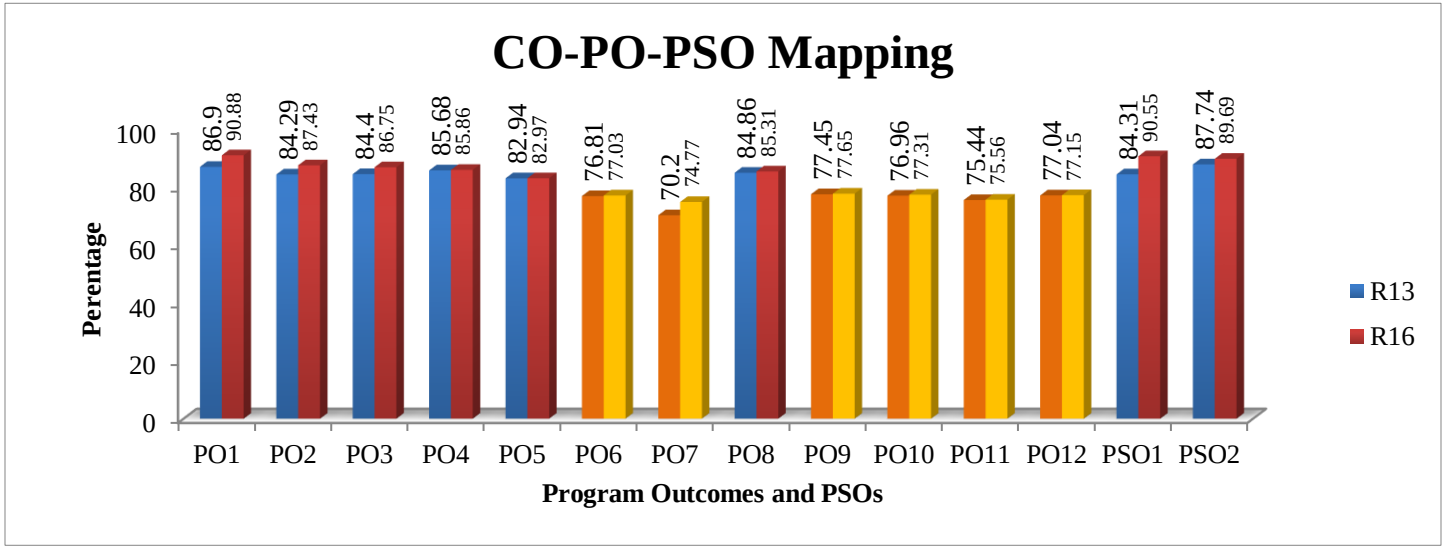

Figure B.2.1.1.e: Comparison of CO-PO-PSO Mapping for R13 and R16 Regulations

On comparing the CO-PO and CO-PSO mapping for R13 and R16 regulations from Table B.2.2.1k, it is very clear that there is improvement of POs and PSOs mapping from R13 to R16 regulation.

B. List the curricular gaps for the attainment of defined POs and PSOs (4)

The mapping between Course Outcomes and Program Outcomes are observed from Table B.2.1.1.g and Table B.2.1.1.i. It is observed that the curriculum provided by the university is in compliance with most of the POs. Few courses maps with Program Outcomes such as Engineering Knowledge (PO1), Problem Analysis (PO2), Design/ Development of Solutions (PO3),Conduct Investigations of Complex Problems (PO4), Modern Tool Usage (PO5)and Ethics(PO8) map highly whereas remaining Program Outcomes such as, the Engineer & Society (PO6), Individual and Team Work (PO9), Communications (PO10), Project Finance and Management (PO11) and Lifelong Learning(PO12) map moderately and Program Outcome Environment and Sustainability (PO7) maps with less correlation compared to other POs.

In the process of enhancing the compliance of curriculum with the program outcomes, there are few curriculum gaps identified. The above gaps are addressed by addition of add-on courses and training programs. However, all those gaps are taken care by adding skill-based components and introducing add-on Lab experiments and few contents in theory courses along with the curriculum provided by the university.

The average percentage of program curriculum to POs and PSOs is computed as shown in Table B.2.1.1.h for R13 regulations and Table B.2.1.1.j for R16 regulations. The corresponding plot is shown in Figure B.2.1.1.c and Figure B.2.1.1.d. The curriculum incorporates academically challenging environment that helps students develop problem solving skills to design and develop solutions to complex engineering problems. However, the gaps in the curriculum are identified by considering the POs that are mapped with less than 80% and referring stakeholder feedback from Table B.2.1.1.f is indicated in the Table B.2.1.1.k.

Sl. No	Identified PO	Gap Identification	Relevance to PSOs
1	PO6	**G1** - Motivation towards societal responsibility	PSO1
2	PO6	**G2** -Motivation towards legal and safety issues	PSO1
3	PO7	**G3** - Motivation on environment sustainability	PSO1
4	PO9	**G4** -Lack of participation in inter and intra college fests	PSO1
5	PO10	**G5** -Inadequate communication skills to acquire employability	PSO1
6	PO11, PO12	**G6** -Inadequate exposure to real-time projects to acquire lifelong learning skills	PSO1, PSO2

Table B.2.1.1.l: Gaps Identified through Curriculum compliance to PO & PSO for R13 and R16 Regulations

Sl. No.	Stakeholder	Gap	Relevance to POs and PSOs
1	Outgoing Students	**G7** - Lack of coding skills on software's currently used in the industry	PO4 PSO1, PSO2
2	Alumni	**G8** - Exposure to new technologies used in the industry	PO4 PSO1, PSO2
		G4 - Students should be credited to co-curricular activities, like motivating students that will encourage students to divert part of their time in research and development.	PO1, PO11 PSO1, PSO2
3	Parent	**G5** -Inadequate communication skills to acquire employability	PO10, PO12 PSO1
4	Employer	**G9** - Inadequate aptitude and technical skills to solve complex engineering problems	PO4 PSO1

Table B.2.1.1.m: Gaps Identified through Stakeholder feedback

2.1.2. State the Delivery Details of the Content Beyond the Syllabus for Attainment of POs and PSOs (10)

(Provide details of the additional course/learning material/content/laboratory experiments/projects, etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)

A. Steps taken to get identified gaps included in the curriculum (2)

The Figure B.2.1.1.b indicates the process followed by the program to identify the curriculum gaps. Information gathered from the above-mentioned stakeholders' interactions are discussed and deliberated by the program coordinator to identify curricular gaps. The modifications and suggestions made by the stakeholders about curriculum are duly informed to the Program Assessment Committee (PAC). PAC discusses the advantages and disadvantages of the current scheme and from the compliance of POs & PSOs and the committee identifies the gaps, submits the report based on the suggestions to Department Advisory Committee (DAC). DAC will then finalize the curricular gaps based on the assessment report submitted by the PAC. The identified curricular gaps are intimated to affiliated university JNTU Kakinada by PAC.

B. Delivery details of content beyond syllabus (5)

Department of CSE addresses these gaps to enhance the skills of the students to improve their employability. To fill the gaps in the curriculum and also to prepare the students in accordance with the department vision and mission, the department organizes lot of activities like guest lectures, seminars, workshops, training programs, additional labs and lab experiments, industrial visits to intensify the curriculum.

The activities which that took place in the Department for bridging the curriculum gaps so as to attain POs and PSOs, are illustrated in Table B.2.1.2.a, Table B.2.1.2.b and Table B.2.1.2.c.

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of Students	Relevance to POs, PSOs
1	**G6** - Inadequate exposure to real-time projects	Workshop on Udacity Nano Degree Program for Android Developer	18-01-2019 to 22-01-2019	Mr.M.V.Gopi,Trainer, APSSDC	70%	PO11 PSO1, PSO2
2	**G8** -Exposure to new technologies	Seminar on Cyber Security	10-12-2019	Mr. S. Chandra Mouli, Project Manager, Bank of America	90%	PO4 PSO1,PSO2
3	**G7** -Lack of coding skills	Seminar on Machine learning with R programming	10-12-2019	Dr. A. Krishna Mohan, Professor, JNTUK	90%	PO4 PSO1,PSO2
4	**G8** -Exposure to new technologies	Seminar on Recent Trends in Emerging Technologies	10-01-2019	Dr. Ch. Jaya Suma, Professor, JNTUK	75%	PO4 PSO1,PSO2
5	**G8** -Exposure to new technologies	Guest Lecture on Importance of IoT in Marine Engineering	11-01-2019	Mr. S.K. Dubey, Joint Director, STPI	95%	PO4 PSO1,PSO2
6	**G8** -Exposure to new technologies	Workshop on Google Android Phase-I	22-08-2018 to 24-08-2018	Ms.Hema Mr.G.Srikanth, Trainers, APSSDC	45%	PO4 PSO1,PSO2
7	**G8** -Exposure to new technologies	Workshop on Google Android Phase-II	21-09-2018 to 23-09-2018	Ms.Hema Mr.G.Srikanth, Trainers, APSSDC	46%	PO4 PSO1,PSO2
8	**G8** -Exposure to new technologies	Workshop on Android Development Certification Phase-I	8-05-2018 to 14-05-2018	Ms.Hema Mr.G.Srikanth, Trainers, APSSDC	30%	PO4 PSO1,PSO2
9	**G8** -Exposure to new technologies	Workshop Android Development Certification Phase-II	11-08-2018 to 16-08-2018	Ms.Hema Mr.G.Srikanth, Trainers, APSSDC	69%	PO4 PSO1,PSO2
10	**G8** -Exposure to new technologies	Workshop on IoT	08-05-2018 to 14-05-2018	Ms.Hema Mr.G.Srikanth, Trainers, APSSDC	90%	PO4 PSO1,PSO2
11	**G6** -Inadequate exposure to real-time projects	Workshop on Gamification with AR & VR	26-12-2018 to 09-01-2019	Mr.T.Ravi Kishore, P.Alluru Raju Game developer, Buildbox	67%	PO11 PSO1,PSO2

12	**G8** -Exposure to new technologies	Workshop on Scale	26-07-2018 to 28-07-2018	Ms. Shreya Adabala, Mr. Sanket Dhadke, Mr. Rafae shaik, Ms. Hashmitha Rani, Trainers, APSSDC	77%	PO4 PSO1,PSO2
13	**G9** -Inadequate technical skills	Campus Placements & Training	26-12-2018 to 05-01-2019	Mr.Naveen, Mr.Rayule, Mr. Shankar, Trainers, CCC	100%	PO4 PSO1
14	**G9** -Inadequate aptitude skills	Campus Placements & Training	23-04-2018 to 25-05-2018	CCC Team	100%	PO4 PSO1
15	**G5** - Inadequate communication skills	Campus Placements & Training	23-04-2018 to 05-05-2018	IGNITE Team	100%	PO10 PSO1
16	**G9** -Inadequate aptitude skills	Campus Placements & Training	23-04-2018 to 05-05-2018	Knowledge Point Team	98%	PO4 PSO1
17	**G9** -Inadequate technical skills	Training in Java Programming	07-05-2018 to 25-05-2018	Mr. Krishna Prasad, Director, KP Technologies	96%	PO4 PSO1
18	**G9** -Inadequate technical skills	Training on C Language	07-05-2018 to 25-05-2018	Mr. Dinesh Reddy, Associate Professor, VIIT	98%	PO4 PSO1
19	**G9** -Inadequate aptitude skills	Campus Placements & Training	26-07-2018 to 04-08-2018	FACE Team	98%	PO4 PSO1
20	**G9** -Inadequate technical skills	Training on Data Structures	29-05-2018 to 02-06-2018	Mr. Dinesh Reddy, Associate Professor, VIIT	100%	PO4 PSO1
21	**G9** –Inadequate technical skills	Campus Placements & Training	26-07-2018 to 04-08-2018	FACE Team	96%	PO4 PSO1
22	**G5** –Inadequate communication skills	Campus Placements & Training	20-08-2018 to 30-08-2018	FACE Team	98%	PO10 PSO1

23	**G5** –Inadequate communication skills	Campus Placements & Training	25-09-2018 to 29-09-2018	Machine Ignite Team	100%	PO10 PSO1
24	**G9** –Inadequate technical skills	Campus Placements & Training	11-11-2018 to 17-11-2018	Machine Ignite Team	98%	PO4 PSO1
25	**G9** –Inadequate technical skills	Campus Placements & Training	04-12-2018 to 06-12-2018	CCC Team	96%	PO4 PSO1
26	**G1** -Motivation towards societal responsibility	Guest lecture on developing engineering applications	03-11-2018	Mr. S. Chandra Mouli, Project Manager, BOA	100%	PO6 PSO1
27	**G3** -Motivation on environment sustainability	Seminar on environment sustainability	22-12-2018	Mr. K. Sumanth, Assistant Professor, AU	98%	PO7 PSO1
28	**G2** -Motivation towards legal and safety issues	Awareness program on Cyber Crime	08-03-2019	Mr. K. Prabhakar Babu, Assistant Commissioner of Police, Zone2, Vskp	90%	PO6 PSO1
29	**G4** -Lack of participation in inter and intra college fests	Vista 2k18	14-09-2018 to 15-09-2018	Mr. A.N. Suresh, Assistant Professor	60%	PO9, PO11 PSO1, PSO2
30	**G4** -Lack of participation in inter and intra college fests	Yuvtarang 2k19	16-02-2019 to 17-02-2019	Mr. B.A.Ganesh, Assistant Professor	70%	PO9 PSO1, PSO2

Table B.2.1.2.a: Delivery details of the Content beyond the Syllabus CAYm1 (2018-19)

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of Students	Relevance to POs, PSOs
1	**G8** -Exposure to new technologies	Workshop on Google Android Fundamentals	07-12-2017 to 09-12-2017	Ms. Hema Mr. G. Srikanth, Trainers, APSSDC	75%	PO4 PSO1,PSO2
2	**G8** - Exposure to new technologies	Workshop on BOOTSTRAP	21-07-2017 to 23-07-2017	Mr. Ganesh, Trainer, Brain-O-Vision	56%	PO4 PSO1,PSO2

3	**G8** - Exposure to new technologies	Workshop on AP Cloud Mean Stack And Cloud Developer	27-11-2017 to 29-112017	AP Cloud Team, Miracle Software Solutions, Visakhapatnam	58%	PO4 PSO1,PSO2
4	**G8** - Exposure to new technologies	AWS Skill Guru Workshop	30-05-2018 to 31-05-2018	Mr. Gopi, Mr. Lokesh, Trainers, APSSDC	33%	PO4 PSO1,PSO2
5	**G9** – Inadequate technical skills	Campus Placements & Training	30-12-2016 to 06-01-2017	CCC Team	96%	PO4 PSO1
6	**G7** – Lack of coding skills	Training on Java	12-12-2016 to 06-01-2016	Mr. Krishna Prasad, Director, KP technologies	98%	PO4 PSO1,PSO2
7	**G5** – Inadequate communication skills	Campus Placements & Training	06-02-2017 to 14-03-2017	CCC Team	96%	PO10 PSO1
8	**G9** - Inadequate aptitude skills	Campus Placements & Training	21-02-2017 to 18-03-2017	Mr. Sekhar Mr. Sajany, Trainers, IGIAT	98%	PO4 PSO1
9	**G9** –Inadequate technical skills	Campus Placements & Training	21-02-2017 to 18-03-2017	CATIA Team	100%	PO4 PSO1
10	**G5** –Inadequate communication skills	Campus Placements & Training	25-04-2017 to 10-05-2017	CCC Team	96%	PO10 PSO1
11	**G9** -Inadequate aptitude skills	Campus Placements & Training	27-04-2017 to 10-05-2017	CCC Team	100%	PO4 PSO1
12	**G9** –Inadequate technical skills	Campus Placements & Training	27-06-2017 to 19-07-2017	CCC Team	100%	PO4 PSO1
13	**G5** –Inadequate communication skills	Campus Placements & Training	07-08-2017 to 23-07-2017	CCC Team	100%	PO10 PSO1
14	**G9** -Inadequate aptitude skills	Campus Placements & Training	26-08-2017	CCC Team	96%	PO4 PSO1

15	**G9** –Inadequate technical skills	Campus Placements & Training	30-08-2017 to 05-10-2017	Pseudo Code Team	96%	PO4 PSO1
16	**G9** –Inadequate technical skills	Campus Placements & Training	14-11-2017 to 24-11-2017	CATIA Team	98%	PO4 PSO1
17	**G5** –Inadequate communication skills	Campus Placements & Training	12-11-2017 to 01-12-2017	CCC Team	100%	PO10 PSO1
18	**G1** -Motivation towards societal responsibility	Guest lecture on developing engineering applications	04-01-2018	Mr. S. Chandra Mouli, Project Manager, BOA	98%	PO6 PSO1
19	**G3** -Motivation on environment sustainability	Seminar on environment sustainability	17-06-2017	Mr. K. Sumanth, Assistant Professor, AU	100%	PO7 PSO1
20	**G2** -Motivation towards legal and safety issues	Awareness program on Cyber Crime	08-03-2018	Mr. M. Avatharam, CI, Gajuwaka, Vskp	90%	PO6 PSO1
21	**G4** -Lack of participation in inter and intra college fests	Vista 2k17	14-09-2017 to 15-09-2017	Mr. A.N. Suresh, Assistant Professor	55%	PO9, PO11 PSO1, PSO2
22	**G4** -Lack of participation in inter and intra college fests	Yuvtarang 2k18	06-01-2018 to 07-01-2018	Mr. B.A.Ganesh, Assistant Professor	65%	PO9 PSO1, PSO2

Table B.2.1.2.b: Delivery details of the Content beyond the Syllabus CAYm2(2017-18)

Sl. No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of Students	Relevance to POs, PSOs
1	**G5** - Inadequate communication skills	Campus Placements & Training	02-05-2016 to 19-05-2016	Mr.Jatindhar, Mr.Shasidhar, Mr.Vishnu, Trainers, Talentio	90%	PO10 PSO1
2	**G8** - Exposure to new technologies	Workshop on IoT and Big data	05-05-2016 to 07-05-2016	Mr. Kamaraju Mr.Suresh, Trainers, Infosys HR Team	85%	PO5 PSO1, PSO2

3	**G9** - Inadequate aptitude skills	Campus Placements & Training	09-05-2016 to 21-05-2016	Mr.Jagannath Rao, Mr.ManishWope , Ms.Radhika,Ms.Rathi, Ms.Janhvi Singh, Trainers, FACE	100%	PO4 PSO1
4	**G9** - Inadequate technical skills	Campus Placements & Training	02-05-2016 to 24-05-2016	Mr.Naveen, Mr.Rayule,Mr.Shankar, Trainers, CCC	98%	PO4 PSO1
5	**G8** -Exposure to new technologies	International Workshop on Integrated System Health Management	27-05-2016 to 28-05-2016	Dr. VanamUpendranath, Senior principal scientist, National aerospace laboratories (NAL)	56%	PO4 PSO1,PSO2
6	**G6** - Inadequate exposure to real-time projects	Workshop on Tech Project EXPO	22-06-2016 to 23-062016	VIIT Team, Visakhapatnam	50%	PO11 PSO1,PSO2
7	**G8** - Exposure to new technologies	Workshop on ISB Design and Thinking	09-07-2016 to 10-07-2016	ISB Team Hyderabad	85%	PO4 PSO1,PSO2
8	**G9** - Inadequate technical skills	Campus Placements & Training	11-07-2016 to 04-08-2016	Mr.Jatindhar, Mr.Shasidhar, Mr.Vishnu, Trainers, Talentio	99%	PO4 PSO1
9	**G9** -Inadequate technical skills	Campus Placements & Training	19-07-2016 to 26-07-2016	Mr.Naveen, Mr.Rayule,Mr.Shankar, Trainers, CCC	98%	PO4 PSO1
10	**G9** -Inadequate aptitude skills	Campus Placements & Training	01-08-2016 to 13-08-2016	Mr.Naveen, Mr.Rayule,Mr.Shankar, Trainers, CCC	97%	PO4 PSO1
11	**G9** -Inadequate aptitude skills	Campus Placements & Training	16-08-2016 to 24-08-2016	Mr.Jatindhar, Mr.Shasidhar, Mr.Vishnu, Trainers, Talentio	96%	PO4 PSO1
12	**G9** -Inadequate technical skills	Campus Placements & Training	22-09-2016 to 24-09-2016	Mr. Krishna Prasad, Director, KP Technologies	100%	PO4 PSO1
13	**G9** -Inadequate aptitude skills	Campus Placements & Training	29-09-2016 to	Mr.Jatindhar, Mr.Shasidhar,	98%	PO4 PSO1

			13-10-2016	Mr.Vishnu, Trainers, Talentio		
14	**G8** - Exposure to new technologies	Workshop on Emerging Technologies	30.09.2016 To 01-10-2016	Mr. P BharagvNaidu, Mr. K Raja Kumar. Kony IT Services.	100%	PO4 PSO1,PSO2
15	**G9** - Inadequate technical skills	Campus Placements & Training	14-10-2016 to 21-10-2016	Mr.Jatindhar, Mr.Shasidhar, Mr.Vishnu, Trainers, Talentio	99%	PO4 PSO1
16	**G7** -Lack of coding skills	Training in Java	28.11.2016	Mr. Krishna Prasad, Director, KP Technologies	100%	PO4 PSO1,PSO2
17	**G1** -Motivation towards societal responsibility	Guest Lecture on Legal Awareness	20.2.2017	Mr.R.VNage Sundar Senior Civil Judge, District Court Vishakapatnam	100%	PO6 PSO1
18	**G1** -Motivation towards societal responsibility	Guest lecture on Anger and Stress	21.2.2017	Dr.Shylaja Nair. St. Joseph's College for Women	100%	PO6 PSO1
19	**G8** - Exposure to new technologies	Workshop on Virtual Reality	27-02-2017 to 28-02-2017	JNTUKVijayanagaram Team.	100%	PO1, PO2, PO5 PSO1,PSO2
20	**G2** -Motivation towards legal and safety issues	Awareness program on Cyber Crime	08-03-2018	Mr. Y. Kishore Kumar, CI, Duvvada, Vskp	90%	PO6 PSO1
21	**G4** -Lack of participation in inter and intra college fests	Vista 2k16	14-09-2016 to 15-09-2016	Mr. A.N. Suresh, Assistant Professor	50%	PO9, PO11 PSO1, PSO2
22	**G4** -Lack of participation in inter and intra college fests	Yuvtarang 2k17	07-01-2017 to 08-01-2017	Mr. B.A.Ganesh, Assistant Professor	60%	PO9 PSO1, PSO2

Table B.2.1.2.c: Delivery details of the Content beyond the Syllabus CAYm3 (2016-17)

To improve the curriculum and prepare the students to develop their ability in understanding the concepts, several measures are taken by the department to fill the curriculum gaps and teach the concepts beyond the syllabus.

C. Mapping of content beyond syllabus with the POs and PSOs (3)

The above Content beyond syllabus mappings with POs and PSOs is consolidated presented below.

Sl. No.	POs/PSOs/ Topics	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	Pre-placement Training	-	-	-	✓	-	-	-	-	-	✓	-	✓	✓	-
2	Training on Coding skills	-	-	-	✓	-	-	-	-	-	-	-	-	✓	✓
3	Guest lectures	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	Workshops	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	Technical/ Cultural Fests	-	-	-	-	-	-	-	-	✓	-	✓	-	✓	✓

Table B.2.1.2.d: Mapping of content beyond Syllabus with the POs & PSOs

Impact Analysis:

- Increased students project development skills.
- Enhancement in student's technical skills.
- Enhancement in student's aptitude skills.
- Enhancement in student's communication and life skills.
- Improvement in student's team spirit and leadership skills.
- Improvement of PO and PSO mapping on comparing with previous years.

2.2. Teaching-Learning Processes(100)

2.2.1. Describe Processes Followed to Improve Quality of Teaching & Learning(25)

(Processes may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real world examples, collaborative learning, quality of Laboratory experience with regard to conducting experiments, recording observations, analysis of data etc. encouraging bright students, assisting weak students etc. The implementation details and impact analysis need to be documented)

Effective content delivery, selection of teaching methodologies and effective assessment etc. plays a vital role in teaching-learning process. The course coordinator will take the suggestions from module coordinator and program coordinator to design the course delivery effectively in stipulated time.

A. Adherence to Academic Calendar (3)

The institute academic calendar is circulated to the departments towards the end of the previous academic year in adherence to the university academic calendar. The department academic calendar is prepared adhering to the institute calendar. The department academic calendar is implemented as per schedule with respect to commencement of class work, mid-I and mid-II examinations, last working day, end semester exams (theory) and end semester exams (practical) in each semester/year. In addition, FDPs, students counselling, remedial classes, guest lectures, workshop/symposia, industrial visits, Student Review Committee (SRC) meetings etc., also included in the academic calendar.

A copy of University calendar for the academic year 2019-20 for IV year is given below:

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Directorate of Academic & Planning
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA-533003, Andhra Pradesh, INDIA
(Established by AP Government Act No. 30 of 2008)

Lr. No. JNTUK/DAP/AC/B. Tech/IV Year/2019-20 *Date: 30-05-2019*

Dr. A. Mallikarjuna Prasad
M.E, Ph.D.,
Director, Academic Planning

To
All the Principals of Affiliated Colleges,
JNTUK, Kakinada

ACADEMIC CALENDAR FOR B.TECH IV YEAR (2016 BATCH)

I SEMESTER			
Description	**From**	**To**	**Weeks**
Commencement of Class Work	**10.06.2019**		
I Unit of Instructions	10.06.2019	03.08.2019	8W
I Mid Examinations	05.08.2019	10.08.2019	1W
II Unit of Instructions	12.08.2019	05.10.2019	8W
II Mid Examinations	07.10.2019	12.10.2019	1W
Preparation & Practicals	14.10.2019	19.10.2019	1W
End Examinations	21.10.2019	02.11.2019	2W
Commencement of II Semester Class Work	**18.11.2019**		
II SEMESTER			
I Unit of Instructions	**18.11.2019**	11.01.2020	8W
I Mid Examinations	13.01.2020	23.01.2020	1W
II Unit of Instructions	24.01.2020	21.03.2020	8W
II Mid Examinations	23.03.2020	28-03-2020	1W
Preparation	30.03.2020	04.04.2020	1W
End Examinations	06.04.2020	18.04.2020	2W

A.M.prasad
Director Academic Planning

Copy to the Secretary to the Hon'ble Vice Chancellor, JNTUK.
Copy to PA to the Rector, JNTUK.
Copy to PA to the Registrar, JNTUK.
Copy to PA to the Director of Evaluation, JNTUK.

Figure B.2.2.1.a: University calendar for the Academic Year 2019-20

A copy of department academic calendar prepared for the academic year 2019-20, Semester- I and II is given below:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
Approved by AICTE, New Delhi, Affiliated to JNTU Kakinada
Kapujaggaraju Peta, VSEZ(post), Gajuwaka, Visakhapatnam-530049,AP

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC CALENDAR 2019-20, SEMESTER I

Month	Week	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Commencement 10/06/2019 – II,III, & IV
JUNE	1.	10	11	12	13	14	15	16	
	2.	17	18	19	20	21	22	23	
	3.	24	25	26	27	28	29	30	13 July Second Saturday 12 Aug – Bakrid 2 Sep - Vinayakachavithi 10 Sep – Moharam 2 Oct - Gandhijayanthi 7 – 9 Oct – Dasara
JULY	4.	1	2	3	4	5	6	7	
	5.	8	9	10	11	12	13	14	
	6.	15	16	17	18	19	20	21	
	7.	22	23	24	25	26	27	28	
AUG	8.	29	30	31	1	2	3	4	
	9.	5	6	7	8	9	10	11	15 Aug – Independence Day 5 Sep – Teacher's Day 14 Sep – Engineers Day
	10.	12	13	14	15	16	17	18	
	11.	19	20	21	22	23	24	25	
	12.	26	27	28	29	30	31	1	
SEP	13.	2	3	4	5	6	7	8	
	14.	9	10	11	12	13	14	15	
	15.	16	17	18	19	20	21	22	
	16.	23	24	25	26	27	28	29	
OCT	17.	30	1	2	3	4	5	6	5 – 10 Aug : II, III & IV B Tech I Semester **MID 1** examination 7 – 12 Oct: II, III & IV B Tech I Semester **MID 2** examinations 14 – 19 Oct II, III & IV B Tech I Semester **External lab examinations** 21 Oct – 3 Nov: II, III & IV B Tech I **Semester end theory examinations**
	18.	7	8	9	10	11	12	13	
	19.	14	15	16	17	18	19	20	
	20.	21	22	23	24	25	26	27	
NOV	21.	28	29	30	31	1	2	3	

Figure B.2.2.1.b: Department Calendar for the Academic Year 2019-20 Semester-I

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
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Kapujaggaraju Peta, VSEZ(post), Gajuwaka, Visakhapatnam-530049,AP

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC CALENDAR 2019-20, SEMESTER II

Month	Week	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Commencement 18/11/2019 II, III,& IV
NOV	1.	18	19	20	21	22	23	24	25 Dec- Christmas 01 Jan- New Year day 13-17 Jan- Pongal 21 Feb- Sivarathri 25 Mar- Ugadhi
	2.	25	26	27	28	29	30	1	
DEC	3.	2	3	4	5	6	7	8	
	4.	9	10	11	12	13	14	15	
	5.	16	17	18	19	20	21	22	
	6.	23	24	25	26	27	28	29	02- 04 Dec- Project Initiation 30 Dec-02 Jan- First Review 10-12 Feb- Second Review 09- 11 - Mar Final Review
JAN	7.	30	31	1	2	3	4	5	
	8.	6	7	8	9	10	11	12	
	9.	13	14	15	16	17	18	19	
	10.	20	21	22	23	24	25	26	26-27 Dec: Department Association Event 11-12 Jan: Yuvatarang College Youth Fest 05-06 Mar: VIEW Technical fest TECHKRITHI 2020 7 Mar Women's day 13&15 Mar- Visit to Orphanage home Akshaya event
	11.	27	28	29	30	31	1	2	
FEB	12.	3	4	5	6	7	8	9	
	13.	10	11	12	13	14	15	16	
	14.	17	18	19	20	21	22	23	
	15.	24	25	26	27	28	29	1	
MAR	16.	2	3	4	5	6	7	8	
	17.	9	10	11	12	13	14	15	
	18.	16	17	18	19	20	21	22	20 -25 Jan: II, III & IV B Tech II Semester **MID 1** examination 23 -28 Mar: II, III & IV B Tech II Semester **MID 2** examinations 30 Mar- 04 Apr II, III & IV B Tech II Semester **Project and External lab examinations** 6 -18 Apr: II, III & IV B Tech II **Semester end theory examinations**
	19.	23	24	25	26	27	28	29	
APR	20.	30	31	1	2	3	4	5	
	21.	6	7	8	9	10	11	12	
	22.	13	14	15	16	17	18	19	

Figure B.2.2.1.c: Department Calendar for the Academic Year 2019-20 Semester-II

The activities taking place every day in the department are implemented by the faculty members and monitored by the HoD and the Principal for the smooth functioning of the department.

B. Use of various instructional methods and pedagogical initiatives (3)

The Department of CSE adopts various innovative pedagogical methods along with traditional methods in content delivery keeping in view of students' limited attention span, processing the information, learning styles and motivation. The course coordinator holds meeting well in advance to the commencement of class work with all faculties handling a course to discuss the topic wise pedagogical methods to be adopted in day to day class work. For a particular topic in a course either a single or multiple number of methods are implemented depending on its difficulty.

The Outcome Based Education model is implemented in the department by blending student centric environment with the traditional teaching for effective teaching process by following various pedagogical strategies:

1. Lecture Method
2. Dynamic Classroom: Vignettes, Pictures, Schematics, Graphs and Open ended problems
3. Dissemination of Content through Course Websites: Coursesites
4. Use of Learning Management Tools: Canvas, MOOCs, Moodles, Virtual Labs
5. Inquiry Based Learning Strategies: Flipped class room, Game based learning, Reciprocal questioning
6. Collaborative Learning Activities: Jigsaw, STAD, Case study, Stump your partner
7. Seminar Method
8. Activity Learning: Think Pair Share, Think Aloud Pair problem Solving, In class teams

1. Lecture Method

The faculty use chalk, board and audio-visual aids in teaching. The faculty organizes the activities of teaching to bring a desirable change in the behavior of the student. Students are encouraged to actively interact during the lecture hour by getting the doubts clarified. Students achieve the learning objectives of the class.

Process:

Step 1: Opening

State the purpose of the lecture. Use generalized statements to capture the focused attention of the students. Use Multi-media resources and emphasize on why the lecture is important. Specify what is expected of the students to learn. Ask the students to think of other examples.

Step 2: Presentation

Organize the main body of the lecture into subheadings that are associated with the concepts to be explored. The subheadings should reflect the objectives of the lecture. Video graphics can be used to illustrate few topics.

Step 3: Learner-Instructor two-way Interaction

In order to encourage students to participate effectively in their learning in an efficient manner, the instructor's questions should be embedded in the students' notes, or available on an on-line site for the students, well in advance of the lecture. Likewise, the instructor should solicit questions from students, in advance of the lectures, that are to be addressed in class.

Step 4: Formative Assessment

The students are assessed by giving at the most, 5 multiple-choice questions to attempt in class. Then, the instructor should provide immediate feedback on those questions.The analysis of their results in real time will provide the basis for the feedback of the lecture explained in the class.

Step 5: Conclusion

The instructor draws attention to the most important concepts of the lecture by providing a summary of the main ideas and consolidating the concept in the last 5 minutes of the class.

Implementation:

This method is implemented by all faculties to the maximum number of topics in all the courses of the program. Various teaching aids like chalk and board, Power point presentations, Models etc., are used for better understanding of a concept by the student.

Figure B.2.2.1.d: Lecture Demonstration using PPT

Outcomes:

- Achieves high order cognitive objectives i.e., application, analysis, and synthesis.
- Efficient method for delivering substantial amounts of information to large numbers of student.
- Framework or overview for subsequent learning, e.g., reading assignments, small group activities, discussion.
- Offers current information (more up to date than most texts) from many sources.
- Provides a summary or synthesis of information from different sources.
- Creates interest in a subject as lecturers transmit enthusiasm about their discipline.

Impact Analysis:

- Concentration among the students has been improved.
- Student-faculty interaction is improved.
- Learning abilities of the student are understood by the faculty.

2. Dynamic classroom: Vignettes, Pictures, Schematics, Graphs and Open-ended Problems

The Dynamic Classroom is a combination environment with a careful mix of traditional teaching and personalized learning. The culture of dynamic classroom helps in understanding the typical topics with approaches like attention of the students by seeing, hearing, reflecting, reasoning logically and intuitively.

Process:

This activity is been incorporated in all the courses at least for two lectures. A sample strategy sheet for dynamic classroom activity for the HTML tags and elements of Web technologies is below:

Subject: Web Technologies **Class: IV CSE** **Topic: HTML tags and elements**

Outcome: At the end of the session, student is able to

- Demonstrate the basic HTML tags and its elements.
- Construct a web page using the html tags.

Method Adopted: Use Pictures, Schematics, and simple sketches

In order to induct the basics and need of explaining the tags in html, content based teaching is more apt to cover this topic using pictures, schematics, and simple web pages. Concrete material was provided to get clear idea about all tags like

- HTML basic tags
- Paragraph tag and its attributes
- Header tags
- List tags

Pre-Implications:

- Eagerly waited for the start of my class
- As it was new concept and closely related to real time, all students were attentive

Implementation of that strategy:

- I started the class with introducing HTML in day to day communication (10 min) -Using Sketches- *Sensing & Intuitive*
- Explained various tags available (20 min) – using Pictures and charts- *Intuitive, Inductive & Sequential.*
- Discussed the usage of tags (10 min) – Using Various sample web pages visualizing the source code - *Sensing & Visual*
- Spent 10 minutes in clarifying their doubts- *Reflective & Global*

Figure B.2.2.1.e: Strategy plan for Dynamic classroom

Sl. No	Name of the faculty	Year/Sem	Course	Activity conducted	Topic	No. of Students Participated	Relevance to POs & PSOs	Activity Outcome
1	Dr. K. Vijaya Kumar	IV-I	Cloud Computing	Vignettes	Service Models	65	PO1, PO9, PSO1, PSO2	Independent-learning of the student is improved
2	Dr. P. Vijaya Bharati	IV-I	Web Technologies	Open ended Problems	Sending mail in PHP	61	PO1, PO9, PO10 PSO1, PSO2	Students were involved in discussion actively which improved their learning
3	Mrs. M. Mamata Laxmi	II-II	Software Engineering	Writing Assignments	SDLC Life cycle	65	PO1, PO2, PO9, PO10 PSO1, PSO2	Activity provided motivational learning to students
4	Mr.I. Raju	IV-I	Big data Analytics	Models	HDFC Architecture	65	PO1, PO9, PO10, PO12 PSO1, PSO2	Grab the attention of the students for the entire session
5	Mr.R. Ravi	IV-I	SADP	Schematics	Design Patterns	60	PO1, PO2, PO9, PO10 PSO1, PSO2	Weak students actively participated in discussions
6	Ms. Y. Vineela Sraya	III-II	Computer Networks	Graphs	Protocols	63	PO1, PO2, PO9, PO10 PSO1, PSO2	Self-learning capability of the student is improved

Table B.2.2.1.a: Dynamic activities conducted by the Faculty

Outcomes:

- Engagement of students and motivation to learn using technology.
- Assistance to students in the classroom to achieve their potential.

Impact Analysis:

- Helped students to improve capabilities of learning.
- Developed personal and interpersonal skills.
- Improved the ability to think both creatively and critically.
- Improved visionary leadership within the class.

3. Dissemination of Content through Course Websites: Coursesites

The faculty members are self-motivated to create course websites to make available of the course content like syllabus, course delivery plan, lecture notes of all units and previous question papers. This facility helps the students to learn more in less time. As an educator we need to be very particular in inducting content to the learners in short span of time.

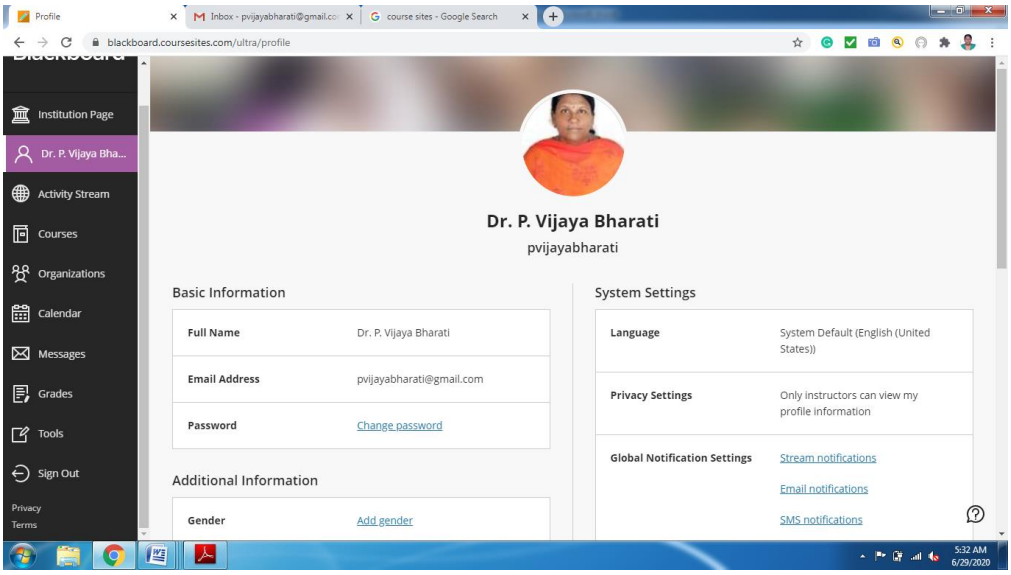


Figure B.2.2.1.f: Course website https://blackboard.coursesites.com/ultra/profile

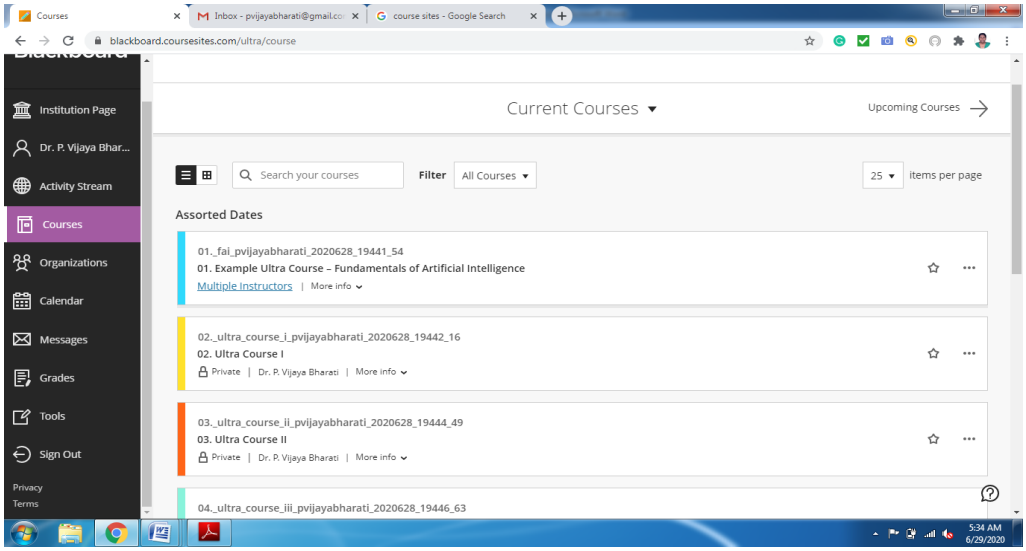


Figure B.2.2.1.g: Availability of course content in course website

The department of CSE also hosts a website https://sites.google.com/view/viewcse/in which the data related to all courses of all semesters is maintained. It has syllabus, Lecture plans, Unit materials, Assignment questions, Mid question papers after the exam, University previous question papers and also end results. All the students from department of CSE are allowed to access it.

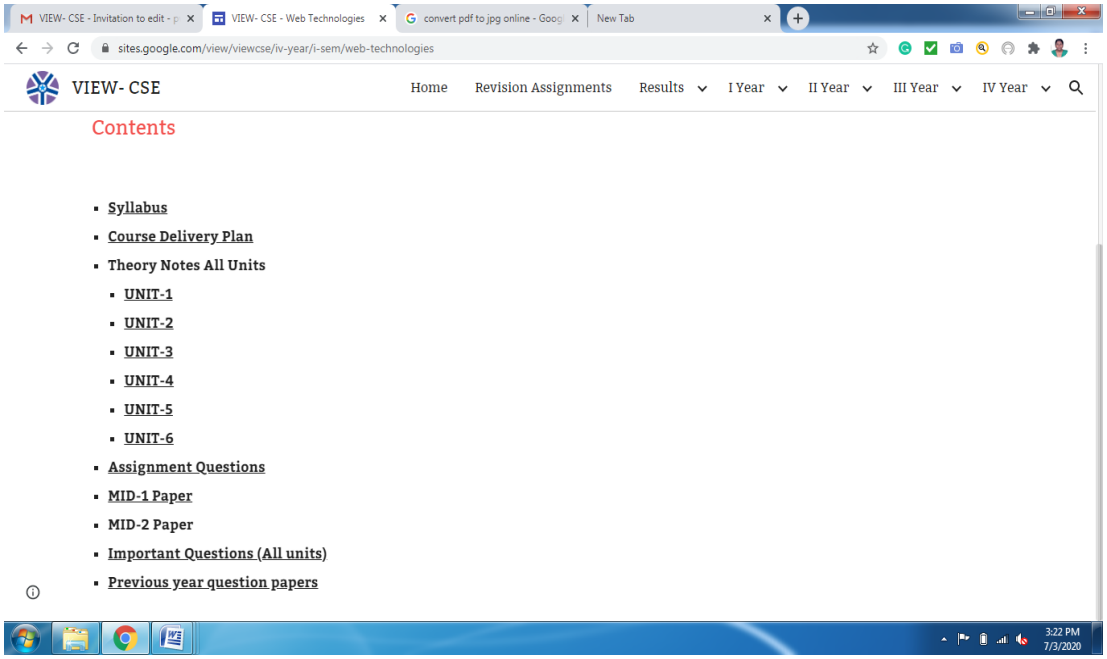


Figure B.2.2.1.h: Available course content in Department website

Implementation:

Sl. No.	Name of the faculty	Year/ Sem	Course Name	Platform	Utility
1	Dr. A. Sesha Rao	II-I	Computer Organization	Coursesites	Course Syllabus, Lesson Plan, Lecture material for all the units
2	Dr. K. Vijaya Kumar	IV-II	Machine Learning	Coursesites	Course Syllabus, Lesson Plan, Lecture material for all the units
3	Mr. S. Ramprasad Reddy	II-I	Statistics with R Programming	Canvas	Assignments
4	Mrs. R. Pravallika	IV-I	Cryptography and Network Security	Google Classroom	Lecture material for all the units, Video lectures
5	Mr. I. Raju	II-II	Java Programming	Google Classroom	Assignments, Video Lectures
6	Ms. K. Deepthi Krishna	III-I	Compiler Design	Google Classroom	Lecture material for all the units, Video lectures

Table B.2.2.1.b: Faculty using various Course websites

Outcomes:

- Flexibility to learn one's own pace.
- Encourages self-study.
- Improves lifelong learning experience.

4. Use of Learning Management Tools: Canvas, MOOCs, Moodles, Virtual Labs

The department of CSE uses LMS tools such as Canvas, MOOCs, Moodles, Virtual Labs etc., to make the students submit their assignments, learn online and implement the experiments to gain knowledge about the concepts learnt in the class. Google Classroom, Webex, Zoom, Microsoft Teams etc. have been utilized by the faculty to teach the courses through online.

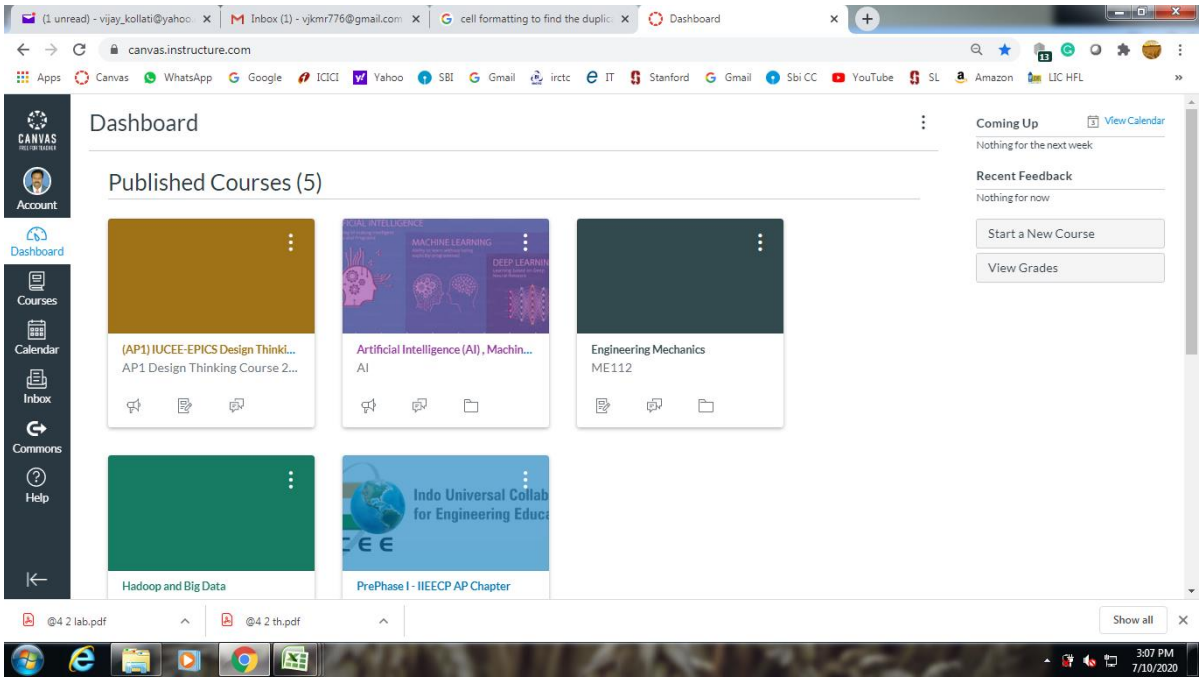


Figure B.2.2.1.i: Content delivery using canvas LMS tool

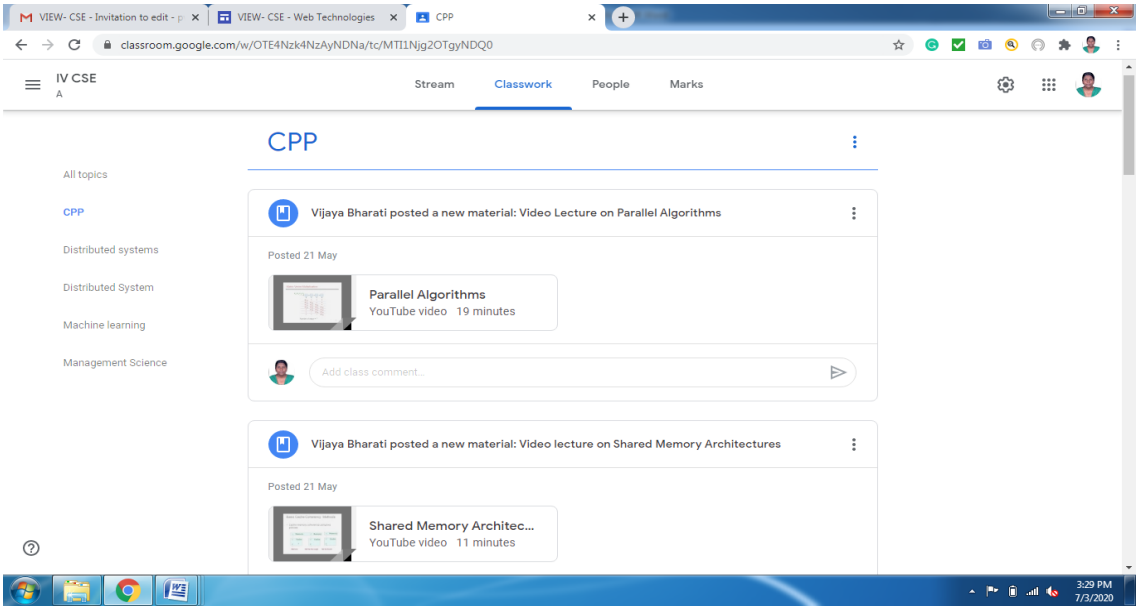


Figure B.2.2.1.j: Content delivery using Google classroom

Sl. No.	Name of the Faculty	Course Name	Units Covered	LMS Tool	Mode of Conduction	No. of Students Participated	Relevance to POs & PSOs
1	Dr. K. Vijaya Kumar	Machine Learning	VI	CISCO Webex, Google Classroom	Online Class and Video Lectures	140	PO1-PO5 PSO1, PSO2
2	Dr. P. Vijaya Bharati	Concurrent and Parallel Programming	V, VI	GoTo Meeting, Google Classroom	Online Class and Video Lectures	170	PO1-PO5 PSO1, PSO2
3	Mrs. M. Mamatha Laxmi	Software Engineering	V, VI	Zoom, Google Classroom	Online Class	150	PO1-PO5 PSO1, PSO2
4	Mr. I. Raju	Java Programming	II, III	Zoom, Google Classroom	Online Class and Video Lectures	163	PO1-PO5 PSO1, PSO2
5	Ms.Y.Vineela Sravya	Computer Networks	V	GoTo Meeting, Google Classroom	Online Class and Video Lectures	124	PO1-PO5 PSO1, PSO2
6	Mrs. R. Pravallika	Computer Organization	VI	Zoom, Google Classroom	Online Class and Video Lectures	156	PO1-PO5 PSO1, PSO2
7	Mrs. G. Sandhya	Advanced Data Structures	III, IV	Zoom, Google Classroom	Online Class and Video Lectures	140	PO1-PO5 PSO1, PSO2
8	Mrs. G. Pavani Latha	Artificial Intelligence	V	Google Classroom	Video Lectures	125	PO1-PO5 PSO1, PSO2
9	Mrs. N. Sowjanya Kumari	DWDM	VI	Zoom	Online Class	160	PO1-PO5 PSO1, PSO2

10	Mr. R. Ravi	DDS	VI	GoTo Meeting, Google Classroom	Online Class and Video Lectures	184	PO1-PO5 PSO1, PSO2
11	Mr. D. Rajendra Dev	OOAD	IV, V	Screen Recorder, Google Classroom	Online Class	132	PO1-PO5 PSO1,PSO2
12	Ms. Rita Roy	PPL	VI	Screen Recorder, Google Classroom	Online Class and Video Lectures	145	PO1-PO5 PSO1, PSO2
13	Mrs. J. Hima Bindu	FCS	IV, V, VI	Zoom	Online Class	180	PO1-PO5 PSO1, PSO2
14	Mrs.Sk. Rahimunnisa	FLAT	V, VI	Zoom, Google Classroom	Online Class and Video Lectures	146	PO1-PO5 PSO1, PSO2
15	Ms. B. Haritha Lakshmi	Java Programming	V, VI	Google Classroom	Video Lectures	123	PO1-PO5 PSO1, PSO2

Table B.2.2.1.c: Faculty using various LMS tools

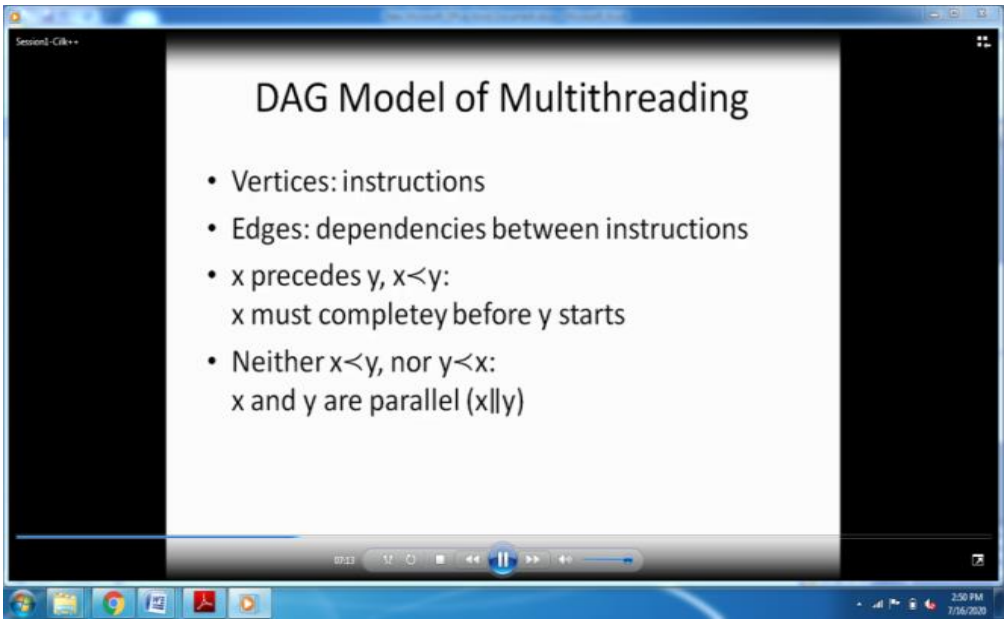


Figure B.2.2.1.k (a): Video Lectures and Online Classes

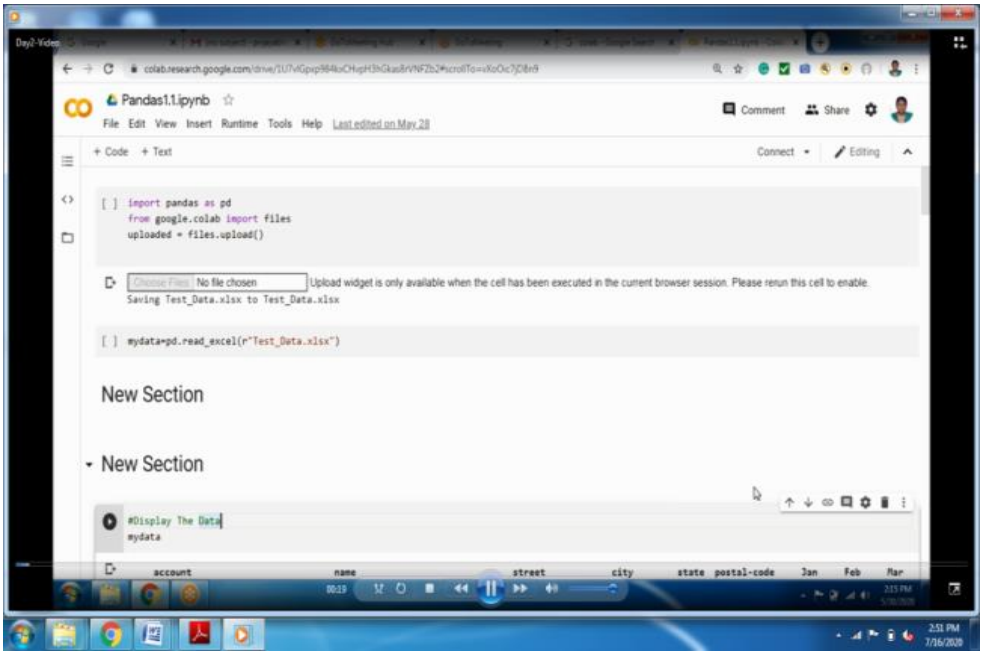


Figure B.2.2.1.k (b): Video Lectures and Online Classes

Outcomes:

- Solve problems by applying ICT method.
- Access video lectures at any time.
- Study individually.
- Enhance the interest of the students.

Impact Analysis:

- Students' improved their lifelong learning skills.
- Students enhanced their self-learning skills

5. Inquiry Based Learning Strategies: Flipped classroom, Game based learning, reciprocal questioning

Inquiry-based learning is an approach to learning that emphasizes the student's role in the learning process. Rather than the teacher telling students what they need to know, students are encouraged to explore the material, ask questions, and share ideas. Confirmation enquiry, structure enquiry, guided enquiry and open enquiry are different inquired based strategies adopted in the department to make classroom more students centric.

Flipped Classroom

The flipped classroom is a teaching method which allows teachers to involve students actively in the classroom. Teachers provide recorded video tutorials to the students as homework and use class time for solving the problems and exercises. Flipped classrooms help two-way communications between teacher and student. It improves interpersonal and intrapersonal skills of the students.

Process:

The steps of flipped classroom are:

- Students are assigned with reading or video lectures of the content to learn outside the classroom as a home assignment.
- Classroom is used to discuss the exercise problems and solve them with some activities like quiz, group discussions and mini projects.
- Students go back to home and solve some more assignments and prepare for next topic assigned by the teacher.

Implementation of Flipped classroom:

Course Name: Concurrent and Parallel Programming

Topic: Parallel Sorting Algorithms

Outside the classroom: Students are assigned with parallel sorting algorithms video lecture.

Learning Objective: Students should be able understand different parallel sorting algorithms

Class room activity: Solve different parallel sorting algorithms with examples and compare time complexity between these algorithms.

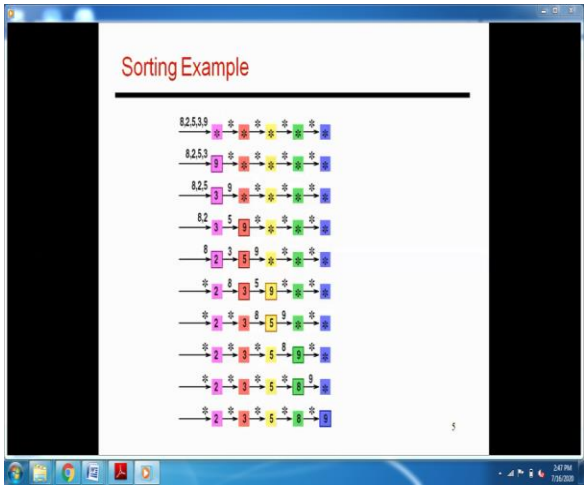


Figure B.2.2.1.l: Video Lecture and Flipped Classroom

Sl.No	Regd. No	Name of the student	Pre-Class Activity (5M)	In-Class Activity (20 M)	Post-Class Activity (5M)	Total (30M)	Improvement in Mark
1	18NM1A0561	Kandregula Kusumanjali	5	20	5	30	0
2	18NM1A0562	Kandregula Parimala	4	19	5	28	1
3	18NM1A0563	Karaka Mounika	4	18	5	27	1
4	18NM1A0564	Karanam Vahini Priya	2	11	3	16	1
5	18NM1A0565	Karri Divya Sai	2	11	4	17	2
6	18NM1A0566	Karri Usha	4	20	5	29	1
7	18NM1A0567	Kavali Sri Varshini	3	15	4	22	1
8	18NM1A0568	Kodi Mounika	4	19	5	28	1
9	18NM1A0569	Kolachina Vagdevi	4	19	5	28	1
10	18NM1A0570	Kolli Amrutha	5	20	5	30	0
11	18NM1A0571	Kolli Mercy	4	17	4	25	0
12	18NM1A0572	Kommanapalli Jyothsna	4	19	5	28	1
13	18NM1A0573	Konathala Laharika	5	20	5	30	0
14	18NM1A0574	Koorapati Sireesha	4	19	4	27	0
15	18NM1A0575	Koribilli Moulika Sandhya Sri	5	20	5	30	0
16	18NM1A0576	Kosetti Hema Latha	3	15	3	21	0
17	18NM1A0577	Kotana Mounika	3	19	5	27	2
18	18NM1A0578	Kottana Varshini	5	20	5	30	0
19	18NM1A0579	Kshatriya Dimpul Singh	3	18	5	26	2
20	18NM1A0580	Kundrapu Dharani Sai Keerthi	3	17	5	25	2

Table B.2.2.1.d: Sample assessment sheet for Inquiry based activity

Sl.No	Name of the faculty	Year/Sem	Course	Topic	No. of Students Participated	Relevance to POs & PSOs
1	Mrs. Sk. Rahimunnisa	II-II	Formal Languages and Automata Theory	DFA and NFA	63	PO1-PO5 PSO1, PSO2
2	Mrs. R. Pravallika	IV-I	Cryptography and network Security	Email Security	61	PO1-PO5 PSO1, PSO2
3	Mrs.G. Sandhya	II-II	Advanced Data Structures	AVL Trees	65	PO1-PO5 PSO1, PSO2
4	Mrs. G. Pavani Latha	III-II	Artificial Intelligence	Fuzzy Logic	63	PO1-PO5 PSO1, PSO2
5	Mr.D. Rajendra Dev	III-I	Software Testing Methodologies	Design Patterns	60	PO1-PO5 PSO1, PSO2
6	Mrs. N. Sowjanya Kumari	III-I	OOAD	Class Diagram	63	PO1-PO5 PSO1, PSO2
7	Ms. Rita Roy	II-I	Computer Graphics	Circle Drawing Algorithm	64	PO1-PO5 PSO1, PSO2

Table B.2.2.1.e: Faculty implementing Flipped Classroom

Outcomes:

- Utilization of time efficiently.
- Achieve active learning.
- Involve students in learning.
- Enhance in learning.

Impact Analysis:

- Improvement in student learning before and after activity which is clear from Table: B.2.2.1.d.

6. Collaborative Learning Activities: Jigsaw, STAD, Case study, Stump your partner

Collaborative learning involves implementing projects, writing reports, debates, group discussion and other activities. Collaborative learning can be conducted in the class by using different types of methodologies like Stump your partner, Student Teams Achievements Division (STAD), Jigsaw, Teams Games Tournaments (TGT), etc,.

Figure B.2.2.1.m: Collaborative class room

JIGSAW Method

Process:

The jigsaw technique is a method of organizing classroom activity that makes students dependent on each other to succeed. It breaks classes into groups and breaks assignments into pieces that the group assembles to complete the (jigsaw) puzzle. Working individually, each student learns about her topic and presents it to their group. Next, students gather into groups divided by topic. Each member presents again to the topic group. In same-topic groups, students reconcile points of view and synthesize information. They create a final report. Finally, the original groups reconvene and listen to presentations from each member. The final presentations provide all group members with an understanding of their own material, as well as the findings that have emerged from topic-specific group discussion.

Implementation of Activity:

Course	: Computer Architecture and Organization
Class	: II CSE, II SEM
Topic	: Von Neumann Architecture
Activity Chosen	: JIGSAW

This is an example of implementation carried out with 60 students on Computer Architecture & Organization course. The teams were formed with size of 5 members in each time and hence, a total of 12 teams were formed. Care is taken to match the group size to the assigned subtasks. At the end of the collaborative learning, students were graded individually and group wise. Students are divided into heterogeneous home groups and subsequently regrouped into 10 homogeneous groups known as Expert groups.

The 12 groups are identified with scientist's names like Albert Einstein, Isaac Newton, Stephen Hawking, Niels Bohr and etc. In each team, the group members are identified as A1, A2, A3, A4, A5, B1, B2, B3, B4, B5, etc. The Strong Global Learners of each group A1, B1, C1, D1, etc, is appointed as group leaders. The Table B.2.2.1f shows the index of learning styles score and the member ID of individual student.

Concept for activity:

Von Neumann Model*:* Functioning of I/O devices, Memory unit, Processing unit & Control unit.

The Instruction execution is sub divided into 6 segments.

i) Functioning of Accumulator, CPU registers and General purpose registers.

ii) Fetch instruction

iii) Decode instruction

iv) Fetch Operands

v) Execute instruction

vi) Store result

Sl. No.	Regd. No	Name of the Student	Active	Reflective	Sensing	Intuitive	Visual	Verbal	Sequential	Global	Member ID
1	16NM1A0501	A Unnisa	1		1			1	5		A2
2	16NM1A0502	Aishwarya Gantayath	1		3		3			5	A1
3	16NM1A0503	Ampolu Soundarya	7		7		7			5	B1
4	16NM1A0504	A Sai Vaishnavi	5		3		11			3	K1
5	16NM1A0505	A Sowmya Sri	1		1			1	5		B2
6	16NM1A0506	Anjali Sowgandhi Piridi	5		3		3		1		A4
7	16NM1A0507	Appikonda Leelaveni	5			3	3			1	B4
8	16NM1A0508	Appikonda Surya Sai Supriya	1		1		7		1		A3
9	16NM1A0509	Asuri Sukanya	5			3	3			3	L1
10	16NM1A0510	Atta Lavanya		3		1	3		1		A5
11	16NM1A0511	Balaka Harika	7		9		9		9		C2
12	16NM1A0512	Baliboyna Niharika	5		5			1		1	C4
13	16NM1A0513	B Soniya Shyne	5		5		5		5		D2
14	16NM1A0514	B Saritha	7		7		5		1		B3
15	16NM1A0515	B Roshini devi	7			3	3			1	D4

16	16NM1A0516	Basheerunnisa Begum		3		1	3			3	B5
17	16NM1A0517	BeelaYajnashireesha	1			3		3	3		C5
18	16NM1A0518	BeraMamala Sridevi		1		1	5		3		C3
19	16NM1A0519	Bhairi Surya Teja		1		1	9		3		D3
20	16NM1A0520	Bondhi Anjali		1		1	9		3		E3
21	16NM1A0521	BonuguSushmitha		1	7		1		1		D5
22	16NM1A0522	BorigiBhanusree	5		1		9			5	C1
23	16NM1A0523	Chakka Swapna		3	1		7		3		F3
24	16NM1A0524	Chinta Sri Lalitha Navya Bharathi	3			1	9		3		G7
25	16NM1A0525	ChintalapudiDeekshitha	3			1	3			1	E5
26	16NM1A0526	ChittuluriAlekya	3		1		5			3	H3
27	16NM1A0527	Chukka Ramya	1		1			1	5		E2
28	16NM1A0528	Dadi Jyothsna	3		1		7			1	I3
29	16NM1A0529	Damuluri Anusha	1		1			1	5		F2
30	16NM1A0530	Dasari Vandana Sri		1	1		1		3		F5
31	16NM1A0531	Devupalli		3		3	9			3	J3

		Sirisha									
32	16NM1A0533	Dunna Yamuna	1		3		9		9		G5
33	16NM1A0534	Duvvada Vandana	9			3	7			7	D1
34	16NM1A0535	Ejji Deepika		1		11		5		9	E1
35	16NM1A0536	Gandi Mounika		1		1	5		3		K3
36	16NM1A0537	Gandikota Krishna Kumar Sowmya		1	5		9		5		H2
37	16NM1A0538	Gannu Rupa SanthiSree	3			3	1			1	H5
38	16NM1A0539	Ghattamaneni Praharsha	5		3		3		1		E4
39	16NM1A0541	Gowripattapu Anusha		3	5		11			1	L3
40	16NM1A0542	Gujjari Priyanka		3		5	5			5	F1
41	16NM1A0543	Gunda Mounika		7	3		7			1	I5
42	16NM1A0544	Gunisetty Naga Sai Lalitya	3		1		9			1	J5
43	16NM1A0545	G Devi	5		1		9		3		F4
44	16NM1A0546	G Lakshmi Tulasi	1			1	5			1	K5
45	16NM1A0547	I Bhagya Lakshmi	3			1	3		1		L5
46	16NM1A0548	J Swetha	1		1			1	5		I2
47	16NM1A0549	J Divya	1		3			9	1		J4

48	16NM1A0550	J Poornima		1	3		5			5	G9
49	16NM1A0551	Kakara Padmavathi	1		3		3			5	H1
50	16NM1A0552	Kandregula Bhagya Sri	5		3			3	1		G4
51	16NM1A0553	K Sai Praneetha	1			5	1		1		G5
52	16NM1A0554	Karanam Mary Prathyusha	1		3		3			5	I1
53	16NM1A0555	Kusha	5			1	3		7		J2
54	16NM1A0556	K Chinni	5		5			3		1	H4
55	16NM1A0557	Kodukula Amrutha Sarvani	5			3	7		1		I4
56	16NM1A0558	Koduru Santoshi		1		1	7		1		K4
57	16NM1A0559	Kolluru Sai Sadhana	1		3		3			5	J1
58	16NM1A0560	K Chaturya		1		5	11		5		K2
59	16NM1A0561	Konathala Yogitha	3			1	7		5		L2
60	16NM1A0562	K Sri Lakshmi Prasanna	5		1		5			3	L4

Table B.2.2.1.f: Index of Learning Styles for Students

Sl. No	Name of the faculty	Year/Sem	Course	Topic	No. of Students Participated	Relevance to POs& PSOs
1	Dr. A. Sesha Rao	II-II	Computer Organization	Von Neumann Architecture	60	PO1-PO5 PSO1, PSO2
2	Dr. K.Vijaya Kumar	IV-I	Cloud Computing	Types of Virtualization	60	PO1-PO5 PSO1, PSO2
3	Dr. P. Vijaya Bharati	IV-II	Concurrent and Parallel Programming	C++AMP	61	PO1-PO5 PSO1, PSO2
4	Mrs. M. Mamatha Laxmi	II-II	Software Engineering	Agile Development Model	62	PO1-PO5 PSO1, PSO2
5	Mr. I. Raju	IV-I	Big Data Analytics	Commands in Pig	61	PO1-PO5 PSO1, PSO2
6	Mr. R. Ravi	III-I	SADP	Architectural Styles	61	PO1-PO5 PSO1, PSO2
7	Ms. B. Haritha Lakshmi	II-II	Java Programming	Buzz Words	60	PO1-PO5 PSO1, PSO2

Table B.2.2.1.g: Faculty implementing JIGSAW Method

Figure B.2.2.1.n: An example of implementation of JIGSAW method in Classroom

Impact Analysis:

- Engage students in the class, instead of teacher presenting to them, which fosters depth of understanding.
- Practice self-teaching, which is one of the most valuable skills we can help them learn.
- Practice peer teaching, which requires them to understand the material at a deeper level than students typically do when simply asked to produce on an exam.
- Speak the language of the discipline and were more fluent in the use of discipline-based terminology.
- Develop an expertise skill and the student contributes something important to the group.
- Contribute meaningfully to a discussion that is more difficult to achieve in large-group discussion.

7. Seminar Method

Through Seminars students are encouraged to innovate and come up with new ideas exploring new technologies. There are also, few topics chosen in few Courses and given as seminars which encourage them for self-learning. And also there is a course seminar in II-I and III-I for R13 regulation and in IV-II in R16 regulation. Each student chooses a separate seminar topic which is mandatory for evaluation in the course. Student seminars are attended by the faculty for giving a critical assessment.

Figure B.2.2.1.o: Student presenting a Seminar

Figure B.2.2.1.p: Student raising a question on the discussed topic

Sl. No	Regd. No.	Year/Sem	Course Name	Title of the Seminar Topic	Relevance to POs& PSOs
1	16NM1A0501	IV/II	Concurrent and Parallel Programming	OpenMP	PO1-PO5, PO10, PO12 PSO1
2	16NM1A0522	IV/II	Concurrent and Parallel Programming	OpenCL	PO1-PO5, PO10, PO12 PSO1
3	16NM1A0533	IV/II	Concurrent and Parallel Programming	Cilk++	PO1-PO5, PO10, PO12 PSO1
4	16NM1A0535	IV/II	Concurrent and Parallel Programming	Intel TBB	PO1-PO5, PO10, PO12 PSO1
5	16NM1A0544	IV/II	Concurrent and Parallel Programming	CUDA	PO1-PO5, PO10, PO12 PSO1
6	16NM1A0566	IV/II	Concurrent and Parallel Programming	C++ AMP	PO1-PO5, PO10, PO12 PSO1
7	16NM1A0578	IV/II	Concurrent and Parallel Programming	Cilk++	PO1-PO5, PO10, PO12 PSO1
8	16NM1A0588	IV/II	Concurrent and Parallel Programming	OpenCL	PO1-PO5, PO10, PO12 PSO1
9	16NM1A0592	IV/II	Concurrent and Parallel Programming	Intel TBB	PO1-PO5, PO10, PO12 PSO1
10	16NM1A0599	IV/II	Concurrent and Parallel Programming	CUDA	PO1-PO5, PO10, PO12 PSO1

Table B.2.2.1.h: Student Seminar Topics for Course CPP

Impact Analysis:

- Increase in problem-solving skills of the student by participation.
- Promote self-learning and independent thinking.
- Improve the communication skills.
- Develop the scope for active participation

Outcomes:

- Seminars made the students innovative, interactive, and motivated to study and analyze their topic in detail.

8. Activity Learning: Think Pair Share, Think Aloud Pair Problem Solving, In-class Teams

Active learning is anything course-related that all students in a class session are required to do, other than simply watching, listening and taking notes. It shifts focus from what the instructor should deliver to what the students should be able to do and motivates students to be prepared for class, having assimilated material and being ready to use it.

Activity: Think-Pair-Share

Think-pair-share (TPS) is a combined knowledge scheme where a teacher initiates a problem and students pair with each other to solve it and share their insights to the class.

Process:

This scheme uses three steps for active learning in class.

1. The teacher presents a problem or a question and students think individually.
2. A student is paired with another student or a small group and they interact with each other and engage in solving the problem.
3. The teacher asks the students to share their thoughts about the solution to the problem.

Implementation Scenario of TPS activity:

Students were given a problem in java programming.

Learning outcome*:* Student should be able to write the program in java for a given task.

Problem statement: Recall the string methods to apply on sorting names and search for a given name using binary search.

Think: Individually write pseudo-code for sorting and searching.

Share: Teacher collects the solutions from the students and summarizes one solution for the given problem.

Outcomes:

- Increase the degree of student participation in the class.
- Encourage students to share their thoughts with at least one other student and allow them to involve more in classroom activities.
- Interaction of students in pairs and answer to each other accordingly.
- Involve students actively in the class.
- Develop in-depth knowledge of the topic.
- Develop communication skills among the students.
- Help students to ask questions which they normally do not ask individually.

Impact Analysis:

- Improves individual thinking
- Enhances communication skills
- Improves leadership qualities

C. Methodologies to support weak students and encourage bright students (4)

Guidelines to identify weak and bright students

The bright students are identified from their participation in classroom discussion, performance in the assessment tests and participation in classroom seminars, questioning ability and University result analysis. The Counselors regularly conduct meetings regarding progress of their mentees and are responsible to identify students who scored less than 60% marks in their internals. Under the HOD direction, the students Counselors evaluates the progress of the students who score below 60% marks in three or more subjects in MID examinations are considered as weak students and same is also intimated to their parents. The department of CSE conducts remedial classes along with these weak students also supports the students with

backlogs by conducting remedial classes during semester break. The faculty helps the students by teaching the essential concepts, giving assignments and conducting tests to improve the student.

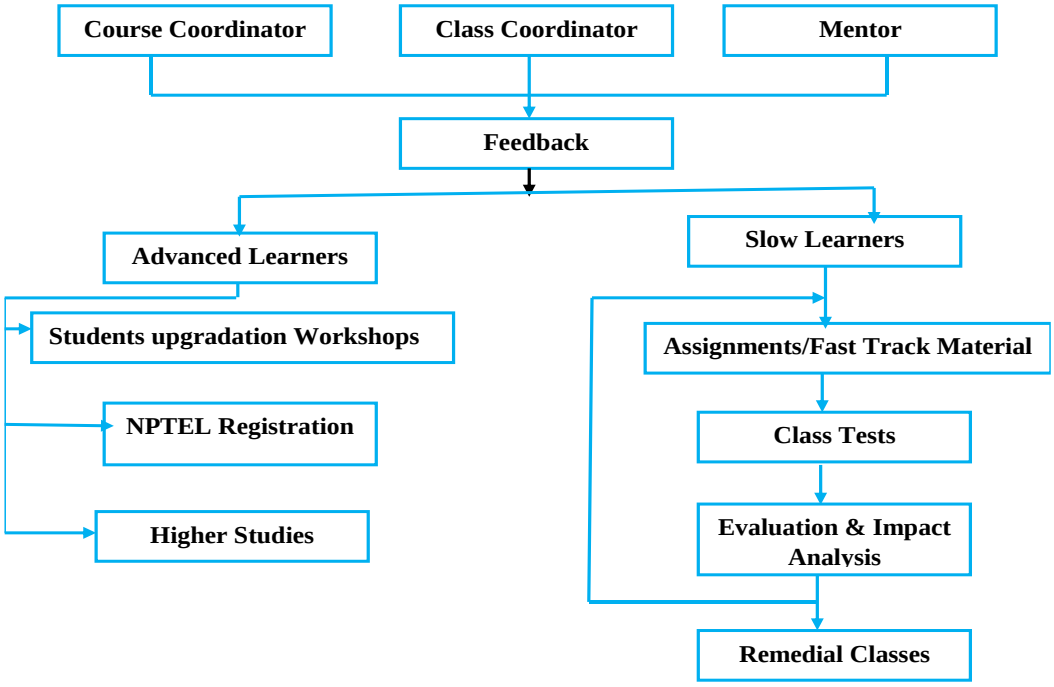


Figure B.2.2.1.q: Process to identify slow &bright students

Methodologies to support weak students

- The Faculty Counselor identifies the slow learners after every mid exam and external exams. The department appoints one faculty for every 20 students entering from second year onwards.
- This faculty counselor establishes a close relationship with each student and orients them to college practices, monitors their daily progress regularly (e.g., with at least fortnightly/monthly meetings) and guides them throughout the four-year course.

- The Faculty Counselor gives academic as well as personal advice. Sometimes, she may not necessarily be able to address all problems – but faculty plays a role in guiding the student, putting the student in touch with the appropriate assistance, and so on.
- The faculty counselor counsels and advices the slow learners to enhance the academic performance.
- Remedial classes will be conducted for slow learners after the college hours i.e., 3:00 P.M. to 5:00 P.M.
- Separate Assignments are given to slow learners and extra classes are conducted by faculty.
- Separate materials are provided to slow learners.
- Institute supports for socio economic problems.

Identification Criteria	Actions taken
Students scoring less than 60% of marks in Internal Assessment.	• Student counselor follows their progress regularly advising students about attending classes, making up classes missed, and getting additional help. • Conduction of remedial classes • Providing separate fast track material
Diploma students who entered from other branches and late joining	• Conduction of remedial classes and extra classes
Students who fail in semester exams	• Allotting separate faculty for each subject • Conduction of extra classes to those who failed in previous semester subjects.

The remedial class timetable is prepared and the faculties are instructed to take the classes. Monitoring of the student regularity is done by the faculty in-charge. A sample remedial class timetable for Python Programming is below:

Subject Name: Python Programming **Faculty Name**: Dr. P. Vijaya Bharati

Period: 05-02-20 & 06-02-20 **Time:** 4.00-6.00PM **Total Duration**: 2hr

Sl. No.	Reg. No.	Name of the Student	Signature
1	17NM1A0523	B. Lalitha Ananta Kiranmai	
2	17NM1A0560	J. Geetha Krishna Satya Sree Sowmya	
3	17NN1A05B5	V. Manisha	
4	17NM1A05F0	S. Namratha	
5	17NM1A0593	L. Trisha	
6	18NM5A0517	S. Nirmala	

Faculty in-Charge **Head of the department**

Figure B.2.2.1.r: Remedial class schedule for Python Programming

Impact Analysis:

- Improvement in academic performance of students.
- Active participation of the students in various programs.

Methodologies to encourage Bright students

- Institute encourages the bright students to participate in the National Level Technical Competitions organized by other Institutes and Universities.
- Merit students are motivated to do NPTEL Courses and management encourages with cash awards.
- Students are encouraged to publish their scientific articles in the department level/college level newsletter and Institute organizes events such as Technical Paper presentation, Student Symposium, Seminar, Project Exhibitions, Software development competitions and Problem solving competitions to develop and promote creativity and critical thinking among the students.
- Students are involved in organizing Workshops, Seminars, Student Technical fest (Yuvatarang and Techfest) and FDPs so that they get awareness about the importance of such activities in the college.
- College students are involved in campus recruitment drives, Independence Day celebrations extra and Anchoring in technical fests.

- The department insists and encourages students to bring out Technical Articles / Papers at the end of final year project so that they are exposed to Technical Paper writing skills, peer reviews, plagiarism and research ethics.
- The students are actively participated in Unnat Bharath Abhiyan (UBA) and NSS Activities.
- Extra times in labs are given to advanced learners so that they can access maximum number of journals.
- Advanced learners are encouraged to involve in faculty projects.
- They are allocated as mentors for slow learners.
- Students are paid with incentives and stipend.

Identification Criteria	Actions taken
Students awarded with First Class and with Distinction in their semester exams	• Motivated to take up mini projects or involved in faculty projects. • Encouraged to participate in inter college national level fests. • Motivated to take GATE, GRE and TOEFL exams to pursue higher studies. • Encouraged to do NPTEL courses, etc. • The management awarded cash prizes for students those who completed NPTEL courses like Machine Learning, IoT, Cloud Computing, Big data and Artificial Intelligence. • Additional lab programs were given to improve their problem-solving skills. • Conducting seminars on advanced electronic tools required for industry • Allotment of extra library books • Permitted to access journals in the library for research purpose • Permitted to spend extra time in the project Lab
Top one student of each class for every academic year	Awarded with mementos and cash prizes to continue their Excellency in academics
Students securing ranks at University level	Distribution of Gold medals

.

The institute offers full fee waiver for merit students including fee reimbursement. The details for last three academic years are given below:

A.Y	Year	Rank in college	Branch	Regd. No.	Name of the Student	%	Cash Prize in Rs.
2018-19	I B.Tech.	1	CSE	18NM1A0519	Ms. B. Kusuma Sandhya Rani	9.56	8000
	II B.Tech.	1	CSE	17NM1A0504	Ms. A.Manasa	8.64	9000
	III B.Tech.	1	CSE	16NM1A05C0	Ms. V.Pratyusha	8.79	10000
	IV B.Tech.	1	CSE	15NM1A0559	Ms. K. Madhavi	85.07	10000
2017-18	I B.Tech.	1	CSE	17NM1A0582	Ms. K. Lalitha	84.58	7500
	II B.Tech.	1	CSE	16NM1A0569	Ms. M. Sindhu	84.32	10000
	III B.Tech.	1	CSE	15NM1A0559	Ms. K. Madhavi	84.00	9000
	IV B.Tech.	1	CSE	15NM5A0503	Ms. C. Mounika	85.93	10000
2016-17	I B.Tech.	1	CSE	16NM1A0569	Ms. M. Sindhu	96.3	10,000
	II B.Tech.	2	CSE	15NM1A0559	Ms. K. Madhavi	89.87	7,500
	III B.Tech.	2	CSE	14NM1A0556	Ms. K. Revathi	85.39	7,500
	IV B.Tech.	2	CSE	13NM1A0564	Ms. K. Jhansi	83.69	7,500

Table B.2.2.1.i: Details of Merit Students with Cash Prizes

Microsoft WISE Program: This is an idea originated from a group of women engineers working at Microsoft India who wanted to help women engineering students shape out successful careers in technology. The students who were selected for this internship program are listed below and they are also selected with high packages and details furnished below in Table: B.2.2.1.j**.**

Sl. No.	Reg. No.	Student Name	Company Selected	Package
1	16NM1A0512	Ms. B. Niharika	Amazon	19 Lakhs
2	15NM1A0559	Ms. B. Madhavi	Amazon	18 Lakhs
3	14NM5A0510	Ms. P. Mounica	Juspay	12 Lakhs
4	13NM1A0521	Ms. B. Jagruti	Microsoft	10 Lakhs
5	13NM1A0516	Ms. B. Priya Bhargavi	Microsoft	10 Lakhs

Table B.2.2.1.j: Details of few merit students selected for Microsoft WISE and got placements with high packages

Figure B.2.2.1.s: Students at Microsoft - Hyderabad

The Table.B.2.2.1.k gives the details of merit students participated in various certification and NPTEL courses.

Sl. No.	Name of the Course	No. of Students Participated	Dates of Participation	Relevance to POs and PSOs
1	Blockchain	2	2/1/2018 to 4/1/2018	PO5, PO6, PO9, PO12
2	Web Development using Python	16	19/8/2019 to 26/8/2019	PO5, PO6, PO9, PO12
3	Cloud computing with Amazon web services	4	13/8/2018 to 14/8/2018	PO5, PO6, PO9, PO12
4	Robokart	2	21/2/2018 to 22/2/2018	PO5, PO6, PO9, PO12
5	Ethical Hacking	4	5/1/2019 to 6/1/2019	PO5, PO6, PO9, PO12
6	Web & Mobile Development	5	20/12/2018 to 24/12/2018	PO5, PO6, PO9, PO12
7	Android Development	4	28/5/2019 to 5/6/2019	PO5, PO6, PO9, PO12

8	Java Programming (NPTEL)	10	10/01/2020 To 24/04/2020	PO5, PO6, PO9, PO12
9	Artificial Intelligence (NPTEL)	13	13/01/2020 to 27/04/2020	PO5, PO6, PO9, PO12
10	Computer Networks (NPTEL)	10	10/01/2020 to 24/04/2020	PO5, PO6, PO9, PO12
11	Introduction to artificial intelligence (NPTEL)	14	27/1/2020 To 22/5/2020	PO5, PO6, PO9, PO12
12	Introduction to Cloud Computing (NPTEL)	10	24/1/2020 to 22/5/2020	PO5, PO6, PO9, PO12
13	Introduction to IOT (NPTEL)	11	27/1/2020 to 22/5/2020	PO5, PO6, PO9, PO12
14	Data Structures and algorithms using python (NPTEL)	12	27/01/2020 to 20/3/2020	PO5, PO6, PO9, PO12
15	Artificial Intelligence: Knowledge Representation And Reasoning (NPTEL)	10	24/1/2020 to 27/4/2020	PO5, PO6, PO9, PO12
16	Introduction to Machine Learning (NPTEL)	11	24/1/2020 to 27/4/2020	PO5, PO6, PO9, PO12
17	Data Science with Python (NPTEL)	13	24/1/2020 To 27/4/2020	PO5, PO6, PO9, PO12
18	Data camp - python	12	2/1/2020 to 27/4/2020	PO5, PO6, PO9, PO12
19	Python (NPTEL)	12	2/1/2020 to 27/4/2020	PO5, PO6, PO9, PO12
20	Data science for beginners (NPTEL)	20	24/1/2020 to 28/4/2020	PO5, PO6, PO9, PO12
21	Java Programming (NPTEL)	10	24/1/2020 to 28/4/2020	PO5, PO6, PO9, PO12
22	Introduction to machine learning (NPTEL)	12	27/1/2020 to 30/4/2020	PO5, PO6, PO9, PO12

Table B.2.2.1.k: Details of Students participation in various Certification Courses

Figure B.2.2.1.t: Students achievements in various technical events

Figure B.2.2.1.u: A Sample NPTEL certificate of Student

Impact Analysis:

- Participation in Technical Events
- Participation in Conferences
- Participation in NSS programs
- Taking up the real time projects

- Undergoing various certification courses
- Active participation in workshops
- Active participation in inter and intra college events

D. Quality of classroom teaching (3)

(Observation in a class)

Vignan's Institute of Engineering for Women is very particular in maintaining quality of teaching in the classroom. Every faculty in our institute is trained to deliver the content in the classroom by adopting following procedures.

Step 1: Create an outline:

- ✓ What is the main goal for the lecture?
- ✓ Create 3-5 objectives for the lecture: These will describe how the teacher help the learner reach the goal
- ✓ Create an outline for the key concepts required to understand these objectives
- ✓ Create a timeline for the session

Step 2: Create a timeline:

As per our time table every class session is for 50 minutes.

Time	Activity
5 mins	Revision of previous class content
5 mins	Formative Assessment (2-3 questions on previous class)
15 mins	Delivery of new content / slides
5 mins	Interactive questions
15 mins	Continuation of the content / slides
5 mins	Review / Questions / Summary of the sessions
50 mins	**End promptly**

Step 3: Slides preparation:

- ✓ For a 50 minutes lecture, plan no more than 20 slides
- ✓ PPT will contain the following slides
  - Provide an outline slide
  - Use short phrases
  - More graphics, less text
  - Move tables and dense text to a separate handout

Step 4: Be confident

- ✓ Talk to the students, not to the slides / blackboard
- ✓ Make eye contact with the students in different parts of the classroom
- ✓ Talk clearly, not too fast, not too slow
- ✓ Use humor judiciously. Keep it professional.

Step 5: Provide links for web content

The activities/elements adopted in the department to maintain quality in classroom teaching are shown in Figure B.2.2.1.v.

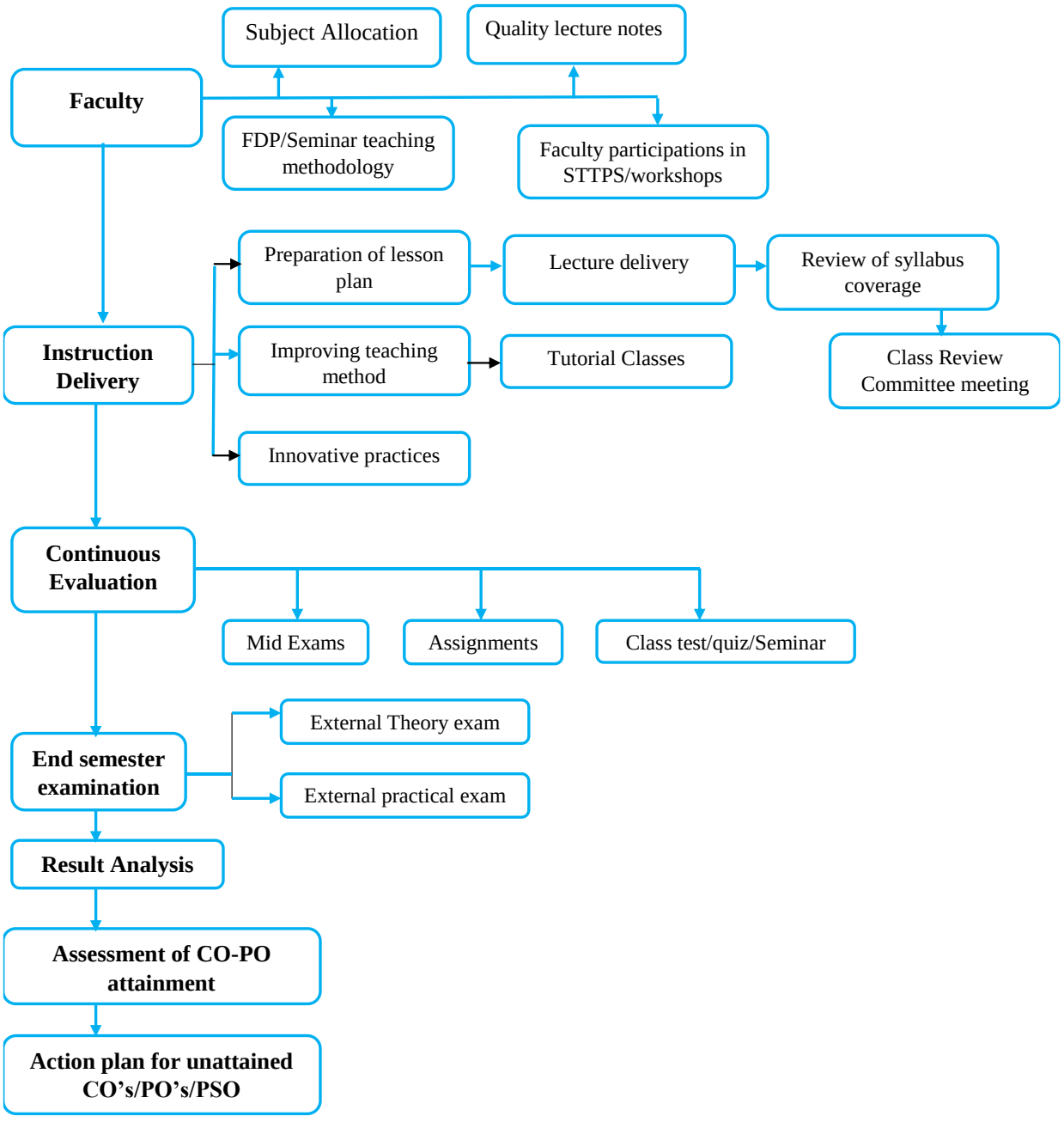


Figure B.2.2.1.v: Elements of Quality class room teaching

1) Quality Lecture Notes

Faculty members prepare/update lecture notes for allotted subjects by referring various prescribed text books, Question banks of previous examinations, relevant NPTEL courses and other e-resources from Google and also by participating in various workshops / FDPs / STTPs organized within and outside the VIEW campus in India to enhance the practical knowledge. The quality of the prepared materials are been internally verified by the senior professors in the department or by the faculty who have taught the same subject in the previous years. The course coordinator for the allotted course maintains a course file after the semester that includes the following:

- Department Mission, Vision
- Program outcomes
- Course syllabus
- Course outcomes
- CO-PO Mapping
- University Academic Calendar
- Department Academic Calendar
- Course Delivery plan/Lesson Plan
- Course Time-Table
- Lecture Notes
- Question Bank (unit wise)
- Multiple Choice Questions
- Tutorial Topics/Problems
- Topics beyond Syllabus
- PPT's/videos/other materials
- Internal question papers & scheme
- Assignment Questions
- University old question Papers
- Gap Analysis
- Remedial Classes to weak students

- Result Analysis & Course attainments

2) FDP/Seminar in Teaching Methodology

Faculty Development programs in teaching methodology is organized in June / July every year in VIEW for faculty members having < 2 years' experience. HoD also conducts a seminar on guidelines for effective teaching to all faculty members at the Department level. The newly recruited faculty in the department are also training on writing the COs for the course, CO-PO mapping. Orientation classes are organized for the newly recruited faculty under the guidance of principal with HoD and senior faculty in the department for continuous improvement in teaching learning process.

3) Lesson/ Lecture Plan

It is a regular practice in our institution to prepare Lesson Plan prior to the commencement of the class work to the courses handled by the individual faculty taking the guidance from the course coordinator. Lesson plans are prepared by faculty members, based on the Academic calendar, syllabus and weekly load, which is reviewed and approved by HoD and Principal. The lesson plan comprises of the entire plan for the course with dates adhering to the department, institute and university calendars. The sample Lecture plan for IV-II for academic year 2019-20 is below.

Week	Day	DS	ML	CPP	MS	PROJECT WORK
1	18.11.19 to 23.11.19	**Unit-1** Introduction to Distributed Systems	**Unit 1** The ingredients of machine learning, Tasks	**Unit-1** Concurrent versus sequential programming	**Unit-1** Management functions, nature, importance	
2	25.11.19 to 30.11.19	Introduction to System models	Binary classification and related tasks:	Concurrent programming constructs	Types of Organization structure	
3	02.12.19 to 07.12.20	Fundamental Models	**Unit-2** Beyond binary classification	Race condition. Synchronization primitives	Modern Theories of organization	
4	09.12.19 to 14.12.19	**Unit-2** Introduction to Inter Process Communication	Unsupervised and Supervised, descriptive learning	**Unit-2** Processes and threads. Interprocess communication	**Unit-2** Operations Management, principles of organization	
5	16.12.19 to 21.12.19	The API for the Internet Protocols: TCP Stream Communication	Concept learning	Livelock and deadlocks, starvation, and deadlock prevention	X-chart, P charts and R charts	
6	23.12.19 to 24.12.19	Group Communication IP Multicast	Beyond conjunctive concepts	Issues and challenges in concurrent programming paradigm	ABC analysis, EOQ Analysis, SQC	
	28.12.19	Examples- Reliability and ordering	**Unit 3** Tree models, Ranking and probability estimation trees	current trends	**Unit 3** Functional Management, HR Functions	
7	30.12.19 to 04.01.20	**Unit-3** Distributed Objects and Remote Invocation	Rule models	**Unit-3** Parallel algorithms – sorting, ranking	Product Life Cycle, Channels of Distributions	
8	06.01.20 to 10.01.20	Remote Procedure Call, Events and Notifications, Case studies on RMI, RPC	Descriptive rule learning, First-order rule learning	searching, traversals, prefix sum etc	Marketing Management	
11	27.01.20 to 01.02.20	**Unit-4** Introduction – Distributed Operating system,Middlewa	**UNIT -4** The least-squares method, The perceptron: a heuristic	**Unit-4** Parallel programming paradigms – Data parallel, Task parallel	**Unit-4** Network Analysis, Activity, Events	

12	**03.02.20 to 08.02.20**	Processes and Threads & Threads in Distributed systems	Support vector machines, obtaining probabilities from linear classifiers	Shared memory and message passing	Critical Path Method, Problems	
13	**10.02.20 to 15.02.20**	**Unit-5 Introduction to Distributed File Systems**	Distance Based Models	Parallel Architectures, GPGPU	Project Evaluation and Review Technique	
14	**17.02.20 to 20.02.20**	Routing Overlays, Distributed Mutual Exclusion	Unit-5 Probabilistic Models	pthreads, STM	Project Crashing, Problems on Project Crashing	
	22.02.20	The bully algorithm	Features	**Unit-5** OpenMP	**Unit-5** Strategic Management	
15	**24.02.20 to 29.02.20**	Multicast Communication	Model ensembles: Bagging and random forests, Boosting	OpenCL, Cilk++	SWOT Analysis, Environmental scanning	
16	**02.03.20 to 07.03.20**	**Unit 6** Transactions & Replications, Distributed dead locks	**Unit 6** Dimensionality Reduction	Intel TBB, CUDA	Strategy Formulation	
17	**09.03.20 to 14.03.20**	Transaction recovery	Neural network representation	**Unit-6** Heterogeneous Computing: C++AMP,	**Unit-6** Contemporary Management, SCM, CMM,BPO	
18	**16.03.20 to 21.03.20**	Replication – Introduction	Multilayer networks and the back-propagation algorithm.	OpenCL	Six Sigma, ERP, MIS, TQM	

Figure B.2.2.1.w: Lecture plan for the Academic Calendar 2019-20 Semester-II Subjects

4) Instruction Delivery

Faculty members take classes as per time table and lesson plan, duly compensating for lost classes due to leaves or unexpected holidays following various teaching-learning techniques and aids that are suitable for a particular topic to be discussed in the class effectively. The entire faculty also adopts ARCS (Attention, Relevance, Confidence and Satisfaction) model of instruction delivery. While delivering the lecture faculty draw the attention of students in the class room by giving examples to related topics. The faculty explains the relevance of the topic to students by bringing its future use in industry and R&D applications. To create confidence in the students, their future goals are prepared and displayed in their study room or hostel room. Great scientist's photos like Einstein, Faraday, etc., were asked to display in their study room. The goals are revised by the faculty frequently. To create satisfaction among students, outstanding performance students are appreciated through rewards in public, like displaying names in college notice board, special appreciation from principal, fee wavering from management. Newly recruited faculties are trained on how to use the ICT tools for lecture delivery. Easy concepts are explained with PPTs, models using ICT tools. Difficult concepts that are practical oriented are explained in Labs. ICT based classrooms in the department helps the faculty to implement OBE and students to improve their learning skills.

5) Continuous Evaluation

This consists of two mid exams for every semester both descriptive and objective conducted by university with assignments for theory courses and weekly viva voce, Observation and Record evaluation and internal Lab exam for Laboratory courses. There are surprise tests conducted once in 3 to 4 days to understand the attention level of students.

6) Review of Syllabus Coverage

HoD reviews the coverage of syllabus on a regular basis in faculty meetings. Student Review Committee (SRC) constitutes of HoD, two bright and two average students of the class along with class faculty and class coordinator. CRC meetings are organized before each mid examination to review the syllabus coverage of each course.

7) End Semester Exams

These are conducted as per the academic calendar provided by JNTUK. End semester practical exams are conducted with one internal examiner and one external examiner.

8) Results Analysis

Analysis of results for mid examination is carried out for taking action for low pass percentage in any course to improve the result in the end examination. Analysis is also done after the end examination results by the examination cell. They provide marks/grades of each student for every course. With respect to results, we are proud to convey that Vignan's Institute of Engineering for Women remains in the first five places of the JNTUK affiliated colleges from year it started even though the ranks of the students joining the college ranges from 10,000 to 60,000. This elevates the effectiveness of the teaching learning process in the college.

9) Assessment of CO-PO Attainment

The procedure for assessment of CO-PO attainment has been evolved over a period of time in the department. CO attainment is calculated by the concerned subject faculty and PO attainment is done the concerned coordinator(s). Action plan for unattained POs/PSOs is drafted to implement in the next academic year.

Impact Analysis:

- Improved results of students every year placing the institute in the top 5 places among the university affiliated colleges implementing all these elements in the classroom.
- Upgradation of faculty themselves with the methodologies implemented in the department.

E. Conduct of experiments (3)

(Observation in Lab)

Being a technical institute the labs in the college are equally important than the classroom to gain the practical oriented engineering knowledge and for the development of skills. The Laboratory experiments are conducted through the following measures:

i. Sufficient number of computers is available in the lab for conducting the lab session.
ii. All the computers provided are in good working condition.
iii. Programmers in the lab are technically competent and they are responsible to verify the readiness of the lab before conducting the lab session.

iv. Every student is provided with one computer on 1:1 ratio which ensures quality of laboratory experience.

v. Manuals are provided for all experiments in the laboratories before the commencement of the lab sessions.

vi. The concept of the program to be coded and executed in the lab is thoroughly explained in the class work and lab.

vii. Same program is written and executed by all the students in a lab session.

viii. Faculty member monitors to see that every student is involved in writing the program, debugging the program and obtaining the correct outputs.

ix. Analysis and writing programs, executing and obtaining the results is done by students individually. The obtained results are validated for all test cases.

x. Simultaneously, faculty also monitors the attitude and behavior of the students and same is recorded at the end of the attendance register on any inappropriate actions.

xi. First year students who are using the computer for the first time are supported to operate on the system until they are trained well to use the system without anyone's help.

xii. There are few experiments included as content beyond the syllabus to meet the needs of the industry.

xiii. Few experiments are conducted in groups to implement collaborative learning that facilitates the individual to work in a team.

xiv. Viva-voce is conducted after each lab session.

F. Continuous assessment in the Laboratory (3)

For internal evaluation, total 25 marks are sub-categorized to 10 marks for Write-up and evaluation, 10 marks for continuous assessment and 5 marks for record work. Rubrics are used for the assessment of students in each Lab session.

Rubric for day-to-day evaluation:

The rubric for day-to-day evaluation is designed based on student technical skills, Laboratory skills, interpersonal skills and regularity. The rubric for a Lab session is designed to assess the student's:

- **Technical Skills:**

- Prior preparation of the student to do the current experiment.
- Programming knowledge of the student to interpret the results.
- Participation of student in performing the experiment.
- Evaluate the experiment using various methods and suggest possible improvements and further investigations.

- ***Interpersonal Skills:***
  - Time management-Ability to complete the task in stipulated time.
  - Communication skills- Able to explain the obtained results.

Assessment Sheet:

Name of the Lab:		Date:
Regd. No:		
Experiment No:		
ASSESSMENT	MAXIMUM MARKS	MARKS AWARDED
Coding Skill	5	
Execution of program	3	
Viva Questions	2	
Total	10	

Figure B.2.2.1.x: Day-to-day evaluation sheet for laboratory session

- **Coding Skill**: Student coding skills are tested/ graded for efficient programming
- **Execution**: Execution and validity of the current program with different test cases.
- **Viva-Voce:** Student understanding level of concepts and subject content is adequate while answering the questions.

Rubric sheet for day-to-day evaluation:

Name of the Lab		**Date**	
Name of the Student		**Regd. No.**	
Name of the experiment		**Max. Marks**	10 Marks

Metrics/ Attributes	Allotted Marks	Excellent	Good	Average/Needs Improvement	Score
Coding	**5 Marks**	Suffice knowledge on the basic concepts to write the code to the program.	Good knowledge to write the code to the program. Correlation to the theoretical concept is missing.	No prior to write the code to the program	
		4-5 M	2-3M	0-1M	
Execution	**3 Marks**	Executed the program with correct output.	Executed the program with incorrect output.	Executed the program with errors	
		3 M	2M	1M	
Viva	**2Marks**	Answered all the questions.	Answered few questions.	Did not answer any question.	
		2 M	1M	0M	
Total Score					

Faculty Incharge

Figure B.2.2.1.y: Rubric sheet for day-to-day evaluation

G. Student feedback on teaching-learning process and action taken (6)

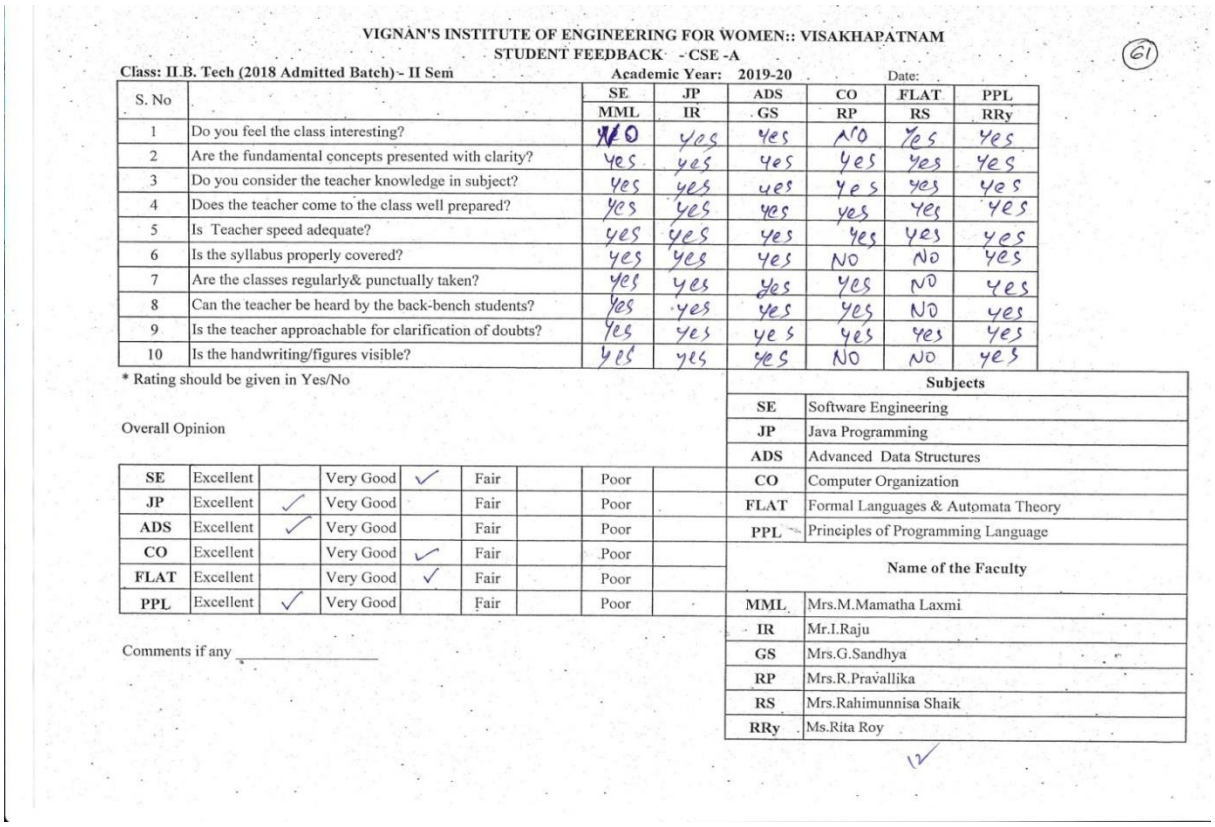
Feedback is taken from students on the effectiveness of teaching and subject learning at different points of time during the semester. Initially, verbal feedback is taken from each class informally by HoD after 1-2 weeks of commencement of class work. Feedback is also taken during students counseling by all faculty members during the same period and communicated to the HoD. If students are facing difficulty in any subject, the concerned faculty member is informed of the same.

Besides the above, offline students feedback is taken anonymously once every semester under Principal's guidance. The feedback is analyzed and communicated to all faculty members with necessary remarks by the HoD and Principal. This feedback is considered part of Annual Performance Appraisal of the faculty member with a weightage of 25% in Teaching-Learning and Evaluation category. More than 90% of the faculties are graded on 9 to 10 point scale which

evidences for good quality in the teaching. A sample format of the student feedback form is as follows in Figure: B.2.2.1.t and a sample feedback evaluation sheet in Figure: B.2.2.1.u.

Action Taken

- The faculty with less feedback is asked to give an orientation class before Principal, HoD and another senior subject faculty, giving guidelines for improvement.
- The lecture- notes is reviewed and necessary suggestions in the subject are offered.
- They are also suggested to refer more books and senior faculty materials.
- They are advised to rewrite the lecture material.
- After 2-3 weeks, feedback is again taken from students in the subject for necessary action.
- In extreme cases, where the faculty member is unable to improve to the minimum desired standard, the faculty member is changed and another faculty is allotted for the same subject.
- Faculties are also analyzed by the results produced for the courses they handled.



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN:: VISAKHAPATNAM

STUDENT FEEDBACK - CSE -A

(61)

Class: II.B. Tech (2018 Admitted Batch) - II Sem Academic Year: 2019-20 Date:

S. No		SE / MML	JP / IR	ADS / GS	CO / RP	FLAT / RS	PPL / RRy
1	Do you feel the class interesting?	NO	yes	yes	NO	yes	yes
2	Are the fundamental concepts presented with clarity?	yes	yes	yes	yes	yes	yes
3	Do you consider the teacher knowledge in subject?	yes	yes	yes	yes	yes	yes
4	Does the teacher come to the class well prepared?	yes	yes	yes	yes	yes	yes
5	Is Teacher speed adequate?	yes	yes	yes	yes	yes	yes
6	Is the syllabus properly covered?	yes	yes	yes	NO	NO	yes
7	Are the classes regularly& punctually taken?	yes	yes	yes	yes	NO	yes
8	Can the teacher be heard by the back-bench students?	yes	yes	yes	yes	NO	yes
9	Is the teacher approachable for clarification of doubts?	yes	yes	yes	yes	yes	yes
10	Is the handwriting/figures visible?	yes	yes	yes	NO	NO	yes

* Rating should be given in Yes/No

Overall Opinion

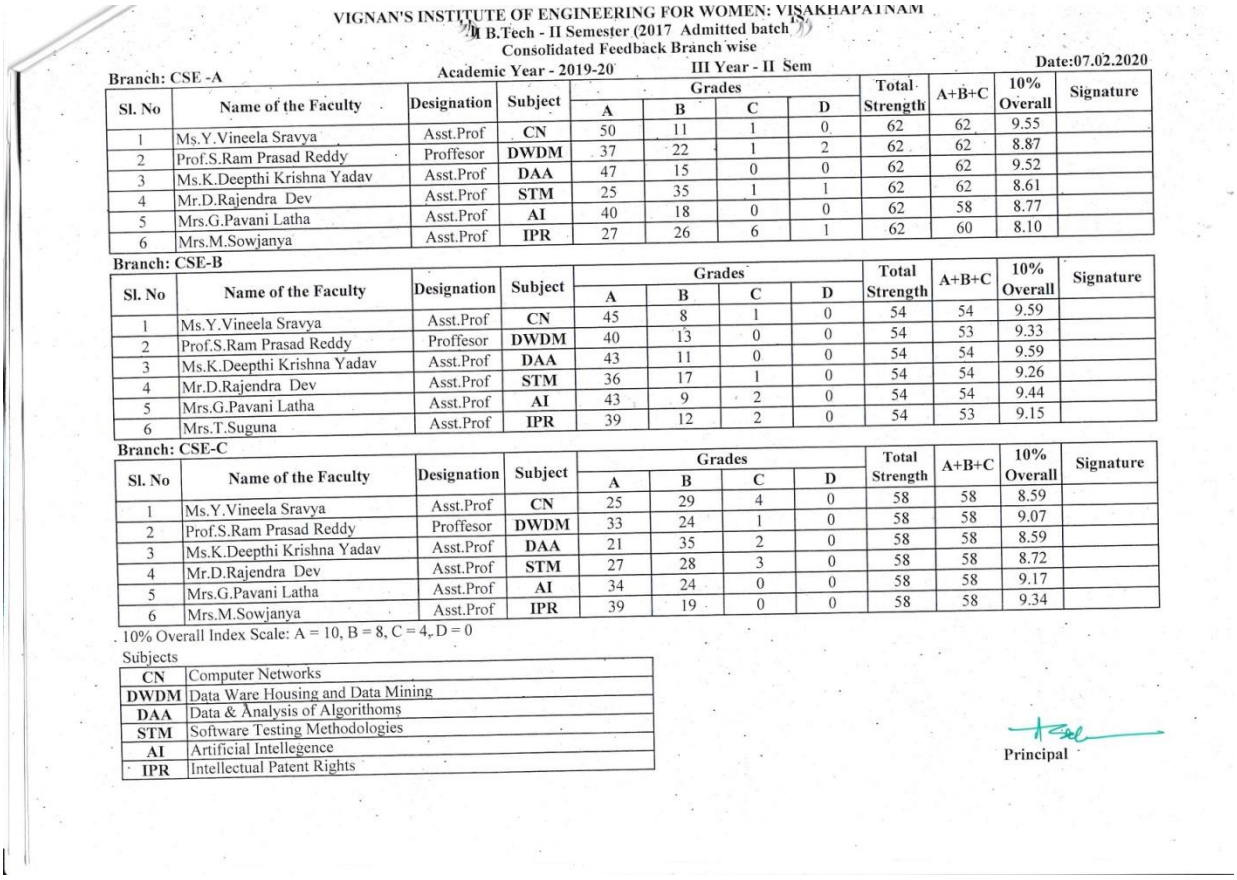
	Excellent		Very Good		Fair		Poor	
SE	Excellent		Very Good	✓	Fair		Poor	
JP	Excellent	✓	Very Good		Fair		Poor	
ADS	Excellent	✓	Very Good		Fair		Poor	
CO	Excellent		Very Good	✓	Fair		Poor	
FLAT	Excellent		Very Good	✓	Fair		Poor	
PPL	Excellent	✓	Very Good		Fair		Poor	

Comments if any _____

Subjects	
SE	Software Engineering
JP	Java Programming
ADS	Advanced Data Structures
CO	Computer Organization
FLAT	Formal Languages & Automata Theory
PPL	Principles of Programming Language

Name of the Faculty	
MML	Mrs.M.Mamatha Laxmi
IR	Mr.I.Raju
GS	Mrs.G.Sandhya
RP	Mrs.R.Pravallika
RS	Mrs.Rahimunnisa Shaik
RRy	Ms.Rita Roy

Figure B.2.2.1.z: Sample Student Feedback Form



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN: VISAKHAPATNAM

M B.Tech - II Semester (2017 Admitted batch)

Consolidated Feedback Branch wise

Academic Year - 2019-20 III Year - II Sem Date:07.02.2020

Branch: CSE -A

Sl. No	Name of the Faculty	Designation	Subject	Grades				Total Strength	A+B+C	10% Overall	Signature
				A	B	C	D				
1	Ms.Y.Vineela Sravya	Asst.Prof	CN	50	11	1	0	62	62	9.55	
2	Prof.S.Ram Prasad Reddy	Proffesor	DWDM	37	22	1	2	62	62	8.87	
3	Ms.K.Deepthi Krishna Yadav	Asst.Prof	DAA	47	15	0	0	62	62	9.52	
4	Mr.D.Rajendra Dev	Asst.Prof	STM	25	35	1	1	62	62	8.61	
5	Mrs.G.Pavani Latha	Asst.Prof	AI	40	18	0	0	62	58	8.77	
6	Mrs.M.Sowjanya	Asst.Prof	IPR	27	26	6	1	62	60	8.10	

Branch: CSE-B

Sl. No	Name of the Faculty	Designation	Subject	Grades				Total Strength	A+B+C	10% Overall	Signature
				A	B	C	D				
1	Ms.Y.Vineela Sravya	Asst.Prof	CN	45	8	1	0	54	54	9.59	
2	Prof.S.Ram Prasad Reddy	Proffesor	DWDM	40	13	0	0	54	53	9.33	
3	Ms.K.Deepthi Krishna Yadav	Asst.Prof	DAA	43	11	0	0	54	54	9.59	
4	Mr.D.Rajendra Dev	Asst.Prof	STM	36	17	1	0	54	54	9.26	
5	Mrs.G.Pavani Latha	Asst.Prof	AI	43	9	2	0	54	54	9.44	
6	Mrs.T.Suguna	Asst.Prof	IPR	39	12	2	0	54	53	9.15	

Branch: CSE-C

Sl. No	Name of the Faculty	Designation	Subject	Grades				Total Strength	A+B+C	10% Overall	Signature
				A	B	C	D				
1	Ms.Y.Vineela Sravya	Asst.Prof	CN	25	29	4	0	58	58	8.59	
2	Prof.S.Ram Prasad Reddy	Proffesor	DWDM	33	24	1	0	58	58	9.07	
3	Ms.K.Deepthi Krishna Yadav	Asst.Prof	DAA	21	35	2	0	58	58	8.59	
4	Mr.D.Rajendra Dev	Asst.Prof	STM	27	28	3	0	58	58	8.72	
5	Mrs.G.Pavani Latha	Asst.Prof	AI	34	24	0	0	58	58	9.17	
6	Mrs.M.Sowjanya	Asst.Prof	IPR	39	19	0	0	58	58	9.34	

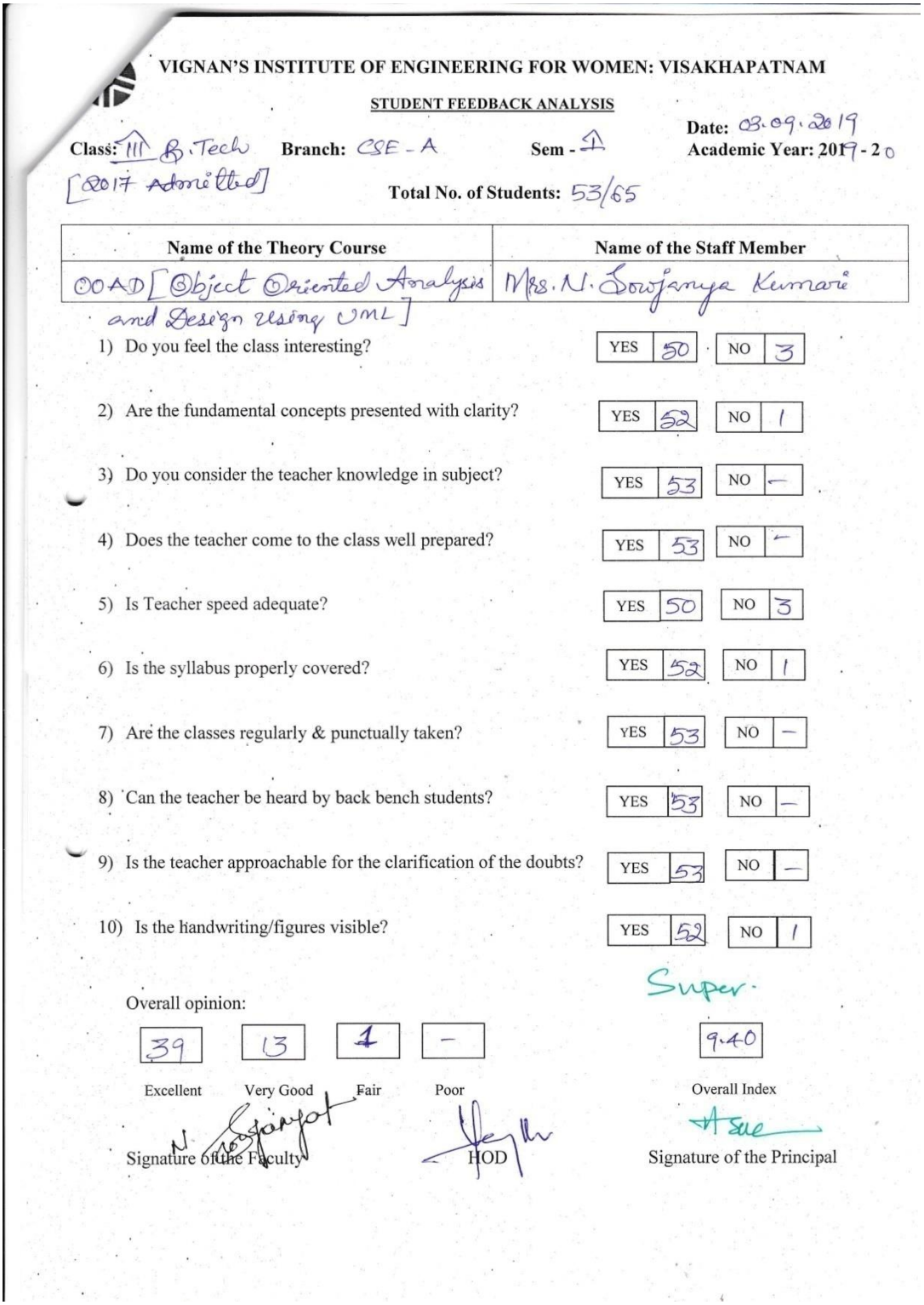
10% Overall Index Scale: A = 10, B = 8, C = 4, D = 0

Subjects

CN	Computer Networks
DWDM	Data Ware Housing and Data Mining
DAA	Data & Analysis of Algorithoms
STM	Software Testing Methodologies
AI	Artificial Intellegence
IPR	Intellectual Patent Rights

Principal

Figure B.2.2.1.aa: A Sample consolidated evaluation sheet



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN: VISAKHAPATNAM

STUDENT FEEDBACK ANALYSIS

Class: III B.Tech Branch: CSE - A Sem - I Date: 03.09.2019
[2017 Admitted] Academic Year: 2019 - 20

Total No. of Students: 53/65

Name of the Theory Course	Name of the Staff Member
OOAD [Object Oriented Analysis and Design using UML]	Mrs. N. Sowjanya Kumari

	YES	NO
1) Do you feel the class interesting?	50	3
2) Are the fundamental concepts presented with clarity?	52	1
3) Do you consider the teacher knowledge in subject?	53	–
4) Does the teacher come to the class well prepared?	53	–
5) Is Teacher speed adequate?	50	3
6) Is the syllabus properly covered?	52	1
7) Are the classes regularly & punctually taken?	53	–
8) Can the teacher be heard by back bench students?	53	–
9) Is the teacher approachable for the clarification of the doubts?	53	–
10) Is the handwriting/figures visible?	52	1

Super.

Overall opinion:

Excellent	Very Good	Fair	Poor	Overall Index
39	13	1	–	9.40

Signature of the Faculty HOD Signature of the Principal

Figure B.2.2.1.ab: Sample Student Feedback Evaluation Sheet for each Faculty

Impact Analysis:

- Improvement in presentation skills of the faculty lecture delivery after the orientation class/classes.
- Improvement in student feedback of the concerned faculty.
- Improvement in result of the concerned course.

The list of faculties who has given orientation class in the last three academic years is given below in Table B.2.2.1.l.

Sl. No.	Academic Year	Year/Section/ Semester	Course Name	Name of the faculty	No. of times Orientation Conducted	Improvement in Feedback (on 10 point scale)
1	2019-20	III CSE A - I	UP	Mrs. M.Mamata Laxmi	4	9.13
2	2019-20	II CSE B - I	DLD	Mr.T.Haribabu	2	9.65
3	2018-19	III CSE C - II	STM	Mrs. V. SreeLahari	2	9.17
4	2017-18	III CSE A - I	PPL	Ms. D. Chandrika	3	7.2
5	2017-18	III CSE B - II	SE	Mrs. M.Mamata Laxmi	3	6.69

Table B.2.2.1.l: Impact Analysis of Orientation Classes

The list of faculties to whom the subject is changed in the last three academic years due to less feedback is given below in Table B.2.2.1.m.

Sl. No.	Academic Year	Year/Section/ Semester	Course Name	Name of the old faculty	Name of the new faculty
1	2019-20	II CSE A/B/C – I	MFCS	D. Kamal Kumari	G. Ravi Kumar
2	2018-19	IV CSE A/B – I	UDP	D. Kamal Kumari	R. Ravi
3	2017-18	III CSE A – I	CD	Ch. Venkat Bhikshapathi	R. Pravallika

Table B.2.2.1.m: List of faculty whose course is changed due to poor feedback

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)

(Mention the initiatives, implementation details and analysis of learning levels related to quality of semester question papers, assignments and evaluation)

A. Process for internal semester question paper setting and evaluation and effective process implementation (5)

- Question paper for internal examination (Mid exam) is set in the standard format by the subject faculty for approximately 50% of the total syllabus for each mid exam.
- Under JNTUK regulations, the pattern of mid exam question paper consists of 3 questions and the student has to answer all the 3 Questions. Each question carries 5 marks. This descriptive exam is conducted for 15 marks.
- The department ensures that the faculty completes the syllabus required to conduct exam by taking the course completion survey report twice in a semester.
- Two sets of question paper will be prepared by the faculty.
- The question paper contains questions from the syllabus with COs coverage and the level of difficulty as per the revised Bloom's Taxonomy action verbs. Scheme of evaluation will be prepared by the corresponding faculty.
- The quality of the question paper is evaluated by the members of IQAC and the report is submitted to Principal and HoD for further action or for improvement if required.
- One set will be selected by the institutional head/ HoD one hour before on the day of exam.
- The faculty member prepares scheme of valuation for the mid exam question paper and evaluates the answer scripts as per the scheme.
- The scheme of valuation and the valued answer scripts are shared with the students to maintain transparency and affix their signature on the answer script after scrutiny.
- The students are given a chance to ask doubts regarding the evaluation procedure or marks allotted. The doubts are clarified by the course coordinator and the assessment is done.
- Mid marks will be displayed in the notice boards for students.
- Academically poor students will be identified and remedial classes are organized to improve their learning ability through tests, assignments etc.

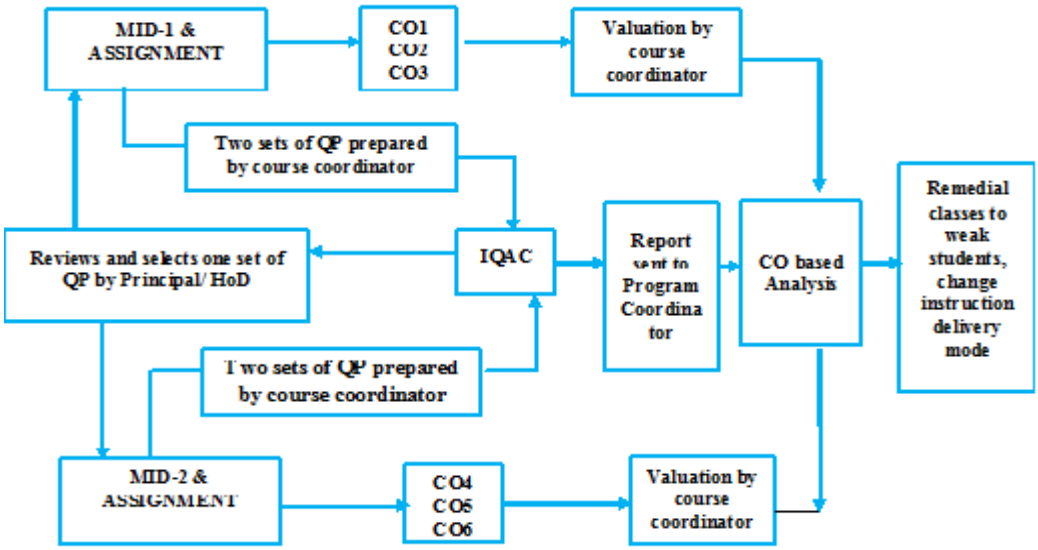


Figure B.2.2.2.a: Process for Internal Examination evaluation &assessment

The Sample Question paper under R16 Regulations for Web Technologies of Mid-II is shown below:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049)

Mid Term Examination-II **SET-1**

(IV- B.Tech I Semester, Regulations: R16)

Course Name: Web Technologies **Max Time: 1 ½ Hrs.**

Branches: IV CSE A / B/ C **Max Marks: 15**

Faculty: Mrs.P.Vijaya Bharati/Mr.L.Bhupathi Rao/Mr.A.Maheshwara Rao **Date: 14-10-2019**

CO: Course Outcome no. (1-6), LEVEL: Revised Bloom's Taxonomy level no. (1-6)

Answer **ALL** Questions **3x5=15 M**

CO	LEVEL	Q.No	QUESTION
CO4 (K3)	1a: K2 1b: K3	01	a) Explain any four pre defined functions in PHP with examples. **(2M)** b) Explain PHP form processing with an example. **(3M)**
CO5 (K3)	2a: K3 2b: K3	02	a) Write a program to copy content from one file to another file using Perl. **(3M)** b) Illustrate the concept of Subroutines. **(2M)**
CO6 (K3)	3a: K2 3b: K3	03	a) Discuss access controls in ruby with examples. **(3M)** b) Write a ruby program to find out factorial of given number using class. **(2M)**

*** K1 (R): Remembering, K2 (U): Understanding, K3 (P): Applying,**
*** K4 (A): Analyzing, K5 (E): Evaluating, K6 (C): Creating.**

COURSE CODE: R1641053

Figure B.2.2.2.b: Sample Question paper

The scheme of evalation to the above question paper for the course web technologies of Mid-II is given below:

Answer all the questions
[3*5=15]

1. a. Explain any four pre defined functions in PHP with examples. (2M)

- Any 4 functions – ½ * 4 = 2 M

b) Explain PHP form processing with an example. (3M)

- Submitting the form data – 1 M
- Retrieving the form data – 1 M
- Validating the form data – 1 M

2. a. Write a program to copy content from one file to another file using Perl. (2M)

Program – 2M

```
use strict;
use warnings;
use vars qw($filecontent  $total);
my $file1 = "file1.txt";
open(FILE1, $file1) || die "couldn't open the file!";
open (FILE2, '>>file2.txt') || die "couldn't open the file!";
while ($filecontent = <FILE1>)
{
        chomp ($filecontent);
        print FILE2 $filecontent."\n";
}
close(FILE1);
close(FILE2);
```

b. Illustrate the concept of Subroutine. (2M)

- Subroutine definition and usage – 1 M
- Subroutine examples – 1 M

3. a. Discuss access controls in ruby with examples. (3M)

- Private – 1 M
- Public – 1 M
- Protected – 1 M

b. Write a ruby program to find out factorial of given number using class. (2M)

Program– 2M

```
class Factorial
  attr_reader :num
  def initialize(num)
    @num = num
  end
  def find_factorial
    (1..num).inject(:*) || 1
  end
end
puts "Input any number:"
n = gets.to_i
number = Factorial.new(n).find_factorial
puts number
```

Figure B.2.2.2.c: Scheme of Evaluation

B. Process to ensure questions from outcomes/learning levels perspective (5)

- The department ensures that the faculties strictly follow the learning levels while preparing the question paper for internal examination.
- The course coordinator defines the Course Outcomes for the allotted course and maps the COs to POs.
- The COs are written considering the contents in the syllabus and the ability of the student to learn after successful completion of the course.
- The verb used to describe the CO specifies the Blooms Taxonomy level of understanding.
- The course coordinator while preparing the questions for internal examination ensures that the questions framed are also mapped to the same level as defined by COs and is clearly indicated in the question paper.

A sample copy of question with their levels along with the COs for the Web technologies is shown:

Course Name: **Web Technologies**	Course Code:**C403**
Year/ Sem : **IV B TECH I SEM**	Regulation: **R16**
Admitted Batch: 2**016-20**	Academic Year:**2019-20**
Course Coordinator :**Dr. P. Vijaya Bharati**	

CO	DESCRIPTION
CO1	Practice developing web pages and identify its elements and attributes.
CO2	Use javascript at the backend for creating web pages.
CO3	Write simple client-side scripts using AJAX.
CO4	Develop web applications using PHP.
CO5	Evolve Dynamic web pages using PERL Script.
CO6	Develop Dynamic web pages using RUBY.

CO	Action Verb	Revised Blooms Taxonomy Level
1	Practice	Apply (**K3**)
2	Use	Apply (**K3**)
3	Write	Apply (**K3**)
4	Develop	Apply (**K3**)
5	Evolve	Apply (**K3**)
6	Develop	Apply (**K3**)

Table B.2.2.2.a: Questions with their levels along with the COs for the Web technologies

It is very clear from the question paper above that the Mid-I paper from the first three unit's covers the COs either with the same level or a lower level.

Question	Action Verb Used	Revised Blooms Taxonomy Level
1a	Write	Apply (**K3**)
1b	Write	Apply (**K3**)
2a	Write	Apply (**K3**)
2b	Explain	Apply (**K3**)
3a	Explian	Apply (**K3**)
3b	Discuss	Apply (**K3**)

C. Evidence of COs coverage in class tests/ mid-term tests (5)

For example, considering the COs of course web technologies and comparing it with Mid-I and Mid-II paper verifying the coverage of COs in the question paper is shown below:

The Course Outcomes of the course web technologies for R16 regulation are

CO1: Practice developing web pages and identify its elements and attributes.

CO2: Use javascript at the backend for creating web pages.

CO3: Write simple client-side scripts using AJAX.

CO4: Develop web applications using PHP.

CO5: Evolve Dynamic web pages using PERL Script.

CO6: Develop Dynamic web pages using RUBY.

Considering Set-I of Mid-I:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049)

Mid Term Examination-I

SET-1

(IV- B.Tech I Semester, Regulations: R16)

Course Name: Web Technologies **Max Time: 1 ½ Hrs.**

Branches: IV CSE A /B/C **Max Marks: 15**

Faculty: Mrs.P.Vijaya Bharati/Mr.L.Bhupathi Rao/Mr.A.Maheshwara Rao **Date: 07-08-2019**

CO: Course Outcome no. (1-6), LEVEL: Revised Bloom's Taxonomy level no. (1-6)

Answer **ALL** Questions **3x5=15 M**

CO	LEVEL	Q.No.	QUESTION
CO1 (K3)	**1a: K3 1b: K3**	**01**	a) Write about different list tags in HTML. **(2M)** b) Write a style must be used to put a dotted border around text with the border red and thin on the left, and blue and thick on the right. **(3M)**
CO2 (K3)	**2a: K3 2b: K3**	**02**	a) Write a java script that asks the user to enter two numbers, obtains the two numbers from the user and outputs text that display the sum, product, difference and quotient of the two numbers. **(2M)** b) Explain three possible values of position properties. Write a java script to move an element to new position. **(3M)**
CO3 (K3)	**3a: K3 3b: K3**	**03**	a) Explain the four possible keywords in a DTD declaration with examples. **(2M)** b) Discuss briefly the integration of PHP and AJAX with an example. **(3M)**

*** K1 (R): Remembering, K2 (U): Understanding, K3 (P): Applying,**
*** K4 (A): Analyzing, K5 (E): Evaluating, K6 (C): Creating.**

COURSE CODE: R1641053

Figure B.2.2.2.d: Web Technologies R16 Mid –I Question paper

Justification of Bloom's taxonomy action verbs in question paper:

CO No.	Action Verbs Used	Revised Blooms Taxonomy Level	Question No.	Question Verbs	Revised Blooms Taxonomy Level
1	Practice	Apply (**K3**)	1a	Write	Apply (**K3**)
			1b	Write	Apply (**K3**)
2	Use	Apply (**K3**)	2a	Write	Apply (**K3**)
			2b	Explain	Apply (**K3**)
3	Write	Apply (**K3**)	3a	Explian	Apply (**K3**)
			3b	Discuss	Apply (**K3**)

Considering Set-I of Mid-II:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049)

Mid Term Examination-II **SET-1**

(IV- B.Tech I Semester, Regulations: R16)

Course Name: Web Technologies **Max Time: 1 ½ Hrs.**

Branches: IV CSE A / B/ C **Max Marks: 15**

Faculty: Mrs.P.Vijaya Bharati/Mr.L.Bhupathi Rao/Mr.A.Maheshwara Rao **Date: 14-10-2019**

CO: Course Outcome no. (1-6), LEVEL: Revised Bloom's Taxonomy level no. (1-6)

Answer **ALL** Questions **3x5=15 M**

CO	LEVEL	Q.No	QUESTION
CO4 (K3)	**1a: K2 1b: K3**	**01**	a) Explain any four pre defined functions in PHP with examples. **(2M)** b) Explain PHP form processing with an example. **(3M)**
CO5 (K3)	**2a: K3 2b: K3**	**02**	a) Write a program to copy content from one file to another file using Perl. **(3M)** b) Illustrate the concept of Subroutines. **(2M)**
CO6 (K3)	**3a: K2 3b: K3**	**03**	a) Discuss access controls in ruby with examples. **(3M)** b) Write a ruby program to find out factorial of given number using class. **(2M)**

*** K1 (R): Remembering, K2 (U): Understanding, K3 (P): Applying,**
*** K4 (A): Analyzing, K5 (E): Evaluating, K6 (C): Creating.**

COURSE CODE: R1641053

Figure B.2.2.2.e: Web Technologies R16 Mid –II Question paper

Justification of Bloom's taxonomy action verbs in question paper:

CO No.	Action Verbs Used	Revised Blooms Taxonomy Level	Question No.	Question Verbs	Revised Blooms Taxonomy Level
4	Develop	Apply (**K3**)	1a	Explain	Apply (**K3**)
			1b	Explain	Apply (**K3**)
5	Evolve	Apply (**K3**)	2a	Write	Apply (**K3**)
			2b	Illustrate	Apply (**K3**)
6	Develop	Apply (**K3**)	3a	Discuss	Apply (**K3**)
			3b	Write	Apply (**K3**)

It is very clear that the questions in the mid question paper covers the taxonomy level specified with the course outcomes for course web technologies and the same followed for all courses.

D. Quality of Assignments and its relevance to COs (5)

- Assignments are given to students from the topics covered for each unit and satisfying the COs defined.
- The questions framed in the assignments are taken from multiple sources (previous question papers, text books, etc) and cover not only the theoretical concepts but also impart creativity on real time applications.
- Six Assignments covering each unit are given in each subject for every semester.
- Every Assignment carries 5 marks and an average of 3 assignments for 5 marks is considered for mid exam.
- The assignments are evaluated within two weeks after submission and the valued assignments are returned to the students for their scrutiny and improvement. Mapping is done for all questions of the assignment with the COs of the course.
- The quality of the assignment questions are also audited by IQAC.

Sample Assignment questions under R16 Regulations for Web Technologies is below:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
Approved by AICTE, New Delhi, Affiliated to JNTU Kakinada
Kapujaggaraju Peta, VSEZ(post), Gajuwaka, Visakhapatnam-530049,AP

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ASSIGNMENT QUESTIONS

Course Name: **Web Technologies**	Course Code:**C403**
Year/ Sem : **IV B TECH I SEM**	Regulation: **R16**
Admitted Batch: **2016**	Academic Year:**2019-20**
Course Coordinator :**Dr. P. Vijaya Bharati**	

Unit No.	Q.No.	Questions	Issue Date	Submission Date
1	1.	Write about different list tags in HTML.	01/07/2019	06/07/2019
	2.	Write a style must be used to put a dotted border around text with the border red and thin on the left, and blue and thick on the right		

	3.	Develop an html document that displays the following table. **Name of the Student** / **Marks**: **M 1**, **M 2**, **M 3** Pravallika: 65, 78, 90 Geethika: 45, 64, 87 Kusuma: 92, 81, 76 Nandini: 56, 85, 95		

Justification of Bloom's taxonomy action verbs coverage in assignment

CO1	Action Verbs Used	Assignment Verbs	Revised Blooms Taxonomy Level
Practice developing web pages and identify its elements and attributes.	Practice	Write, Write, Develop	Apply(**K3**)

2.2.3. Quality of Student Projects (25)

(Quality of the project is measured in terms of consideration to factors including, but not limited to, environment, safety, ethics, cost, type (application, product, research, review etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention Implementation details including details of POs and PSOs addressed through the projects with justification)

It is imperative to promote the spirit of inquiry among students since lifelong learning is a synergy between teaching and research. The knowledge through lectures in classrooms, hands on experience in laboratories and self preparation in libraries do not expose students to real life situations. The adoption of participatory approach in learning, whereby the students involve themselves in identifying a problem, analysing the causes and finding the solution objectively

will have a positive impact on the students and will make the learning process more meaningful and interesting.

- Under JNTUK regulations, Project work is in IV Year II semester and the project batch allotment is done towards the end of III year II semester.
- Few project batches do mini projects in the semester break in summer holidays. And from this academic year it is made mandatory for all the batches to do mini projects to improve their technical and product development skills.
- To ensure quality in the projects implemented by the students in the department, procedural steps are implemented that includes planning, scheduling and implementation related to the completion of project.
- Separate project lab facility is provided to the students throughout the day for successful completion of the project.
- Internet is also provided to browse the literature survey and data required throughout the day.
- Software tools such as Python, MATLAB, Java, Oracle, Visual Studio .net, etc., for implementing their projects in various fields are provided in the project Lab.
- Hardware boards along with the essential hardware sensors are available in department Laboratories to support IoT project implementation.

A. Identification of Projects and Allocation Methodology to Faculty Members (3)

The HoD conducts a meeting with the senior faculty and Project Review Committee (PRC) members before the semester regarding identification of projects. In the meeting the thrust areas involving latest technologies are identified. The areas include Machine Learning, IoT, Artificial Intelligence, Cloud Computing, and Big Data which are also research domains of the faculty in the department. Few of the problem statements are identified in these areas so that the students choose the areas depending upon their interest. The process of student projects is shown in Figure B.2.2.3a.

Batch Formation

The students are divided into Project work batches by first ranking the students based on their performance in examinations (CGPA/average SGPA/number of backlogs) up to III year II semester / III Year I Semester. For example, for 15 batches the top 15 students are nominated as team leaders for the respective batches. The 16th ranker is allotted to the 15th batch, 17th ranker to the 14th batch and so on with the 30th ranker to the 1st batch. The 31th ranker is then allotted to the 1st batch and the cycle is repeated. The sample copy of student team formation is shown in Table B.2.2.3.a.

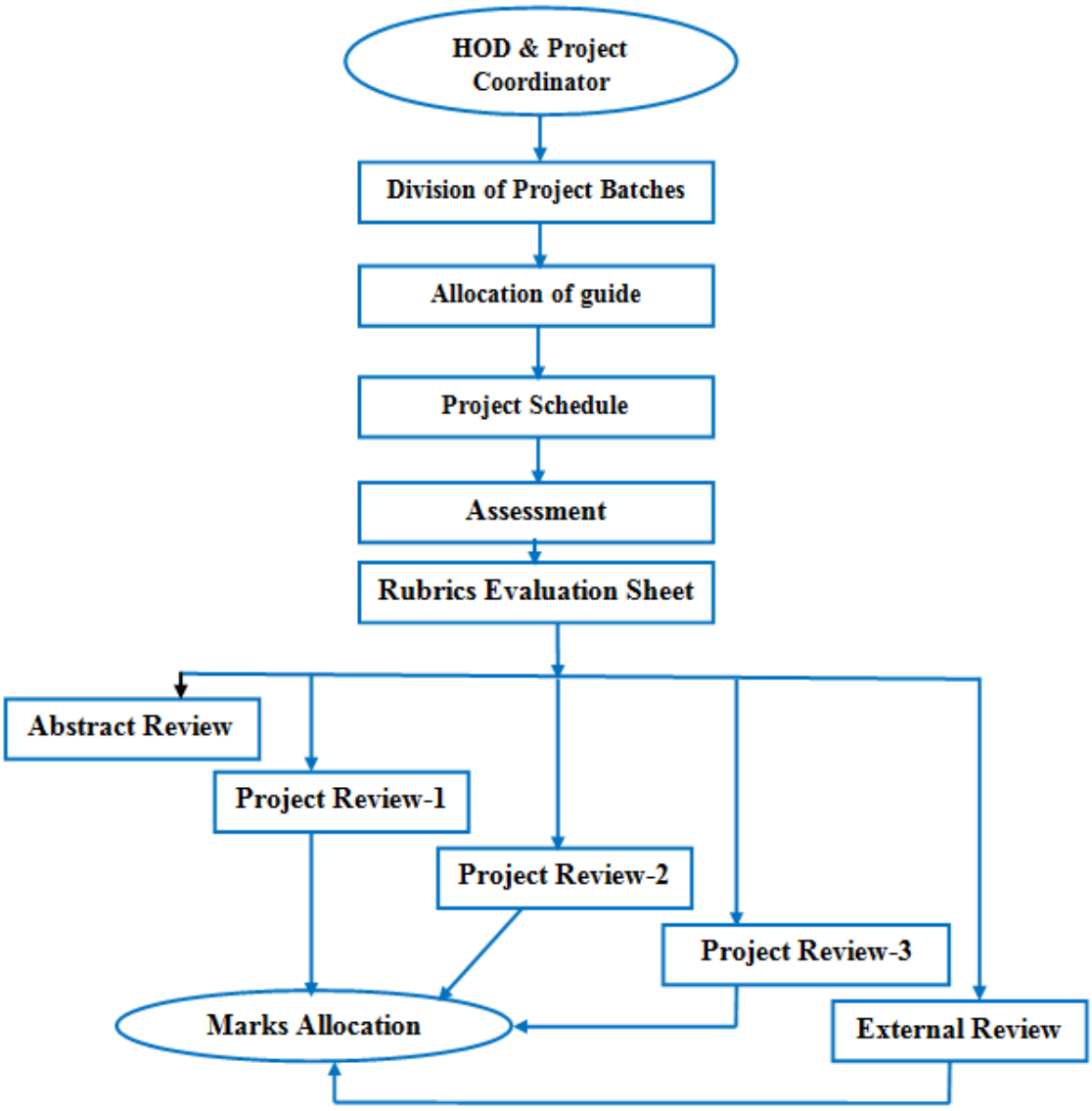


Figure B.2.2.3.a: Process followed for Student Project

S.No.	Regd. No	Name of the Student	CGPA	Class rank	Batch No.
1.	16NM1A0504	Anantapalli Sai Vaishnavi	8.83	1	1
2.	16NM1A0522	BorigiBhanusree	7.78	29	
3.	16NM1A0520	Bondhi Anjali	7.77	31	
4.	16NM1A0506	Anjali SowgandhiPiridi	5.33	60	
5.	16NM1A0536	Gandi Mounika	4.41	61	
6.	16NM1A0534	Duvvada Vandana	8.67	2	2
7.	16NM1A0508	Appikonda Surya Sai Supriya	7.78	30	
8.	16NM1A0529	Damuluri Anusha	7.76	32	
9.	16NM1A0521	BonuguSushmitha	5.60	59	
10.	16NM1A0535	Ejji Deepika	8.66	3	3
11.	16NM1A0515	BandaruRoshinidevi	7.82	28	
12.	16NM1A0514	Bammidi Saritha	7.73	33	
13.	16NM1A0516	Basheerunnisa Begum	5.80	58	
14.	16NM1A0549	JagginaDivya	8.63	4	4
15.	16NM1A0546	Gunturu LakshmiTulasi	7.86	27	
16.	16NM1A0558	Koduru Santoshi	7.72	34	
17.	16NM1A0551	Kakara Padmavathi	6.09	57	
18.	16NM1A0561	KonathalaYogitha	8.62	5	5
19.	16NM1A0548	Jaggapu Swetha	7.91	26	
20.	16NM1A0539	GhattamaneniPraharsha	7.71	35	
21.	16NM1A0523	Chakka Swapna	6.53	56	
22.	16NM1A0526	ChittuluriAlekya	8.55	6	6
23.	16NM1A0509	Asuri Sukanya	7.94	25	
24.	16NM1A0552	Kandregula Bhagya Sri	7.70	36	
25.	16NM1A0555	KazaPrathyusha	6.72	55	
26.	16NM1A0531	Devupalli Sirisha	8.35	7	7
27.	16NM1A0538	Gannu Rupa SanthiSree	7.97	24	
28.	16NM1A0554	Karanam Mary Prathyusha	7.69	37	
29.	16NM1A0505	Ande Sowmya Sri	6.90	54	
30.	16NM1A0524	Ch Sri Lalitha Navya Bharathi	8.34	8	8
31.	16NM1A0527	Chukka Ramya	7.99	23	

32.	16NM1A0556	Kesanakurthi Chinni	7.69	38	
33.	16NM1A0553	Kandula Sai Praneetha	7.06	53	
34.	16NM1A0503	Ampolu Soundarya	8.29	9	9
35.	16NM1A0563	Koyya Bhavana	8.02	22	
36.	16NM1A0533	Dunna Yamuna	7.67	39	
37.	16NM1A0501	Ahamed Unnisa	7.09	52	
38.	16NM1A0542	Gujjari Priyanka	8.26	10	10
39.	16NM1A0545	Guntrothu Devi	8.05	21	
40.	16NM1A0543	Gunda Mounika	7.62	40	
41.	16NM1A0517	BeelaYajnashireesha	7.12	51	
42.	16NM1A0525	ChintalapudiDeekshitha	8.26	11	11
43.	16NM1A0557	Kodukula Amrutha Sarvani	8.09	19	
44.	16NM1A0559	Kolluru Sai Sadhana	7.62	41	
45.	16NM1A0560	KonathalaChaturya	7.13	50	
46.	16NM1A0544	Gunisetty Naga Sai Lalitya	8.26	12	12
47.	16NM1A0537	G Krishna Kumar Sowmya	8.09	20	
48.	16NM1A0547	Indala Bhagya Lakshmi	7.61	42	
49.	16NM1A0513	BalireddySoniyaShyne	7.14	49	
50.	16NM1A0502	Aishwarya Gantayath	8.19	13	13
51.	16NM1A0512	Baliboyna Niharika	8.14	18	
52.	16NM1A0519	Bhairi Surya Teja	7.44	43	
53.	16NM1A0511	Balaka Harika	7.18	48	
54.	16NM1A0510	Atta Lavanya	8.15	14	14
55.	16NM1A0530	Dasari Vandana Sri	8.14	17	
56.	16NM1A0518	BeraMamala Sridevi	7.36	44	
57.	16NM1A0550	Jajula Poornima	7.23	47	
58.	16NM1A0541	Gowripattapu Anusha	8.15	15	15
59.	16NM1A0562	K Sri Lakshmi Prasanna	8.15	16	
60.	16NM1A0528	DadiJyothsna	7.28	45	
61.	16NM1A0507	AppikondaLeelaveni	7.254	46	

TableB.2.2.3.a: Project batch allocation based on CGPA & Class Rank

Guide Allocation Methodology*:*

- The knowledge, methodology, skill set and interest of the students to implement the project are considered to undertake the projects. All the faculties are allocated as guides to guide the student's project. Each project batch will have at most five students. Faculty profile should match with the domain of the student's project. The project batches are notified to the students along with the areas offered by the faculty members with guide names. The guide allotment is completely the responsibility of the head of the department.
- Based on the student area of interest over the project and the faculty domain knowledge the team is going to be finalized with guide by the Head of the Department and is displayed in department notice board for student and faculty reference.

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, VSEZ (Post) Duvvada, Visakhapatnam-530049)

DEPARTMENT OF CSE - (Section - A)

Project Batches - 2015-19

PROJECT COORDINATOR (Sec A)- Mrs. P Vijaya Bharati & Mr. L Bhupathi Rao

Batch Id	Roll Number	Name of the Student	Name of the Guide & Signature	Student Signature
A-1	15NM1A0559	Kotipalli Madhavi	Prof. S. Ram Prasad Reddy	
	15NM1A0532	Gude Kalyani		
	15NM1A0515	Boida Padmavathi		
	15NM1A0526	Eada Mercy Joy		
A-2	15NM1A0503	AndavarapuDivya	Mr. R. Ravi	
	15NM1A0516	Bonu Pavani		
	15NM1A0536	Gunna Moulika		
	15NM1A0505	Anjum Javeria		
A-3	15NM1A0556	KonagallaSushmitha	Mr. N. K. Santosh	
	15NM1A0527	EdubilliNagajyothi		
	15NM1A0506	AnnuPravallika		
	15NM1A0540	JinagaHimabindu		
A-4	15NM1A0508	ArasavalliSyam Sirisha	Mr. I. Raju	

	15NM1A0546	KamarsuMadhumitha		
	15NM1A0514	BendalamMounica		
	15NM1A0543	Kakinada Likhitha		
A-5	15NM1A0502	AmulojuDivya Mounika	Mrs. Y.Vineela Sravya	
	15NM1A0519	Chipurupalli G Soujanya		
	15NM1A0507	Anusha Karri		
	15NM1A0555	KolusuLahari		
A-6	15NM1A0550	KillanaCharishma	Ms. G. Sandhya	
	15NM1A0557	KondraNikitha		
	15NM1A0530	Gorli Sai Vandana		
	15NM1A0523	Dhanala Mounika		
A-7	15NM1A0517	Chapa Bhanu Sri	Mr. T. Hari babu	
	15NM1A0509	Asi Kavya Reddy		
	15NM1A0544	KallepalliRishitha		
	15NM1A0524	Dittakavi S PragnaSree		
A-8	15NM1A0551	Koduru Teja Sree	Mr. Ch. Venkata Bhikshapathi	
	15NM1A0542	Kadiyam Sudha Lakshmi		
	15NM1A0552	Kollepara Pallavi		
	15NM1A0520	DakiSowjanya		
A-9	15NM1A0554	KolusuKiranmai	Mr. P. Praveen Kumar	
	15NM1A0538	Issai Bhargavi		
	15NM1A0529	Gorli Ramya		
	15NM1A0518	Chindada LakshmiSree		
A-10	15NM1A0531	Gottumukkala Sai Saranya	Ms. G. Pavani Latha	
	15NM1A0510	Bantu Pavani		
	15NM1A0512	B Kokila Hima Chandana		
	15NM1A0504	Anga Monika Gayathri		
A-11	15NM1A0513	Behara Mounika	Mr. R. Siva Narayana	
	15NM1A0521	DanthuluriHarshitha		
	15NM1A0549	KedarisettiSrihitha		

	15NM1A0501	Aketi Mounika		
A-12	15NM1A0522	DasariKamaleshwari	Mrs. V.SreeLahari	
	15NM1A0547	K Venkata LakshmiSusmitha		
	15NM1A0539	Jayanti Sai Sirisha		
	15NM1A0545	Kamana Sirisha		
A-13	15NM1A0537	Gurla Lakshmi Lavanya	Mrs.N. Sowjanya	
	15NM1A0525	Doni Sharmila		
	15NM1A0560	Kovvuri Lalitha		
	15NM1A0535	Gundapu Sandhya Rani		
A-14	15NM1A0558	Korupolu Haritha	Ms. T.Padmavathy	
	15NM1A0528	GembaliSaisireesha		
	15NM1A0511	BattinaSuryamani		
A-15	15NM1A0548	Kari Likhitha	Mrs. K. Madhuri	
	15NM1A0541	KadhaVasavi		
	15NM1A0533	GullipalliJayamadhuri		

Table B.2.2.3.b: Project batch allocation with guide

B. Types and Relevance of the Projects and their Contribution towards Attainment of POs and PSOs (5)

Project is generally meant to facilitate students to think innovatively on the development of different software products or technologies in the field of Computer Science and Engineering. Students are expected to:

1. Perform a deep study of the topic assigned in light of the introductory report prepared in the seventh semester.
2. Analyze and finalize the approach to the problem.
3. Prepare steps for conducting the investigation, including teamwork.
4. Perform detailed analysis/ modeling/ simulation/ design/ problem solving/experiment as needed.
5. Develop a final product/ process, perform testing, and arrive at results and conclusions. If possible suggest future directions.

6. If desired prepare paper for presenting in the conference or publishing papers in journals.
7. Prepare documentation in the standard format that is required for evaluation by the Internal project Review Committee.

The students Projects have been classified into the types I) Application, II) Product, III) Research and IV) Review.

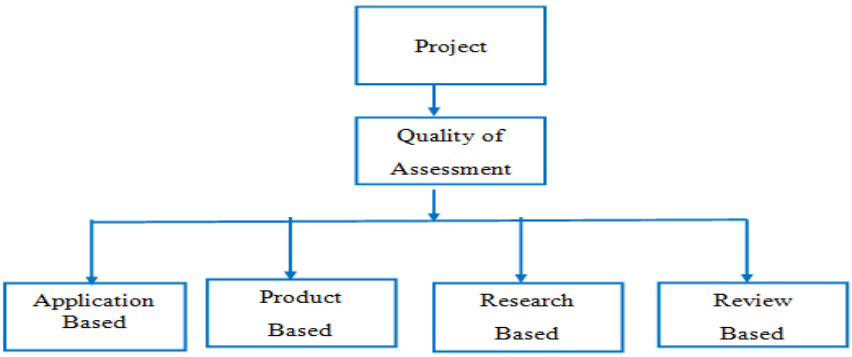


Figure B.2.2.3.b: Project Categorization

Projects Types	Number of projects carried out based on various categories		
	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
Application Based	18	12	12
Product Based	6	12	10
Research Based	10	10	12
Review Based	12	12	12

Table B.2.2.3.c: Type of Projects

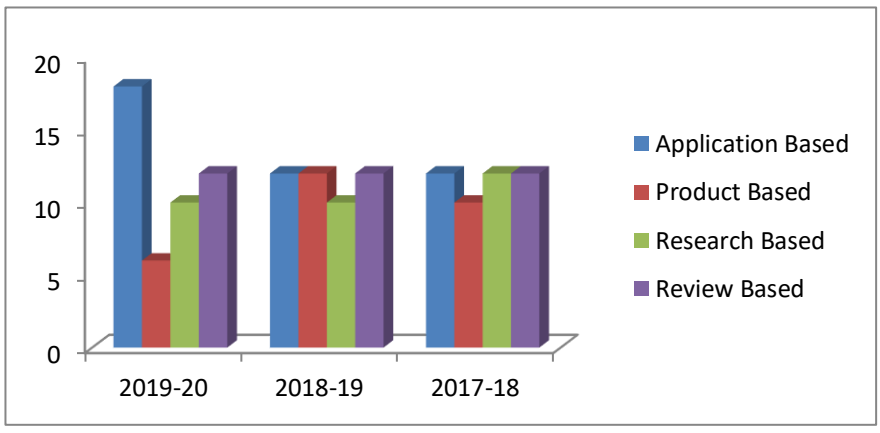


Figure B.2.2.3.c: Comparing the types of projects for the last three academic years

Projects Types	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
Application	3	2	3	3	2	3	3	3	3	2	2	3	3	2
Product based	3	3	3	3	3	2	1	2	3	2	1	3	3	2
Research based	3	3	3	3	3	2	2	2	3	2	1	3	2	3
Review Based	3	3	2	3	3	2	2	2	3	2	1	3	2	3

Table B.2.2.3.d: Mapping of Categorized Projects to Program Outcomes

The quality of student projects is ensured and assured through the achievement of the well-articulated course outcomes. All student project works consider the factors such as environment, safety, ethics, cost and standards. This is ensured through proper instruction by the project guides as well as through project reviews, where focus is on attainment of COs.

CO No.	Course Outcomes for Student Projects	Relevance to POs / PSOs	
		POs	PSOs
1	Identify, select and analyse an engineering problem to find an appropriate problem solving methodology by following engineering standards. (K4)	PO1-PO9, PO11, PO12	PSO1 PSO2
2	Make use of modern IT tools to implement the identified problem with ethics and Develop communication skills to present ideas clearly and coherently to specific audience in both the written and oral forms (K3)	PO1- PO7, PO9- PO12	PSO1 PSO2
3	Summarize final report using different visualization tools with good coordination among project members. (K5)	PO1- PO6, PO8- PO12	PSO1 PSO2
4	Propose future work to enhance the research in the selected domain and engage in life-long learning. (K6)	PO12	PSO1 PSO2

Table B.2.2.3.e: Mapping of project COs with POs and PSOs

Batch ID	Roll Number	Name of the Student	Allotted Guide	Title of Project	Type of Project	Relevance to POs and PSOs
A-1	15NM1A0559	Kotipalli Madhavi	Mr. S Ram Prasad Reddy	Students' technical performance and evaluation system	**Research**	PO1-PO6, PO8-PO12 PSO1, PSO2
	15NM1A0532	Gude Kalyani				
	15NM1A0515	Boida Padmavathi				
	15NM1A0526	Eada Mercy Joy				
A-2	15NM1A0503	AndavarapuDivya	Mr. R. Ravi	Honey with puzzle based stegos -data hiding using image steganography	**Application**	PO1-PO9, PO11, PO12 PSO1, PSO2
	15NM1A0516	Bonu Pavani				
	15NM1A0536	Gunna Moulika				
	15NM1A0505	Anjum Javeria				
A-3	15NM1A0556	KonagallaSushmitha	Mr. N K Santosh	Performance analysis of multiple linear regression and artificial neural networks on weather dataset	**Product**	PO1-PO7, PO9-PO12 PSO1,PSO2
	15NM1A0527	EdubilliNagajyothi				
	15NM1A0506	AnnuPravallika				
	15NM1A0540	JinagaHimabindu				
A-4	15NM1A0508	ArasavalliSyam Sirisha	Mr. I Raju	Performance comparison of artificial neural networks and k-nearest neighbor for bearing fault detection	**Application**	PO1-PO9, PO11, PO12 PSO1,PSO2
	15NM1A0546	KamarsuMadhumitha				
	15NM1A0514	BendalamMounica				
	15NM1A0543	Kakinada Likhitha				
A-5	15NM1A0502	AmulojuDivya Mounika	Mrs. Y VineelaSravya	An optimal approach of initial centroid selection for effective clustering	**Review**	PO1-PO12 PSO1,PSO2
	15NM1A0519	Chipurupalli G Soujanya				
	15NM1A0507	Anusha Karri				

	15NM1A0555	KolusuLahari				
A-6	15NM1A0550	KillanaCharishma	Ms. G Sandhya	A stegnographic approach for embedding an image using adaptive pixel pair matching	**Review**	PO1-PO12 PSO1,PSO2
	15NM1A0557	KondraNikitha				
	15NM1A0530	Gorli Sai Vandana				
	15NM1A0523	Dhanala Mounika				
A-7	15NM1A0517	Chapa Bhanu Sri	Mr. T Hari babu	A novel steganographic approach for hiding text in color images using hsi color model	**Application**	PO1-PO9, PO11, PO12 PSO1,PSO2
	15NM1A0509	Asi Kavya Reddy				
	15NM1A0544	KallepalliRishitha				
	15NM1A0524	Dittakavi S PragnaSree				
A-8	15NM1A0551	Koduru Teja Sree	Mr. Ch Venkata Bhikshapathi	REMOVAL OF IMAGE DE TROP USING DIFFUSION BASED INPAINTING	**Research**	PO1-PO6, PO8-PO12 PSO1,PSO2
	15NM1A0542	Kadiyam Sudha Lakshmi				
	15NM1A0552	Kollepara Pallavi				
	15NM1A0520	DakiSowjanya				
A-9	15NM1A0554	KolusuKiranmai	Mr. P Praveen kumar	HAND GESTURE RECOGNITION WITH DEEP LEARNING	**Research**	PO1-PO6, PO8-PO12 PSO1,PSO2
	15NM1A0538	Issai Bhargavi				
	15NM1A0529	Gorli Ramya				
	15NM1A0518	Chindada Lakshmi Sree				
A-10	15NM1A0531	G Sai Saranya	Ms. G Pavani Latha	IMPLEMENTAION OF DNA CRYPTOGRAPHY FOR CLOUD	**Application**	PO1-PO9, PO11, PO12
	15NM1A0510	Bantu Pavani				
	15NM1A0512	B Kokila Hima Chandana				

	15NM1A0504	Anga Monika Gayathri		COMPUTING		PSO1,PSO2
A-11	15NM1A0513	Behara Mounika	Mr. R. Siva Narayana	An improved algorithm for load balancing on servers	**Product**	PO1-PO7, PO9-PO12 PSO1,PSO2
	15NM1A0521	DanthuluriHarshitha				
	15NM1A0549	KedarisettiSrihitha				
	15NM1A0501	Aketi Mounika				
A-12	15NM1A0522	DasariKamaleshwari	Mrs. V SreeLahari	An efficient multi authority data access control using identity based signature schema in cloud computing	**Application**	PO1-PO9, PO11, PO12 PSO1,PSO2
	15NM1A0547	K Venkata Lakshmi Susmitha				
	15NM1A0539	Jayanti Sai Sirisha				
	15NM1A0545	Kamana Sirisha				
A-13	15NM1A0537	Gurla Lakshmi Lavanya	Mrs.N. Sowjanya	Intruder detection in data leakage using least significant bit	**Research**	PO1-PO6, PO8-PO12 PSO1,PSO2
	15NM1A0525	Doni Sharmila				
	15NM1A0560	Kovvuri Lalitha				
	15NM1A0535	Gundapu Sandhya Rani				
A-14	15NM1A0558	Korupolu Haritha	Ms. T Padmavathy	Centralized data of education	**Application**	PO1-PO9, PO11, PO12 PSO1,PSO2
	15NM1A0528	GembaliSaisireesha				
	15NM1A0511	Battina Suryamani				
A-15	15NM1A0548	Kari Likhitha	Mrs. K Madhuri	Privacy preserving of data transmission for cluster based wireless sensor network	**Research**	PO1-PO6, PO8-PO12 PSO1,PSO2
	15NM1A0541	KadhaVasavi				
	15NM1A0533	GullipalliJayamadhuri				

Table B.2.2.3.f: Projects contribution to attainment of PO and PSO

C. Process for Monitoring and Evaluation (5)

Project Monitoring

The progress of the project work is continuously monitored. Three Project Reviews are conducted to review the quality and progress of the project work. The panel of examiners called as Project Review Committee (PRC) consists of Project guide, Project coordinator, one senior faculty and the HoD. A Sample circular for Project Schedule is below.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT ASSESSMENT SCHEDULE

14.11.2019

All the final year students are here by informed to follow the schedule of Project Work reviews as given below. All the faculty members (Guides) are requested to coordinate and guide their respective project work batches accordingly. The review consists of the assessment of each student in the project batch by the project Guide by the PRC. The internal assessment will be done based on the performance in review. The scope of reviews and marks is given below.

S.No.	Review & Assessment (RA)	Scope	Schedule	Date(s)	Marks
1.	Project Initialization	a. Problem Identification b. Domain and technology c. Objective of project d. Submission of abstract e. Weekly plan of work	First two weeks after commencement of class work	**02.12.2019 to 04.12.2019**	
2.	First Review Assessment	a. Literature Survey b. Design c. Methodology and expected results	Next four weeks after Project Initialization	**30.12.2019 to 02.01.2020**	20
3.	Second Review Assessment	a. Analysis b. Implementation and Results-status c. Progress of work observation d. Project document status	Next four weeks after First RA	**10.02.2020 to 12.02.2020**	20
4.	Final Review Assessment	a. Implementation and Results b. Conclusion and future study c. Submission of project Document.	Next four weeks after Second RA	**09.03.2020 to 11.03.2020**	20

Signature of the HoD 14/11/19

Figure B.2.2.3.d: Project Schedule

Project Evaluation

It is anticipated to be a challenge to the rational and novel abilities of students. It gives students the prospect to synthesize and apply the knowledge and analytical skills learned in the different disciplines. The evaluation of project work shall be conducted at the end of the IV year. The

total marks allocated for this are 200, out of which 60 marks are allocated for Internal Evaluation and the remaining 140 marks are evaluated for External Evaluation. For internal evaluation, a committee is appointed which includes the Program Coordinator, the supervisor of the project, and a senior faculty member of the department. In a similar way for external evaluation to a committee is appointed the same as internal evaluation. In addition, an external examiner will be appointed by the affiliated university (JNTUK).

- The project review consists of assessment of PPT presentations by the individual students about their work done along with plan of action for the remaining work.
- Factors including, environment, safety, ethics, cost and applicable standards as well as team work and CO-PO/PSO mapping are duly considered in the assessment.
- Suggestions given by the panel or other faculty members are to be incorporated by the students which will be reviewed during the subsequent assessment.
- The evaluation format and the power point presentation made by students during the review assess both individual and team performance.
- Rubrics for Project work assessment has been incorporated

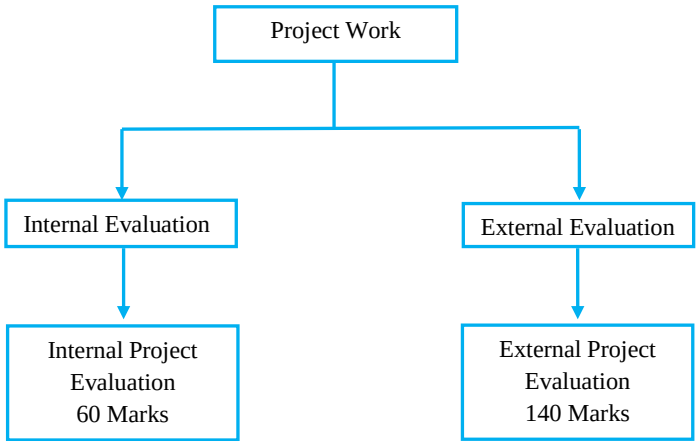


Figure B.2.2.3.e: Project Evaluation

a. Internal Evaluation: It is based on the basis of three seminars given by the individual team on the topic of their project.

b. External Evaluation: It is done at the end of the semester by the committee members.

A Sample student marks evaluation sheet in reviews is below:

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
PROJECT REVIEW-06-03-2020

Batch No	Regd. Number	Name of the Student	Student Signature
1			

Project Title	
Domain	

Literature survey	
Abstract	
Problem Definition/Objective specified	
Existing system and its drawbacks	
Proposed system and its advantages	
Software and hardware requirements	
Content Diagram, Design. Analysis	
Algorithms and Flowcharts	
Implementation & Results	

S.No	Name of Faculty	Comments/Suggestions

Panel Members Signatures

1. **2.** **3.**

4. **5.**

Signature of the HoD

Table B.2.2.3.g: Project Review

D. Process to assess Individual and team Performance (5)

All the projects are evaluated batch wise and individual. The grading rubric was included with the problem statement and evidence of group participation included in the grading procedure. To attain maximum marks continuous assessment is carried out by the guide. Weightage will be given to literature survey and presentation by batch and individual. Daily review of the progress of the group and the interaction between students was made by the guide to gain a qualitative measure of performance of the groups and individuals. Quantitative measures were determined with attendance and a group evaluation. At the end of the project every student was directed to fill an evaluation form where each student rated all the group members, including themselves, on the following questions.

Daily review of the progress of the group and the interaction between students was made by the guide to gain a qualitative measure of performance of the groups and individuals. Quantitative measures were determined with attendance and a group evaluation. At every review and at the end of the project every student was directed to an evaluation form where each student was rated on the following questions by the guide:

1. Rank the batch member's overall contribution to the project?
2. How much time or effort did the member contribute to the project?
3. What was the individual's willingness to work with other members of the group?
4. Did the member provide anything exceptional to the project?
5. How well did the member complete their assigned part of the project?
6. How well did the member understood all portions of the project?

Rubrics for PRC-1, PRC-2 and PRC-3:

Rubric sheet for PRC-1

Batch No.		**Class/Section**	
Date		**Max. Marks**	**20 Marks**
Project Title:			

Expectations	Exceeded (Professional Work) 20 M	Achieved (Medium Quality Work) 15 M	Attempted (Low/Poor Quality Work) 10 M
Goals	• Student addressed all areas of project proposal thoroughly, specifically meeting stated goals. • All standards mentioned in proposal, well addressed in project. • Project purpose made very clear. • Student exceeded goals of project	• Student mostly addressed areas of project proposal, specifically meeting stated goals. • Standards mentioned in proposal addressed.	• Project proposal is not well defined. • Standards mentioned in proposal not addressed or not well addressed.
Research	• All resources are properly documented with both citations and bibliography; notes are present. • Attention to quality of resources is apparent. • There is a variety of sources • People resources are a main part of the work produced. • The most recent and valuable sources used. • Student goes outside the Avalon environment to do research.	• Student documented most sources with citations and bibliography, kept notes. • Student demonstrated some attention given to quality of sources. • Bibliography showed variety of sources (with a limited use of internet sources). • Student connects with an expert (not including advisor or family).	• Student documented a few sources used and kept some notes. • Project shows a limited variety of sources. • Only internet sources are used.

Table B.2.2.3.h: Project Review Using Rubrics

Rubric sheet for PRC-2

Batch No.		**Class/Section**	
Date		**Max. Marks**	**20 Marks**
Project Title:			

Expectations	Exceeded (Professional Quality) 20 M	Achieved (Medium Quality Work) 15 M	Attempted (Low/Poor Quality Work) 10 M
Process and Improvement	• All parts of the project process are completed. • Student asked and answered outstanding questions. • Student sought out feedback, made appropriate improvements, and can explain creation process. • Student shows detailed understanding of information, demonstrates significant thoughtfulness (especially in the reflection), and uses information at a high level. • Reflection is thoroughly revised.	• Some parts of the project process are completed. • Student asked and answered questions. • Student recognized some needs for improvement and made some of them. • New information was gathered and some thoughtfulness shown in the reflection. • Reflection is revised.	• A few parts of the project process are completed. • Student asked and answered some questions. • Student did not seek out feedback for work. • Little new information is gathered but no thoughtfulness shown. • Reflection is unrevised and less than a page.
Project Management	• Student always on track met all deadlines. • Learning and time use are precisely documented. • Student effectively communicated project progress with advisor.	• Student stayed on track some of the time and met some deadlines. • Some of learning and time use is documented. • Student gave time to most parts of the project process.	• Student is infrequently on track with time but met final deadline. • Learning and time are poorly documented.

Table B.2.2.3.i: Project Review Using Rubrics

Rubric sheet for PRC-3

Batch No.		**Class/Section**	
Date		**Max. Marks**	**20 Marks**
Project Title:			

Expectations	Exceeded (Professional Quality) 20 M	Achieved (Medium Quality Work) 15 M	Attempted (Low/Poor Quality Work) 10 M
Quality of Project with complete execution with all test cases	• Professional quality product shows originality, creativity, and in-depth study. • Students generated their own idea. • There is proof of feedback from PRC. • Product is delivered to specific audience in the real world.	• Student adapted ideas from others for the product. • Product is intended for a specific audience.	• Poor work. • No personal interest in final project. • No demonstration • No clear awareness of the project.

Table B.2.2.3.j: Project Review Using Rubrics

E. Quality of Completed Projects/Working Prototypes (5)

The projects quality is assessed by the PRC and few projects are identified as best projects depending on the domains meeting industry 4.0. The emerging areas include machine learning, deep learning, block chain, big data analytics, cloud computing, computer vision and Internet of things. The details of the best three students Project work are given below:

Sl. No.	Project Title	Name	Guide Name	Relevance to POs &PSOs	Domain
1	Implementing an insurance application using Blockchain	Ms. V. Suma Ms. P. Geethanjali Ms. M. Nikhila Ms. P. Hema Bharathi	Dr. P. Vijaya Bharati	PO1-PO7, PO10-PO12 PSO1, PSO2	Blockchain
2	Fault diagnosis of rotating machine using one dimensional convolution neural networks	Ms. T. Sharmila Ms. P. Uma Padmaja Ms. M. Rajeswari Ms. N.V. Aruna Ramya	Mr. L. Bhupathi Rao	PO1-PO7, PO10-PO12 PSO1, PSO2	Deep Learning

3	Face detection and age recognition using viola jones algorithm	Ms. Y.L. Sowjanya Ms. R. Mounika Ms. M. Gayathri Ms. D. Ramya Sree	Mr. R. Ravi	PO1-PO7, PO10-PO12 PSO1, PSO2	Computer Vision

Table B.2.2.3.k: Best three projects in 2015 admitted batch

Sl. No.	Project Title	Name	Guide Name	Relevance to POs &PSOs	Domain
1	Abandoned bag detection in video surveillance using image processing	Ms.L.Hemalatha Ms.V.Renuka Ms.V.Pavani Ms.S.Santhoshi	Mr.I.Raju	PO1-PO7, PO10-PO12 PSO1, PSO2	Image Processing
2	A Real time face recognition system using deep learning	Ms.S.Puspalatha Ms.G.Sowmya Ms.N.Bhavani Ms.P.Sridharni	Mr.K.Mariyababu	PO1-PO7, PO10-PO12 PSO1, PSO2	Deep Learning
3	Secure evaluation of student data using map reduce in cloud	Ms.M.R.L.Bhavani Ms. RizwanaSherin Ms.M. LasyaRavali Ms.M. Mamata	Ms.D.Chandrika	PO1-PO7, PO10-PO12 PSO1, PSO2	Cloud Computing

Table B.2.2.3.l: Best three projects in 2014 Admitted Batch

Sl. No.	Project Title	Name	Guide Name	Relevance to POs &PSOs	Domain
1	Image segmentation using chan-vese model and particle swarm optimization to overcome image noise and intensity Inhomogeneity	Ms. K .Jhansi Ms. K .Swathi Ms. P. L.Vaibhavi Ms. P.Vineetha	Mr.Hari Jyothula	PO1-PO7, PO10-PO12 PSO1, PSO2	Image Processing
2	A prediction of student performance in online learning system using artificial neural networks	Ms. B.Keerthi Ms. A.Srimanju Ms. B .Devi Ms. D .Swetha	Mrs.NanditaBhanja Chaudhuri	PO1-PO7, PO10-PO12 PSO1, PSO2	Artificial Neural Networks
3	Sarcastic sentiment detection based on emoticons	Ms. P.Lalitha Ms. J.Kavitha Ms. V.Divya Ms. T.Vasavi	Mrs.V.UmaSankara Rao,	PO1-PO7, PO10-PO12 PSO1, PSO2	Machine Learning

Table B.2.2.3.m: Best three projects 2013-17 Admitted Batch

F.Evidences of Papers Published/Awards Received by Projects, etc.

The details of the papers published from the students Project work are given below for:

1. P.Soumya, N. Bhagya Lakshmi, P. Jyothi Priya, Y. Sriya published paper entitled "**An Efficient Transaction Memory Storage Management Model for Images**" in MuktShabd Journal in Volume IX Issue V, MAY/2020, Pages 1116-1118 (ISSN: 2347-3150).

2. G.Sailaja, B. Niharika, V. Mani Chandana, V.Bhavya Sri published paper entitled "**Distributed Metadata Management for Large Storage Systems using Hierarchical Bloom Filter Arrays**" in Parishodh Journal in Volume IX Issue III, MARCH/2020, Pages 7531-7535 (ISSN: 2347-6648).

3. Ch. Sri Lalitha Navya Bharathi, Ch.Ramya, K.Chinni, K.SaiPraneethapublished paper entitled "**RETRIEVAL OF FEATURED IMAGES USING FACE DETECTION** " inMuktShabd Journal in Volume IX Issue V, MAY/2020, Pages 2485-2495 (ISSN: 2347-3150).

4. U.Indhira, G.Kusuma, K. Hima Bindu**,** Ch. Sai Rakshithapublished paper entitled "**Smart Rendering News Article Reader**" in International Journal of Creative Research Thoughts in Volume 8, Issue 4 April 2020 Pages 2412-2421 (ISSN: 2320-2882).

5. S Sravya, P Yamini,YVasantha, P Pooja published paper entitled "**Fake News Detection and Comparison Using Machine Learning Algorithms**" in International Journal of Research and Analytical Reviews (IJRAR), April 2020, Volume 7, Issue 2(ISSN 2349-5138).

6. G Aishwarya, B Niharika, B Suryateja, B harika, published paper entitled "**Enhancing Advance Driver Assistence System By Detecting Weather Conditions Using Machine Learning**", in International Journal of Research and Analytical Reviews (IJRAR), April 2020, Volume 7, Issue 2(ISSN 2349-5138).

7. A.Soundarya , K.Bhavana , D.Yamuna , Ahmed Unnisapublished paper entitled "**Crack Detection on Concrete Surfaces using Image Processing**" in International Journal of Creative Research Thoughts (IJCRT) Journal in Volume VIII Issue V, MAY/2020, Pages 2153-2158 (ISSN: 2320-2882).

8. M.Samyukta , N.Srianjini , T.Kusuma Sarika , Y.Harithapublished paper entitled "**A Secure Approach for Communication in Mobile Adhoc Networks**" in Advanced Science Letters Journal in Volume 26 Issue V, MAY/2020, Pages 59-63 (ISSN: 1936-6612).

9.K. Yogitha, J Swetha, G. Praharsha, ChakkaSwapna published paper entitled "**Offline Handwritten Character Recognition using Neural Network**" in MuktShabd Journal in Volume IX Issue IV, APR/2020, Pages 3890-3902 (ISSN: 2347-3150).

10. K.Usha, K.SriHarsha,S.Rajeswari,B.v.s.s. Madhuri published paper entitled "**Pneumonia detection by X-ray images using Deep learning through CNN**" in journal of XIAN University of architecture and technology Volume Xll, Issue V, MAY/2020, Pages 1884-1892 (ISSN: 1006-7930).

11. G.Anusha,S.Girija, Rajeswari Lakshmi,G.Hyndavi published paper entitled" **Reducing the Routing overhead in secure mobile ADHOC networks**" in international journal of engineering research and technology, volume 9 issue 05,may / 2020, pages 411-414(ISSN: 2278-0181).

12.M. Keerthi, M. Kasturi, R. LochanaSaimamba, A. Anusha published paper "**Food Calorie Estimation and Auto Bill Generation for Grocery Products using YOLO object Detection**" in Journal of Xi'an University of Architecture & Technology in Volume XII, Issue V, MAY/2020 ,Pages 1393-1399 (ISSN:1006-7930)

13. T.Jaya,R. Sravanisandhya, M. Pravallika, S. Snigtha published paper entitled **"Sentimental Analysis on GST using Polarity Classification" in** International Research Journal in Volume VII Issue V,MAY/2020,Pages 1908-1912 (ISSN: 2395-3150).

14. P.VeenaVaibhavi, P.GunaVarshini, P.Ankitha, P.Lavanya, published paper entitled "**Redundancy Control Data -Driven Approach for Cluster-Based Wireless Sensor Networks"** in International journal of Computer Science and TechnologyinVol-11 Issue-5, April-June 2020,Page No: 36-40 (ISSN : 2229-4333).

15. B. Jhansi Lakshmi, M. Roopa Sri, B. Sai Keerthi, G. Nithisha, G.Prashiptha, published paper entitled "**Ensemble clustering using dbscanandhdbscan"** in Journal of xi'an university of architecture &technologyin Vol-12 Issue-5, June 2020,Page No: 2779-2788 (ISSN No : 1006-7930).

16. G. Mounika, K. Anjali Reddy, Durga Bhavani, B. Shivani published paper entitled "**Object Match Swapping Detection of Facial Landmarks Using Local-based Information**" in The International journal of analytical and experimental modal analysis in Volume XII, Issue IV, Apr-20, ISSN NO: 0886-9367.Page No : 398-407.

17. Atta Lavanya, Dasari Vandana Sri, Bera Sridevi, Jajula Poornima published paper entitled "**Age Estimation By Face Detection Using Convolution Neural Networks**" in Advanced Science Letters in Volume 26, Number 05, May-20, ISSN NO: 1936-7317,.Page No : 51-58.

18. AdariVindyaSree, SalapuDivya, Aratakatala Deepika Ratnanjali Devi, Manne Tirumala Akanksha published paper entitled **"A Novel Steganographic Technique to embed SST encrypted message using PGLM"** in MuktShabd Journal in Volume IX Issue V, MAY/2020, Pages 1864-1873 (ISSN: 2347-3150).

19. D.S. Haritha, K. VijayaLakshmi, D. Vasantha, P. Bhargavvipublished paper entitled "Hiding of CAPTCHA in a colour image using FNP Algorithm" in MuktShabd Journal in Volume IX Issue V, MAY/2020, Pages 1313-1322 (ISSN: 2347-3150).

20. Ch.Deekshitha, K. Amrutha Sarvani, K. Sadhana, K. Chaturyapublished paper entitled **"A three Layer privacy preserving storage scheme for providing security"** in International Journal of Creative Research Thoughts in Volume VIII, Issue V, MAY/2020, Pages 1561-1570 (ISSN: 2320-28820)

21. V. Pratyusha, V. Keerthi, T. Sahithya, P. Anisha, M. Roshini published paper entitled "**Replinish Security Through Carp Technology**" in International journal of analytical and experimental modal analysis, Volume XII, Issue IV, April/2020,ISSN NO:0886-9367, Pages 408-413.

22. D. Jhansi Reddy, K. Divya Sri, G. Deva Harshini, M. Nikitha published paper entitled "**Secure Key- Deduplication using Convergent Key Encryption**" in Parishodh Journal, Volume IX, Issue III, March/2020, and ISSN NO:2347-6648, Pages 5551-5563.

23. G N S Lalitya, G K Sowmya, I Bhagyalakshmi, B SoniyaShynepublished paper entitled "**Multimedia Content Protection System For Cloud Storage**" in International Journal Of Research And Analytical Reviews(IJRAR)in Volume VII Issue II, MAY/2020, Pages 234-240 ((E-ISSN 2348-1269, P- ISSN 2349-5138)).

24. P.Harshitha, P.Manasa, R.Sai Priya, M.Joshnapublished paper entitled "**Traffic Sign Detection using Convolutional Neural Networks**" in International Journal Of Computer Science and Technology(IJCST)in Volume XI Issue II, APRIL-JUNE/2020, Pages 33-35 ((ISSN : 0976-8491 (Online) | ISSN : 2229-4333 (Print)).

25. Devupalli Sirisha, Gannu Rupa SanthiSree, Karanam Mary Prathyusha, Ande Sowmya Sri published paper entitled "**Detection of Money Laundering in Online Social Networks**" in MuktShabd Journal in Volume IX , Issue V, MAY/2020, Pages 1116-1118 (ISSN: 2347-3150).

Impact Analysis:

- Innovative ideas from the students excelling in creativity
- Skills or abilities of students improved
- Knowledge on various aspects of software project management was developed
- Improved teamwork spirit
- Few projects are developed for environmental and societal benefits.
- Presentation and communication skills are enhanced
- Improved the team spirit and confidential levels

2.2.4 Initiatives Related to Industry Interaction (15)

(Give details of the industry involvement in the program such as industry-attached Laboratories, partial delivery of appropriate courses by industry experts etc. Mention the initiatives, implementation details and impact analysis)

An engineering student should be technically and globally competent to acquire the opportunities and should also attain the industrial needs. To meet these objectives, it is necessary to provide the students industry exposure and a platform to adapt the technological changes. The department frequently takes necessary measures to fulfill the goals. The Procedure for Industry Interaction is shown in Figure: B.2.2.4a as listed below:

- Initiate tasks by inviting the industrial members for valuable seminars and conference.
- Invite professional HRs and conducted an interaction session personally.
- Encourage the students for industrial visits & training program.
- Interaction with different esteemed industrial experts like APSSDIC, BARC, STEEL PLANT, SYMBIOSIS, BRAINO VISION, HPCL and etc.
- Conduct training sessions by industrial experts of latest technologies.
- Collect feedback from experts for progressive conduction of events.
- Feedback assessments are noted from students for further improvement.

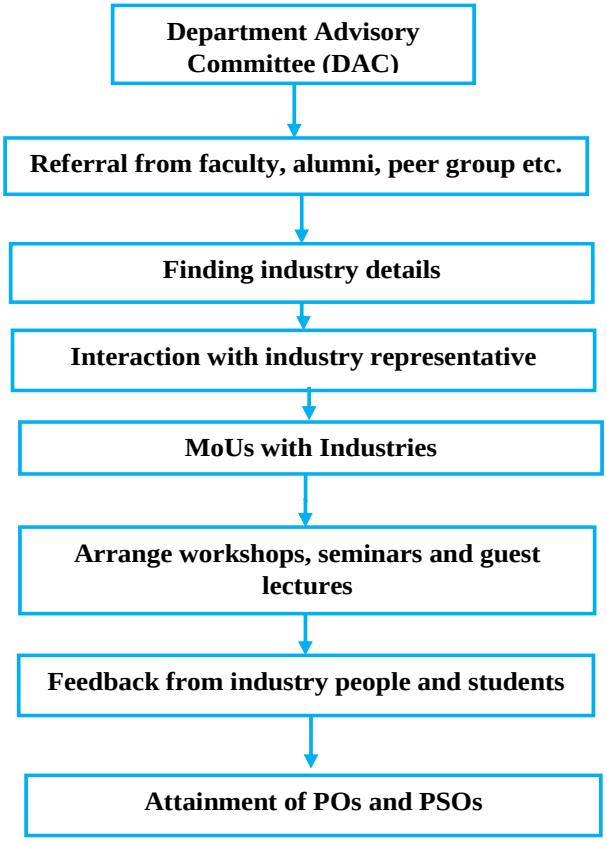


Figure B.2.2.4.a: Procedure for Industry Interaction

A. Industry Supported Laboratories (5)

With the advent of globalization and opening up of Indian economy to outside world, competition among industries has become stiff. To solve their engineering problems, they look up now to engineering institutions. Similarly, there is an urgent need to prepare engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies.

These objectives can only be achieved well by bridging the gap between industry and the academic institutions. Better interaction between technical institutions and industry is the need

of the hour. This will have great bearing on the engineering curriculum, exposure of engineering students to industrial atmosphere and subsequent placement of young graduating engineers in industries across the country. The labs established at Vignan's Institute of Engineering for Women are detailed below:

I. Andhra Pradesh State Skill Development Corporation (APSSDC) Lab

Andhra Pradesh State Skill Development Corporation (APSSDC) serves the task of providing skilled manpower as part of Government of Andhra Pradesh skill mission. AP government identified 100 institutes among 276 colleges across the state as their knowledge partners. APSSDC have established a Lab at Vignan's Institute of Engineering for Women to provide internships and training to students in the college. This will help in improving students' technical competency, soft skills and thus employability quotient.

Overview of APSSDC Lab:

The center has been set up as a step to foster innovation and help instill the startup and research culture in the students as well act as a catalyst of growth by making world class skilled professionals available to key growth sectors for the state and the country. The Lab is equipped with high end configured Acer Laptops in count of 36nos provide by APSSDC, and the licenses for the software are provided on Premise. The details of the lab are furnished in Table: B.2.2.4a and overview of lab in Figure: B.2.2.4b.

Infrastructure of the LAB	
Capacity of the lab	50 Laptops
No. of Laptops Installed	36 Laptops
Configuration	Intel Core i5 16GB RAM 500GB HDD
License type	On Premise
UPS	Yes
Cabin Type	Single/Partitioned

Table B.2.2.4.a: APSSDC lab details

Figure B.2.2.4.b: Overview of APSSDC Lab

Objectives of APSSDC Lab:

As per the MoU with VIEW, APSSDC lab will extend the benefits to help the students' in providing training for 1000 students per year at minimal costand created a platform to organize numerous workshops for students and faculty.The main objectives of the lab are:

- Promoting self-reliance
- Indigenization and technology upgrades
- Achieving economies of scale and Improve developing capabilities of students
- Export the talent in-house at a rapid pace to meet the demands of the industry
- Job assured training (Multi Skill Training Program)

Utilization of APSSDC Lab:

There are 15 certification programs carried in APSSDC Lab from the day of its establishment. The lab utilization details are listed in TableB.2.2.4. b.

Sl. No.	Certification Name	Date	% of Students	Relevance to POs and PSOs
1	Google Android Fundamentals	7-12-2017 to 9-12-2017	75%	PO1- PO5 PSO1, PSO2
2	Android Development Certification Phase-I	8-05-2018 to	30%	PO1- PO5 PSO1, PSO2

		14-05-2018		
3	IoT Certification	8-05-2018 to 14-05-2018	90%	PO1- PO5 PSO1, PSO2
4	SCALE	26-07-2018 to 28-07-2018	77%	PO1- PO5 PSO1,PSO2
5	Android Development Certification Phase-II	11-08-2018 to 16-08-2018	69%	PO1- PO5 PSO1,PSO2
6	Google Android Phase-I	22-08-2018 to 24-08-2018	45%	PO1- PO5 PSO1,PSO2
7	Google Android Phase-II	21-09-2018 to 23-09-2018	46%	PO1- PO5 PSO1,PSO2
8	Gamification with AR & VR	26-12-2018 to 09-01-2019	67%	PO1- PO5, PO9-PO12 PSO1,PSO2
9	IoT Program	01-06-2018	20%	PO1- PO5 PSO1,PSO2
10	Nano Degree Udacity	18-01-2019 to 22-01-2019	70%	PO1- PO5 PSO1, PSO2
11	Web Development using Python	19-08-2019 to 24-08-2019	100%	PO1- PO5 PSO1,PSO2
12	MSTP Workshop	28-02-2020	80%	PO10 PSO1
13	Google Android Developer Fundamental-phase-I	05-03-2020 to 07-03-2020	48%	PO1- PO5 PSO1,PSO2
14	Google Android Developer Fundamental-phase-II	11-03-2020 to 14-03-2020	49%	PO1- PO5 PSO1,PSO2
15	Workshop on Progressive Webapps	06-03-2020 to 07-03-2020	100%	PO1- PO5 PSO1,PSO2

Table B.2.2.4.b: Utilization details of APSSDC Lab

Effectiveness of APSSDC Lab:

- Students are benefitted with hands on experienced training workshops, projects and Nano Degrees of Udacity and Coursera.

- Training programs provide a great opportunity for students to expand their knowledge base and increase their efficiency and productivity.
- Students use their training to keep up with the latest advancements in technology.
- Training and development can help students to perform better in the campus placements as they become more skilled than before.
- Training can increase the quality of the student.
- Students work independently and require less supervision than before.
- Students can use their knowledge from the training to do projects and help other students.
- Students perform better with greater efficiency than before.
- More confidence is built among students and performed well.

II. Internet of Things (IoT)Lab

Texas Instruments, Bangalore conducted a national level DrishTI online exam to our students to test their technical competency. Around 2300 students participated in this exam and more than 90% of them are qualified. As a token appreciation, Texas Instruments sponsored Teaching labs by procuring latest hardware related to IoT and microcontrollers.

The students of Computer Science Engineering enhance their knowledge towards developing of IoT applications by gaining knowledge on IoT domain within the campus and to stay ahead of their peers. IoT test bed is an open and developing ecosystem of edge devices, communication protocols, cloud-based platforms and application with a focus on cost-effective IoT technologies.

Overview of the Lab:

The lab is being utilized for implementing IoT based projects for real time applications. The lab is equipped with hardware kits and software required to carry out simulations. The lab is also equipped with IoT Development board self starting learning kits and various sensors to make the students practically find a solution to real-time issues. The following are the Kits Sponsored by TI kits from STEPS Knowledge services Pvt. ltd will be used by Department of CSE for academic purpose:

Sl. No	Description of the hardware	Quantity
1	CC3200 Simple Link Wi-Fi Launch Pad	15
2	EK-TM4C729EXL	2
3	MSP 430 EXP G5 Launch Pad	8
4	RF Booster Pack CC110L	4
5	37 Sensors Kit	1
6	BBONE-BLACK-WIRELESS	2
7	MSP 430 EXP G5 Launch Pad	30
8	MSP-EXP 430F5529 Experimenter Board	2
9	RF Booster Pack CC110L	5
10	STEPS Experimenter Pack for MSP 430	10
11	MSP-EXP43OF5529LP	10
12	BOOST-DAC8568	2

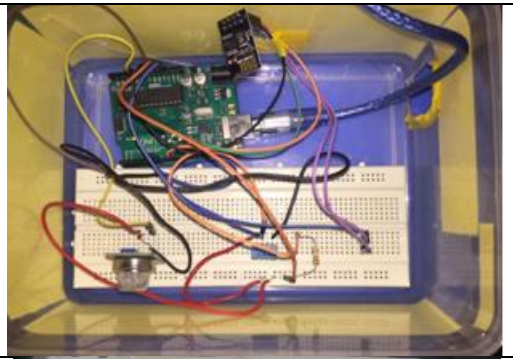
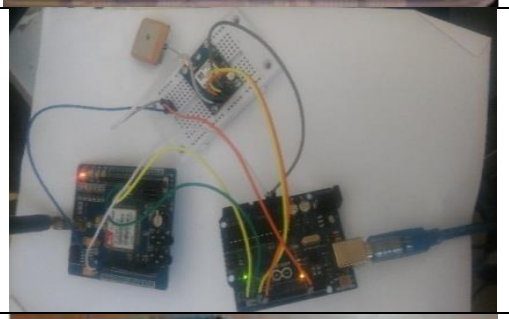
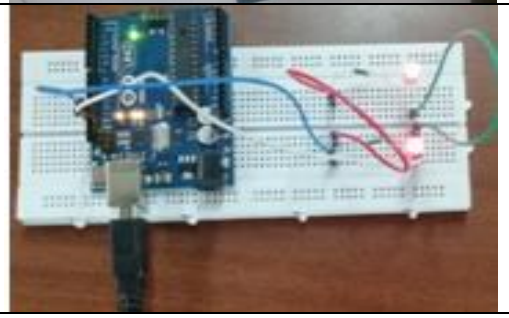
Table B.2.2.4.c: List of Hardware available in the IoT Lab

Objectives of the Lab:

- IoT lab is used to design and develop IoT based real-time projects and supporting in developing research activities.
- Develop projects that are cost effective and socially relevant.
- Students and faculty can utilize IoT test bed available in IoT lab to get hands-on exposure on IoT platform.
- To develop trained manpower through student projects in the field of IoT based application development.

Utilization of IoT Lab:

Students developed IoT based projects like Health Monitoring System, Smart Home Safety System and Smart Irrigation etc., to participate in various technical events. The projects developed in the IoT lab are listed in Table: B.2.2.4.d.

Sl. No.	Student details	Project Title	Description	Prototype	Relevance to POs and PSOs
1.	Students of IV B Tech II Sem (2017-18) developed this project as a part for Technical expo. 14NM1A0516- Ch.Karsihma 14NM1A0535- G.Lavanya 14NM1A0513-Ch.Anitha 14NM1A0529- D. Sneha	Smart Home Safety System	This model is used to identify gas leakage like LPG in domestic purpose. It sends an alarm and message to the registered mobile number whenever it senses gas leakage by using MQ2 sensor		PO1-PO12 PSO1 PSO2
2	Students of IV B Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0508-A.S.Sirisha 15NM1A0546-K.Madhumitha 15NM1A0514-B.Mounika 15NM1A0543-K.Likitha	Rakshana: Women Safety Alarm buzzer system using GPS.	This device raises alarm and sends message to nearby police station with location when the person press the button in need. In emergency, by pressing the button women can get quick assistance.		PO1-PO12 PSO1 PSO2
3	Students of IV B Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0570-M. Neelima 15NM1A05B8- V.Sharmila 15NM1A0571- M. Kusuma 15NM1A0562- K. Supriya	Automatic Street Light Control System	These street lights are used on road sides which glow when any object is detected in its proximity range and automatically turns off when the object passes away.		PO1-PO12 PSO1 PSO2

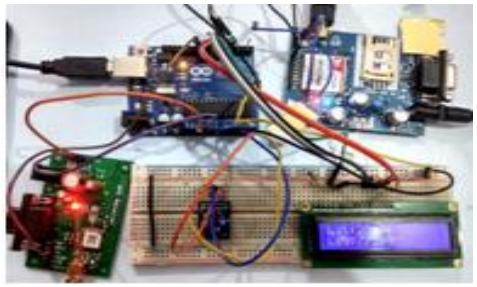
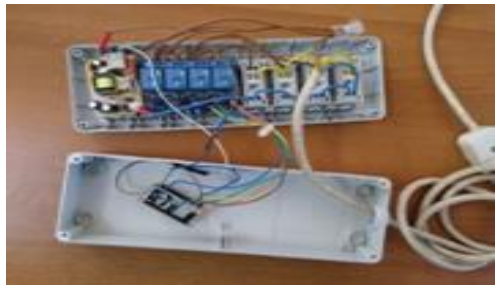
4	Students of IV B Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0578-P. Sairajeevi 15NM1A0566- M. Sushmitha 15NM1A05A2- Sk. Karishma 15NM1A0569- M. Pavani	IoT Based Air Pollution Monitoring System Using Arduino	This prototype is used to find the pollution in air using IoT. A threshold value is fixed and the buzzer produces sound when the sensed air has PPM value more than the threshold and sends an email to the respective authority.		PO1-PO12 PSO1 PSO2
5	Students of IV B Tech II Sem (2018-19) developed this prototype as their project work 16NM5A0504- G. Lakshmi 16NM1A05G1- K. Katyayani 16NM1A05H7- M.T.Akanksa 16NM1A05G3- K.DivyaSri	Road Accident Alert System .	This prototype is used to send information to the nearest police station whenever an accident happens. This prototype is designed to send the information by message using GSM and accident place by using GPS for quick rescue and saving lives		PO1-PO12 PSO1 PSO2
6	Students of IV B Tech II Sem (2018-19) developed this prototype as their project work IV B Tech II Sem (2018-19) 15NM1A05E0- K. Gnanaani 16NM5A0509-P. N. Ratnm 15NM1A05C8-D. Geethika 15NM1A05F4- O.M. Keerthi	Industrial Smart Power Strip .	This prototype is used to maintain the switches or controls virtually by using Internet. The controls will be available in the form of mobile application which can be controlled at any time. To make the control ON and OFF on demand, this prototype can be used.		PO1-PO12 PSO1 PSO2

Table B.2.2.4.d: Projects developed by students in Internet of Things (IoT) Lab

Effectiveness of IoT Lab:

- IoT lab helped students to quickly learn concepts in IoT.
- The learning is enjoyable as they effectively used various online discussion forums and tutorials.
- Although the projects suggested are of very basic nature but carrying out these give the confidence to take up difficult ones.
- The IoT laboratory is ideal as the prerequisite courses like microprocessors/micro controllers are not included in the CSE curriculum.
- Students develop keen interest to explore various other interdisciplinary courses due to involvement of several varied technologies in IoT.
- Learning of students as a team improved with enhanced inter personnel communication skill.
- Professional ethics and ample opportunity for modern tool usage was improved as students use open source software and resources.

B. Industry involvement in the program design and partial delivery of any regular courses to students (5)

- The Department Advisory Committee (DAC) consults experts from the Industry and Professors from JNTUK and Andhra University to always improve the students in all aspects.
- In addition, senior engineers from the industry are also consulted for upgrading the students to latest technologies.
- Workshops, Seminars and Guest Lectures are arranged to improve the student's skills.
- Involving industry experts in partial delivery of any regular courses for CSE students.
- MoUs with industries facilitates both the students and faculty an opportunity to understand the concepts in a better way. MOU's was done with industries to emphasize on:
    - Internships
    - Project Works for Students
    - Industrial Visits

- Students specific training
- Faculty Development Programs

The List of Technical talks by Industry Experts is:

Sl. No.	Topic of Seminar/ Guest Lecture/ Workshop	Resource Person with Designation	Date(s)	No. of Students Participated	Relevance to POs and PSOs
1	Progressive Web Apps	Mr.B.V.Shiva Prasad, Trainers, APSSDC	06-03-2020 to 07-03-2020	125	PO5, PO9, PO12
2	Machine Learning Using Python	Mr. Rushikesh, Team Leader, ROBOSOL AND AAKAR	06-03-2020 to 07-03-2020	72	PO5, PO9, PO12
3	GOOGLE Android Developer Fundamental Workshop Phase-I	Mr. Lokesh U, Mr. Gopi M, Trainers, APSSDC, Trainers, APSSDC	05-03-2020 to 07-03-2020	60	PO5, PO9, PO12
4	Robotics	Deepak Mourya Jayesh Sharma, Team Leader, ROBOSOL AND AAKAR	24-12-2019 to 26-12-2019	120	PO5, PO9, PO11, PO12
5	MSTP	Mr. P. Alluru Raju, Trainers, APSSDC	13-11-2019	70	PO10
6	Gamification With AR & VR – Buildbox	Mr.T.Ravi Kishore, Trainers, APSSDC	18-09-2019	80	PO5, PO9, PO12
5	Web Development with Python	Mr. R. Raju, Trainers, APSSDC	19-08-2019 to 26-08-2019	17	PO5, PO9, PO12
6	Importance of IoT in Marine Engineering	Mr. S.K. Dubey, CEO, STBL Projects Pvt. Ltd	11-01-2019	120	PO12
7	Bridging The Gap Between the Students And Academia	Mr. T. Suresh, Team Leader, Wipro Technologies	10- 01-2019	150	PO5, PO9, PO12
8	Udacity Nano Degree Program	Mr. I. Ravi, Trainer,	24-10-2018 to 26-10-2018	9	PO5, PO9, PO12

	for Android Developer	APSSDC			
9	BOOTSTRAP	Mr.SyedGhouse, Trainer, Brain – O – Vision, Hyderabad	17-09-2018	56	PO5, PO9
10	AP Cloud Mean Stack And Cloud Developer	Mr. G. Sreenivas, CEO, Miracle Software Solutions	11-08-2018 to 16-08-2018	69	PO5, PO9, PO12
11	Cyber Security	Mr.S.ChandraMouli, Project Manaber, Bank of America, Hyderabad.	10-01-2018	70	PO5, PO9, PO12
12	AWS Skill guru workshop	Mr.Sree Kiran Babu, Trainer, APSSDC	30-31 May 2018	33	PO5, PO9, PO12

Table B.2.2.4.e: List of Technical talks by resource persons from Industry

In order to make our students industry ready, we take the support of various eminent industrialists. They are part of our institute governing body in decision making and framing policies. With the inputs from these members, we encourage our students to take part in industrial tours and training programs. The following is the list of various industrialists who are part of our institute governing body.

List of Industrialists associated with our institute:

Sl. No.	Name of the Industrialist with designation	Industry	Association with our Institute
1	**Dr. C.D. Malleswar** Former Director-NSTL, DRDO Dr Raja Ramanna Distinguished Fellow	Naval Science & Technological Laboratory (DRDO)	Chairman of Governing Body from June 2017 to October 2019
2	**Dr V.Bhujanga Rao** ISRO Chair Professor Former DG-DRDO- Delhi. Former Director-NSTL Vizag	National Institute of Advances Studies, IISc Campus, Bangalore.	Chairman of Governing Body from November 2019
3	**Dr. V. ViziaSaradhi,** Former Director	HPCL, Mumbai.	Governing Body Trust Member from June 2017 to October 2019
4	**Sri.Venkata Rayulu Bonam,** Delivery Project Executive	IBM India (P) Ltd. Hyderabad	Governing Body Member from June 2017

5	**Mr.Srikanth Nandigam** Head Project Manager	Excel Global Solutions InfoTech Pvt. Ltd. VSEZ, Visakhapatnam	Governing Body Member from June 2017 to October 2019
6	**Dr. B.Subba Rao** Programe Director,	SAMEER-Centre for Electromagnetic Environmental Effects, Ministry of Electronics & Information Technology, Visakhapatnam	Governing Body Member from June 2017
7	**Dr.Archana Sharma** Outstanding Scientist Head, PP & EMD	Bhabha Atomic Research Centre (BARC), Mumbai.	Governing Body Trust Member from November 2019
8	**Dr.Rishi Verma** Scientist-G	BARC, Atchutapuram Visakhapatnam.	Governing Body Member from November 2019
9	**Mr.Suresh Kumar Tankala** Lead Consultant	Wipro Limited, Visakhapatnam	Governing Body Member from November 2019

Table B.2.2.4.f: List of Industrialists associated with our institute

C. Impact analysis of industry institute interaction and actions taken thereof (5)

The Industry-Institute Interaction should be designed to run longer period for preparing the students, the manpower of world class in the field of science and technology by inculcating the various skills required by the industry, thereby contributing to the economic and social development at large.

Industry institute interaction is effected through:

i. Guest lectures by industry experts
ii. Membership of industry experts in Institute Governing body
iii. Membership of industry experts in Department Advisory Committee
iv. Industrial visits by students
v. Student Project works with involvement of industry
vi. Workshops /seminars /guest lecturers make the students gain knowledge on latest technologies and tools and they and practices.
vii. Industry built Labs with modern methodologies provides a practical environment to implement creativity in project work

Impact analysis:

- Establishment of Industry-Institute Partnership /interaction Cell.
- Organizing Workshops, conferences and symposia with joint participation of the faculty and the industries with students.
- Encouraging experts from industry to visit the college to deliver lectures.
- Participation of experts from industry in curriculum development, the same intimated to JNTUK.
- Professional consultancy by the faculty to industries.
- Joint research programmes and field studies by faculty and people from industries.
- Visits of faculty to industry for study and discussions or delivering lectures on subjects of mutual interest.
- Visits of students to industry in upgrading their skills.
- Visits of industry executives and practicing engineers to the Institute for seeing research work and laboratories, discussions and delivering lectures on industrial practices, trends and experiences.
- Memoranda of Understanding between the Institute and industries to bring the two sides emotionally and strategically closer.
- Human resource development programmes by the faculty for practicing engineers.
- B.Tech. projects work in industries under joint guidance of the faculty and experts from industry.
- Short-term assignment to students/faculty members in industries.
- Visiting faculty/professors from industries.
- Professorial Chairs sponsored by industries at the Institute.
- R&D Laboratories sponsored by industries at the Institute.
- Scholarships/fellowships instituted by industries at the Institute for students.
- Practical training of students in industries.

The list of MOUs with various companies is listed below in Table:B.2.2.4g.

S.No.	MoU with companies	MOU with Institution	Description	Date of MoU
1.	Techno Soft Solutions (TSS), Visakhapatnam	VIEW	Imparting training courses	09.01.2012
2.	Globarena Technologies (P) Ltd., Hyderabad	JNTUK	Centre of Excellence for e-resource Development and Deployment Project(CoEeRD)	06.03.2012
3.	Randstad India Limited, Chennai	VIEW	Providing Job placements	05.04.2013
4.	COIGNEDU & IT Services(P) Ltd., Hyderabad	VIEW	Imparting Training courses	03.07.2014
5.	M/s. CADD Box solutions, Visakhapatnam	VIEW	Conducting CAD Training& Certification	19.07.2014
6.	Smart & Soft solutions, Visakhapatnam	VIEW	Certification Training of Microsoft IT Courses	23.07.2014
7.	Focus Academy for Career Enhancement (FACE), Coimbatore	VIEW	IBM Specific aptitude cracker programme	02.12.2014
8.	Focus Academy for Career Enhancement (FACE), Coimbatore	VIEW	Campus placement Cracker programme	14.02.2015
9.	Focus Academy for Career Enhancement (FACE),	VIEW	Company Specific aptitude cracker programme	06.08.2015
10.	M/s.GRAFX IT Solutions Pvt. Ltd.,	VIEW	Skill Development Programme	27.08.2015
11.	Leadership 'Foundation', Srikakulam.	VIEW	Technology incubation Hub	05.01.2016
12.	Talentio solutions India Pvt. Ltd., Hyderabad.	VIEW	Skill Enhancement Programme	17.02.2016
13.	Focus Academy for Career Enhancement (FACE), Coimbatore	VIEW	WIZARD IT	03.05.2016
14.	Omni RK Super Specialty Hospital	VIEW	Health Checkup/Treatment	29.06.2017
15	Confederation of Indian Industry (CII), Visakhapatnam	VIEW	Influence inspire and motivation of Students	25.07.2017
16	APSSDC, Vijayawada	VIEW	To make qualitative improvements in imparting Technical Skills.	25.07.2017
17	Brain O Vision	VIEW	Provides technical training for executing outsourced projects.	02.01.2018

18	Satvat Infosol Pvt. Ltd.,	VIEW	Infrastructure cum Facility	27.09.2018
19	APSSDC, CM's Skill Excellence Center	VIEW	Implement Structured and pragmatic solutions towards skills development	29.07.2019
20	NSE(NSEIT Limited), Mumbai	VIEW	Online Examination Service Provide Centre	28.08.2019
21	NIT, Warangal Electronics and ICT Academy	VIEW	Organizes various programs to improve the quality of teaching quality of Education	30.08.2019
22	PARAMARSH Scheme from UGC	VIEW	Quality Education to the next generation	26.08.2019

Table B.2.2.4.g: List of MOUs between VIEW and various companies

2.2.5 Initiatives Related to Industry Internship/ Summer Training (15)

(Mention the initiatives, implementation details and impact analysis)

Assessment of PO & PSO attainment for the current academic year, feedback analysis from alumni and industrial experts helps us to improve the industry interaction process for the students. Every year the students are motivated to undergo industrial/internship training during semester break for a period of at least two weeks to get industrial exposure. The students with the support of the department approach the industries with a request for seeking training. The acknowledgment received by the industry will be forwarded to head of the institute to get permission to undergo training. A report on the work carried out during the tenure will be provided by the students to the department after successful completion of training. Assessment on training is conducted either by a seminar or by viva-voce. The feedback analysis on the training is collected for taking necessary measures to improve the process.

A. Industrial training /tours for students (3)

Industrial visit is a self interest and important in a career for a pursuing engineering degree students. It is a part of our institute schedule, mostly seen in professional degree courses. The main purpose of industrial visit is to understand the internal working process and ethics for the students practically. The department level of our institution had figure-out that the theoretical concept is not sufficient for a professional career, thus industrial visit/training is more important

for practical knowledge to the students. This industrial visit/training provides an opportunity to gain the concepts practically via interaction, working process.

1. Andhra Pradesh MedTech Zone(AMTZ) - Visakhapatnam

Overview:

Andhra Pradesh MedTech Zone Limited (popularly known as AMTZ**)** is an enterprise under the Government of Andhra Pradesh, a 270 Acre zone, dedicated for Medical Device Manufacturing. The objective behind this **'**One-Stop- Solution**'** is not only to reduce the cost of manufacturing up to 40% or to just simplify the end-to- end operations but also to reduce the import dependency, which is presently around 75%.

Type of industry:

It offers 3D printing, designing and prototype services.

Planned or Non planned activity:

It is a planned activity on 02-08-2019 seeking all the required permissions before the visit. Three faculties have accompanied the students.

Objectives:

- To understand practical challenges in the fields of 3D printing.
- To get updated on 3D printing in various real-time applications.

2. Tech-Mahindra Limited - Visakhapatnam

Overview:

Tech Mahindra Limited is an Indian multinational technology company, providing information technology (IT) and business process outsourcing (BPO) services. The company was ranked #5 in India's IT firms and overall #47 in Fortune India 500 list for 2019.Tech Mahindra has 973 active clients as of April 2020.

Type of industry:

Tech Mahindra is a software industry that includes businesses of development, maintenance and publication of software that are using different business models.

Planned or Non planned activity*:*

It is a planned activity on 15-12-2018 seeking all the required permissions before the visit. Five faculties have accompanied the students.

Objectives:

- To provide students an insight regarding internal working of the company.
- To understand that theoretical knowledge is not enough for a successful professional career

3. Symbiosys Technologies - Visakhapatnam

Overview:

Symbiosys is a leading CG/2D animation and VFX studio based in India having skillfully executed several international projects for marquee clients carving a strong footprint in the global animation industry. It is a lead by a highly experienced management team with a skilled and enthusiastic team of animators with sales and client management office in USA.

Type of industry:

It undertakes animation services, co productions and also receives concepts from creators for co-development.

Planned or Non planned activity:

It is a planned activity on 06-07-2017 seeking all the required permissions before the visit. Three faculties have accompanied the students.

Objectives:

- To understand the designing of concept art, characters, locations, story-boards, pre-viz, layouts and matte paint.
- To gain awareness on staging/blocking, rig animation, traditional animation, IB & CU and 2D Comp.
- To get the picture of 3D modeling/texturing/rigging, 3D layout & animation, lighting, SFX-simulations and rendering & comp.
- To familiarize about VFX & Stereo Roto/Paint, Match Moving, Environmental Effects, Composting, Stereo Composting, Motion Graphics and Rotomation.

The following table describes list of Industrial Visits:

Industrial Visit Details			
Date of Visit	**Place of visit**	**Number of students**	**Faculty Coordinator**
02-08-2019	Andhra Pradesh Med Tech Zone – Visakhapatnam	90	Mr. B.A. Ganesh
15-12-2018	Tech-Mahindra Limited- Visakhapatnam	130	Mr. I. Raju
06-07-2017	Symbiosis Technologies - Visakhapatnam	120	Mr. A.N. Suresh

Table B.2.2.5.a: Industrial Visit Details

Figure B.2.2.5.a: Industrial Visits at AMTZ

Figure B.2.2.5.b: Industrial Visits at Symbiosis Technologies

Figure B.2.2.5.c: Industrial Visits at Tech Mahindra

B. Industrial / internship/summer training of more than two weeks and post training assessment (4)

The students of CSE program are motivated to go for internship at various industries in the summer break of their of VI semester. The institute supports students by sanctioning permission to visit industries and gain practical knowledge. The students undergo internship training for a period of one week to a maximum of 20 days. A report on training undergone by the students as a team or as an individual is to be submitted after successful completion of their internship. The training helps them to think innovatively in solving real time problems and implement as working models. The details of internship training are listed below:

Academic Year	Organization	No. of Students
2017-18	Steel Plant, Visakhapatnam	42
2017-18	BSNL, O/o GMTD, Daba Gardens, Visakhapatnam	2
2017-18	HPVP Unit, BHEL, Visakhapatnam	1
2017-18	BHEL, Visakhapatnam	5
2018-19	East Coast Railway, Bhubaneswar.	3
2018-19	Atom Software Solutions	9
2018-19	Steel Plant, Visakhapatnam	20
2018-19	Hindustan Shipyard Limited	11
2018-19	BHEL, Visakhapatnam	1
2018-19	BSNL, Visakhapatnam.	12
2018-19	RISPL, Visakhapatnam	2
2019-20	MAQ Technologies	1
2019-20	Amazon	1
2019-20	Internshala	3
2019-20	OSOS Pvt. Ltd	1
2019-20	APSSDC	1
2019-20	HMI Robo Coupler Engineering Services	8
2019-20	Atom Software Solutions	1
2019-20	Kalakar, Sugyan Technologies	1
2019-20	Spark Foundation Osos Technology	1
2019-20	Irsc- Indian Road Safety Campaign	1
2019-20	IIT Bombay Kalakar	1
2019-20	Fluentgrid Limited	1
2019-20	Appleton Innovations	1
2019-20	Smart Bridge In Collaboration With IBM	1
2019-20	Appleton Innovations	1
2019-20	Tocmoc Solutions	4
2019-20	Smart Bridge Collaborated With IBM Elite Techno Gropus	1
2019-20	Engineering Gaints	1
2019-20	Robocoupler Techno Solutions	1

2019-20	Engineers Hub	1
2019-20	Coad Beat	1
2019-20	Tbi-Bits Pilani	1
2019-20	Amazon Web Services	1
2019-20	Mivo Software Technology Solutions Pvt. Ltd.	1

Table B.2.2.5.b: Details of Industrial / internship/summer training

Students Internship Details for the year 2019-20

Sl. No.	Roll No.	Name	Name of the Industry	Date/Duration
1	16NM1A0504	Ms. A. Sai Vaishnavi	MAQ Technologies	2 Weeks
2	16NM1A0512	Ms. B. Niharika	Amazon	2 Months
3	17NM1A0587	Ms.P. Harshita	Internshala	2 Months
4	17NM1A0567	Ms.K. Prathyusha	Internshala	2 Months
5	17NM1A05A3	Ms.G. Praharsha	Internshala	2 Months
6	17NM1A0596	Ms.P. Annapoorna	OSOS Pvt. Ltd	2 Months
7	17NM1A0568	Ms.Kalaga Sahitya	APSSDC	1 Month
8	17NM1A0569	Ms.Kalepu Sreeja	HMI Robo Coupler Engineering Services	2 Weeks
9	17NM1A0574	Ms.Kammili Tanuja	HMI Robo Coupler Engineering Services	2 Weeks
10	17NM1A0579	Ms.KarakaJyoshna	HMI Robo Coupler Engineering Services	2 Weeks
11	17NM1A0581	Ms.Kola Lavanya	Atom Software Solutions	2 Weeks
12	17NM1A0589	Ms.Kovela Hema Sri	HMI Robo Coupler And Engineering Services	2 Weeks
13	17NM1A0591	Ms.KundrapuDivya	HMI Engineering Services Robo Coupler Solutions	2 Weeks
14	17NM1A0594	Ms.Lanka Sruthi	Kalakar, Sugyan Technologies	2 Months
15	17NM1A0596	Ms.Maddi Annapurna	Spark Foundation OSOS Technology	2 Months

16	17NM1A0599	Ms. Madimi. Deborah Zenifer	HMI Engineering Services Robo Coupler Solutions	2 Weeks
17	17NM1A05A3	Ms. Mojjada Uma Maheswari	HMI Engineering Services Robo Coupler Solutions	2 Weeks
18	17NM1A05B5	Ms.NukalaSruthii	Irsc- Indian Road Safety Campaign	2 Months
19	17NM1A05B6	Ms.Nupur Das	IIT Bombay Kalakar	2 Months
20	17NM1A05B8	Ms.Palem Sushma	Internshala	2 Weeks
21	17NM1A05C0	Ms.Pamula Gayathri	HMI Services	1 Week
22	17NM1A05C2	Ms.ParicharlaLahari	Fluentgrid Limited	1 Month
23	17NM1A05C6	Ms.Pentakota Venkata Satya Likhitha	Appleton Innovations	2 Months
24	17NM1A05C7	Ms.Petakamsetty Sri Jyothi Meghana	Smart Bridge In Collaboration With IBM	2 Months
25	17NM1A05D4	Ms.Pusapati Revathi	Appleton Innovations	2 Months
26	17NM1A05D7	Ms.Ramadalai Keerthi	Tocmoc Solutions	2 Weeks
27	17NM1A05E3	Ms.SaiRakshitha Pulagala	1.Smart Bridge Collaborated With IBM 2. Elite Techno Gropus	2 Months
28	17NM1A05E7	Ms.Sanapathi Sravani	1.Engineering Gaints 2. Robocoupler Techno Solutions	2 Months
29	17NM1A05E8	Ms.Sappa Sandhyarani	Engineers Hub	1 Month
30	17NM1A05H1	Ms.Velaga Devi Lakshmi Rajeswari	Tocmoc Solutions	2 Weeks
31	17NM1AO5H4	Ms.Vurukuti.Mounica	Tocmoc Solutions	2 Weeks
32	17NM1A05C2	Ms.ParicharlaLahari	1. Coad Beat 2. Tbi-Bits Pilani 3. Amazon Web Services	One Month
33	17NM1A05C2	Ms.Paricharla Lahari	Mivo Software Technology Solutions Private Limited	2 Weeks
34	17NM1A05D2	Ms.Pulidindi Krishna Priya	Tocmoc Solutions	2 Weeks

Table B.2.2.5.c: Students Internship Details for the year 2019-20

Students Internship Details for the year 2018-19

Sl.No.	Roll No.	Name	Name of the Industry	Date/Duration
1	15NM1A0562	Ms. KunchaSupriya	East Coast Railway, Bhubaneswar	2 Weeks
2	15NM1A0586	Ms.Pokuri Sri Lakshmi Kavya	East Coast Railway, Bhubaneswar	2 Weeks
3	15NM1A05A0	Ms.SeerapuGyana Priya	East Coast Railway, Bhubaneswar	2 Weeks
4	15NM1A05B9	Ms .Vudatta Suma	Atom Software Solutions	One Month
5	15NM1A05C5	Ms .Dady Lalita	Atom Software Solutions	One Month
6	15NM1A05C6	Ms. Dantuluri K L Sai Shivani	Atom Software Solutions	One Month
7	15NM1A05D4	Ms. Gollavilli Hema Anasari	Atom Software Solutions	One Month
8	15NM1A05D6	Ms. GrandhiMahathi	Atom Software Solutions	One Month
9	15NM1A05E0	Ms. Kallempudi Gnanamai	Atom Software Solutions	One Month
10	15NM1A05E8	Ms. M. Vasanthi	Atom Software Solutions	One Month
11	15NM1A05G1	Ms. Peddireddy Mahathi	Atom Software Solutions	One Month
12	15NM1A05H4	Ms. Urukuti Yamini	Atom Software Solutions	One Month
13	15NM1A0570	Ms. Masabattula Neelima	Steel Plant, Vishakhapatnam	2 Weeks
14	15NM1A0579	Ms. Paila Manoranjani	Steel Plant, Vishakhapatnam	2 Weeks
15	15NM1A0598	Ms. Salapu Mohini Priyanka	Steel Plant, Vishakhapatnam	2 Weeks
16	15NM1A0591	Ms. Pullai Venkata Sai Sri Kameswari Mahima	Steel Plant, Vishakhapatnam	2 Weeks
17	15NM1A0569	Ms. Mandarapu Pavani	Steel Plant, Vishakhapatnam	2 Weeks

18	15NM1A0593	Ms. R V S R N Sri Vaishnavi	Steel Plant, Vishakhapatnam	2 Weeks
19	15NM1A05B2	Ms. Telu Sai Renuka	Steel Plant, Vishakhapatnam	2 Weeks
20	15NM1A0573	Ms. Nadimpalli Sravya	Steel Plant, Vishakhapatnam	2 Weeks
21	15NM1A05F0	Ms. Malla Srivalli	Steel Plant, Vishakhapatnam	2 Weeks
22	15NM1A05B3	Ms. Tentu Anusha	Steel Plant, Vishakhapatnam	One Month
23	15NM1A0599	Ms. Seeramsetty Kavya	Steel Plant, Vishakhapatnam	One Month
24	15NM1A0566	Ms. Mallem Susmitha	Steel Plant, Vishakhapatnam	One Month
25	15NM1A0576	Ms. Nudurupati Lalitha Nagasai	Steel Plant, Vishakhapatnam	One Month
26	15NM1A0565	Ms. Malla Navya	Hindustan Shipyard Limited	2 Weeks
27	15NM1A0567	Ms. Mallina Kavitha	Hindustan Shipyard Limited	2 Weeks
28	15NM1A05C7	Ms. Dantuluri Ramya Sree	Steel Plant, Visakhapatnam	2 Weeks
29	15NM1A05H3	Ms. Uppu Poojitha	RINL, Visakhapatnam Steel Plant	2 Weeks
30	15NM1A0591	Ms. Pullai Venkata Sai Sri Kameswari Mahima	Steel Plant, Vishakhapatnam	2 Weeks
31	15NM1A0569	Ms. Mandarapu Pavani	Steel Plant, Vishakhapatnam	2 Weeks
32	15NM1A0570	Ms. Masabattula Neelima	BHEL, Visakhapatnam	2 Weeks
33	15NM1A0591	Ms. Pullai Venkata Sai Sri Kameswari Mahima	BSNL, Visakhapatnam.	2 Weeks
34	15NM1A0569	Ms. Mandarapu Pavani	BSNL, Visakhapatnam.	2 Weeks
35	15NM1A0584	Ms. Pentakota Prathyusha	BSNL, Visakhapatnam.	2 Weeks
36	15NM1A0557	Ms.Kondra Nikitha	HSL, Visakhapatnam	2 Weeks
37	15NM1A0503	Ms.Andavarapu Divya	HSL, Visakhapatnam	2 Weeks
38	15NM1A0538	Ms.Issai Bhargavi	HSL, Visakhapatnam	2 Weeks

39	15NM1A0580	Ms.Pangi Hema Bharathi	HSL, Visakhapatnam	2 Weeks
40	15NM1A05A1	Ms. Shaik AshiaParvine	HSL, Visakhapatnam	2 Weeks
41	15NM1A0575	Ms.Nethala Sowmyalatha	HSL, Visakhapatnam	2 Weeks
42	15NM1A05A8	Ms.Srimantula Sailavanya	HSL, Visakhapatnam	2 Weeks
43	15NM1A0584	Ms.Pentakota Prathyusha	HSL, Visakhapatnam	2 Weeks
44	15NM1A0524	Ms.Dittakavi Saraswathi PragnaSree	HSL, Visakhapatnam	2 Weeks
45	15NM1A05A2	Ms. Shaik Karishma	RISPL, Visakhapatnam	3 weeks
46	15NM1A0599	Ms. Seeramsetty Kavya	RISPL, Visakhapatnam	3 weeks
47	15NM1A0555	Ms.Kolusu Lahari	BSNL, Visakhapatnam	One Week
48	15NM1A05C4	Ms. Borra Divyanjali	BSNL, Visakhapatnam	One Week
49	15NM1A05C8	Ms.DayalaGeethika	BSNL, Visakhapatnam	One Week
50	15NM1A05D9	Ms. Kambhampati Bhavishya Prakasani	BSNL, Visakhapatnam	One Week
51	15NM1A05E3	Ms. Kottakki Venkata Yamini	BSNL, Visakhapatnam	One Week
52	15NM1A05F4	Ms. Ommi Mohana Keerthi	BSNL, Visakhapatnam	One Week
53	15NM1A05F9	Ms. P. Uma Padmaja	BSNL, Visakhapatnam	One Week
54	15NM1A05G0	Ms. Peddireddy Harika Padmavathi	BSNL, Visakhapatnam	One Week
55	15NM1A05G5	Ms. Rompalli Mounika	BSNL, Visakhapatnam	One Week
56	16NM1A05H1	Ms. R. Lochana Sai Mamba	Steel Plant, Visakhapatnam	2 Weeks

57	16NM1A05G0	Ms. Kodali Sri Harsha	Steel Plant, Visakhapatnam	2 Weeks
58	16NM1A05F3	Ms. K. Lahari	Steel Plant, Visakhapatnam	2 Weeks

Table B.2.2.5.d: Students Internship details for the year 2018-19

Students Internship Details for the year 2017-18

Sl. No.	Roll No.	Name	Name of the Industry	Date/Duration
1	14NM1A0585	Ms. Pithani Rohini	Steel Plant, Visakhapatnam	2 Weeks
2	14NM1A0598	Ms. Theppala Radhika	Steel Plant, Visakhapatnam	2 Weeks
3	14NM1A05A0	Ms.Vadisila Aruna Kumari	Steel Plant, Visakhapatnam	2 Weeks
4	14NM1A05D5	Ms.Kallepalli Sushmitha	Steel Plant, Visakhapatnam	One Month
5	14NM1A05F4	Ms. Santhuluri Venkata Sobha Jyothi	Steel Plant, Visakhapatnam	One Month
6	14NM1A05F7	Ms. Sunitha Sahu	BSNL, O/o GMTD, Dabagardens, Visakhapatnam-530020	2 Weeks
7	14NM1A05F8	Ms. Thamada Uma	BSNL, O/o GMTD, Dabagardens, Visakhapatnam-530020	2 Weeks
8	15NM5A0509	Ms. S. Keerthi	HPVP Unit, BHEL, Visakhapatnam	2 Weeks
9	14NM1A05G5	Ms. Venigalla Tejaswini	Steel Plant, Visakhapatnam	2 Weeks
10	14NM1A0563	Ms.Ch. Lohitha	Steel Plant, Visakhapatnam	2 Weeks
11	14NM1A0591	Ms. R. Anitha	Steel Plant, Visakhapatnam	2 Weeks
12	15NM1A05D5	Ms. Gondesi Gowthami	Steel Plant, Visakhapatnam	1Week
13	15NM1A05E4	Ms. Kusuma Priya Kuchu	Steel Plant, Visakhapatnam	1Week
14	15NM1A05F5	Ms. P Deekshita	Steel Plant, Visakhapatnam	1Week
15	15NM1A05C7	Ms. Dantuluri Ramya Sree	Steel Plant, Visakhapatnam	1Week
16	15NM1A05E1	Ms. Kolagani Laxmi Venkata Lahari	Steel Plant, Visakhapatnam	1Week

17	15NM1A05E6	Ms. Lingampalli Divya sri	Steel Plant, Visakhapatnam	1Week
18	15NM1A05F1	Ms. Muddada Gayathri	Steel Plant, Visakhapatnam	1Week
19	15NM1A05H3	Ms. Uppu Poojitha	Steel Plant, Visakhapatnam	1Week
20	15NM1A0574	Ms. Nelluri Madhuri Sowjanya	Steel Plant, Visakhapatnam	3 Weeks
21	15NM1A0592	Ms. Puppala Niharika	Steel Plant, Visakhapatnam	3 Weeks
22	15NM1A05A5	Ms. Siriyala Surekha	Steel Plant, Visakhapatnam	3 Weeks
23	15NM1A05A9	Ms. Suvvari Vineetha	Steel Plant, Visakhapatnam	3 Weeks
24	15NM1A05C0	Ms. Vysyaraju Priyanka	Steel Plant, Visakhapatnam	3 Weeks
25	15NM1A0591	Ms. Pullai Venkata Sai Sri Kameswari Mahima	BHEL,Visakhapatnam	3 Weeks
26	15NM1A0569	Ms. Mandarapu Pavani	BHEL,Visakhapatnam	3 Weeks
27	15NM1A05B6	Ms. Tutta Vandana	BHEL,Visakhapatnam	3 Weeks
28	15NM1A05C2	Ms. Anupriya Acharya	BHEL,Visakhapatnam	3 Weeks
29	15NM1A05D8	Ms. Guntupalli Haritha	BHEL,Visakhapatnam	3 Weeks
30	15NM1A0578	Ms. Pagadala Sai Rajeevi	Steel Plant, Visakhapatnam	2 Weeks
31	15NM1A0563	Ms. Lagudu Anuradha	Steel Plant, Visakhapatnam	2 Weeks
32	15NM1A0572	Ms. Munjeti Nikhila	Steel Plant, Visakhapatnam	2 weeks
33	15NM1A0577	Ms. Oruganti Naga Durga Vara Manisha	Steel Plant, Visakhapatnam	2 weeks
34	15NM1A05B5	Ms. Tikka Pooja Naga Mounika	Steel Plant, Visakhapatnam	2 weeks
35	15NM1A0503	Ms. Andavarapu Divya	Steel Plant, Visakhapatnam	2 weeks
36	15NM1A0509	Ms. Asi Kavya Reddy	Steel Plant, Visakhapatnam	2 weeks
37	15NM1A0522	Ms.Dasari Kamaleshwari	Steel Plant, Visakhapatnam	2 weeks

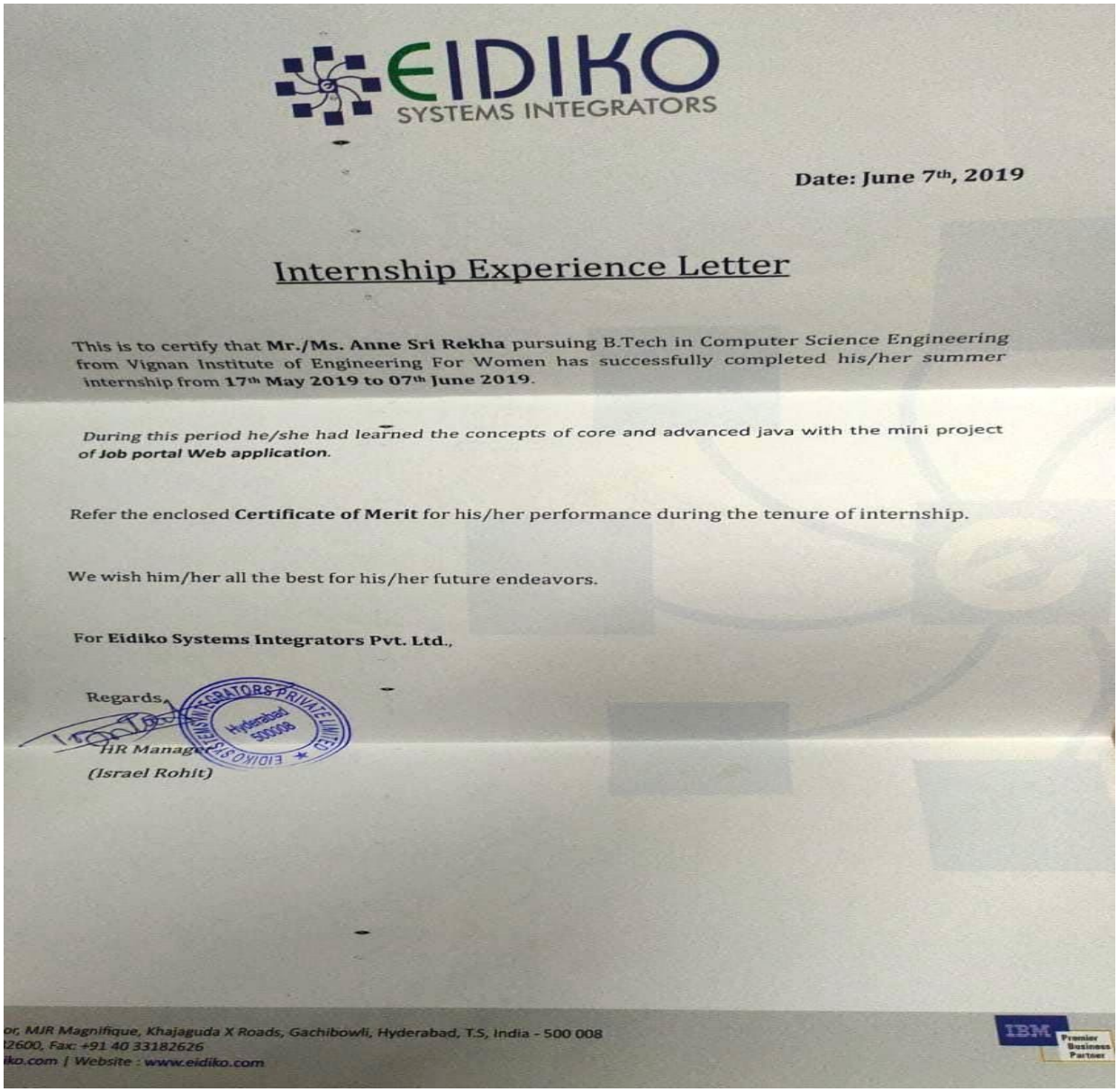
38	15NM1A0538	Ms. Issai Bhargavi	Steel Plant, Visakhapatnam	2 weeks
39	15NM1A0557	Ms. Kondra Nikitha	Steel Plant, Visakhapatnam	2 weeks
40	15NM1A0584	Ms. Pentakota Prathyusha	Steel Plant, Visakhapatnam	1 Week
41	15NM1A05A1	Ms. Shaik Ashia Parvine	Steel Plant, Visakhapatnam	1 Week
42	15NM1A0561	Ms. Kukkadapu Pratyusha	Steel Plant, Visakhapatnam	1 Week
43	15NM1A0540	Ms. Jinaga Himabindu	Steel Plant, Visakhapatnam	1 Week
44	15NM1A0505	Ms. Anjum Javeria	Steel Plant, Visakhapatnam	1 Week
45	15NM1A0518	Ms. Chindada Lakshmi Sree	Steel Plant, Visakhapatnam	1 Week
46	15NM1A0575	Ms. Nethala Sowmyalatha	Steel Plant, Visakhapatnam	1 Week
47	15NM1A0580	Ms. Pangi Hema Bharathi	Steel Plant, Visakhapatnam	1 Week
48	15NM1A0590	Ms. Pragada Sujatha	Steel Plant, Visakhapatnam	1 Week
49	15NM1A0597	Ms. Sai Bhavana Bonthu	Steel Plant, Visakhapatnam	1 Week
50	15NM1A05A8	Ms. Srimantula Sai Lavanya	Steel Plant, Visakhapatnam	1 Week

Table B.2.2.5.e: Students Internship Details for the year 2017-18

Post Training Assessment:

(i) Post Training Certification:

Certification is one of the most important elements of training and essential to increase the uptake and encourage the completion of training. The students are awarded with certificates after the summer training Internship. A sample certificate is shown in Figure **B.2.2.5.1.b**



EIDIKO
SYSTEMS INTEGRATORS

Date: June 7th, 2019

Internship Experience Letter

This is to certify that **Mr./Ms. Anne Sri Rekha** pursuing B.Tech in Computer Science Engineering from Vignan Institute of Engineering For Women has successfully completed his/her summer internship from **17th May 2019 to 07th June 2019**.

*During this period he/she had learned the concepts of core and advanced java with the mini project of **Job portal Web application**.*

Refer the enclosed **Certificate of Merit** for his/her performance during the tenure of internship.

We wish him/her all the best for his/her future endeavors.

For **Eidiko Systems Integrators Pvt. Ltd.**,

Regards,

HR Manager
(Israel Rohit)

EIDIKO SYSTEMS INTEGRATORS PRIVATE LIMITED Hyderabad 500008

or, MJR Magnifique, Khajaguda X Roads, Gachibowli, Hyderabad, T.S, India - 500 008
2600, Fax: +91 40 33182626
iko.com | Website : www.eidiko.com

IBM Premier Business Partner

Figure B.2.2.5.d: Student internship certificate

(ii) Post Training Evaluation:

- Post Training Evaluation is a very important part of the learning and development process and checks whether the training has had the desired effect.
- Training evaluation ensures that whether students are able to implement their learning in their respective courses.
- The tests and assessments are designed and conducted to all the students who underwent training, and results presented back to the learners to understand their level of training.
- The exam is online in which 10 MCQs are given on the trained topic.
- The students have to give the exam before 1 week after the training.
- The students who have scored at least 50% of marks in the exam only can claim that they have completed their training.

The sample evaluation form for Data Science using Python is shown in Figure: B.2.2.5c.

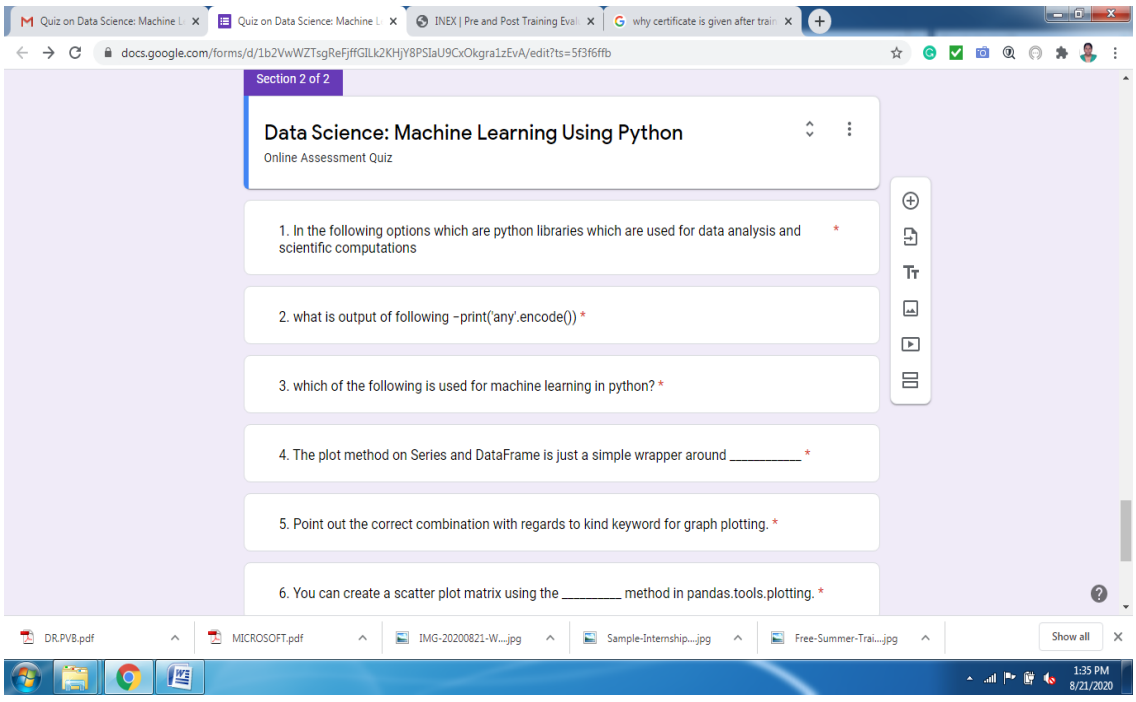


Figure B.2.2.5.e: Post training evaluation sheet for Data Science using Python

The students are also evaluated by sending an evaluation form from the department to the organization they underwent training. They are requested to fill the feedback of the student and reply again. The sample feedback form given by the trainer is shown below in Figure B.2.2.5d.

Summer Training Evaluation Form (Confidential Report)

Student Name	Student ID	Department	specialization
B. Bhanu Sree	16NM1A0522	CSE	

Company Name	BRAINOVISION SOLUTIONS(INDIA)Pvt. Ltd
Address	Madhapur Hyderabad.
Area of specialization	Python
Department	CSE
Training period:	From 14/5/2018 to 26/5/2018
Number of weeks:	2

Student training program summary:
It was a great experience to be trained. exposed to an Industrial platform.

Student performance evaluation	Unsatisfactory	Developing	Satisfactory	Exemplary
Commitment of attendance			✓	
Following the instructions and guidance			✓	
Extent of cooperation		✓		
Ability to understand the work assigned to him				✓
Ability to communicate effectively				✓
Ability to work within a group			✓	
Ability to work independently				✓
Creativity at work				✓
Scientific background			✓	
Overall evaluation of student				✓

Supervisor Name	Position	Signature	Stamp
G. Ram	System Analyst		

Figure B.2.2.5.f: Post training evaluation sheet of the Student from the Industry Trainer

C. Impact Analysis of Industrial Training (4)

For the last three years, more than 150 students received training from various industries in and around Visakhapatnam during semester break. The major industries in which students have undergone training are STEEL PLANT, BSNL, BHEL, HSL, Fluent Grid, etc.

- Awareness on recent tools used in industry help them to learn and grab opportunities in various MNC companies.
- Product based projects are implemented by the students.
- Team work, communication skills, soft skills are improved.
- Industry expert interaction helps them to understand the need of applying contextual knowledge to assess societal, health and safety issues.
- The visit to industry helps the student to improve the practical knowledge of the processes and systems.
- Students are motivated towards research based knowledge by improving their degree through higher studies.

Academic Year	No. of students participated in Industrial training/ tours	No. of students got quality placements	No. of students implemented product based projects	No. of students successfully graduated	No. of students implemented research based projects
2019-20	101	80	20	101	80
2018-19	145	97	16	145	32
2017-18	124	78	16	124	24

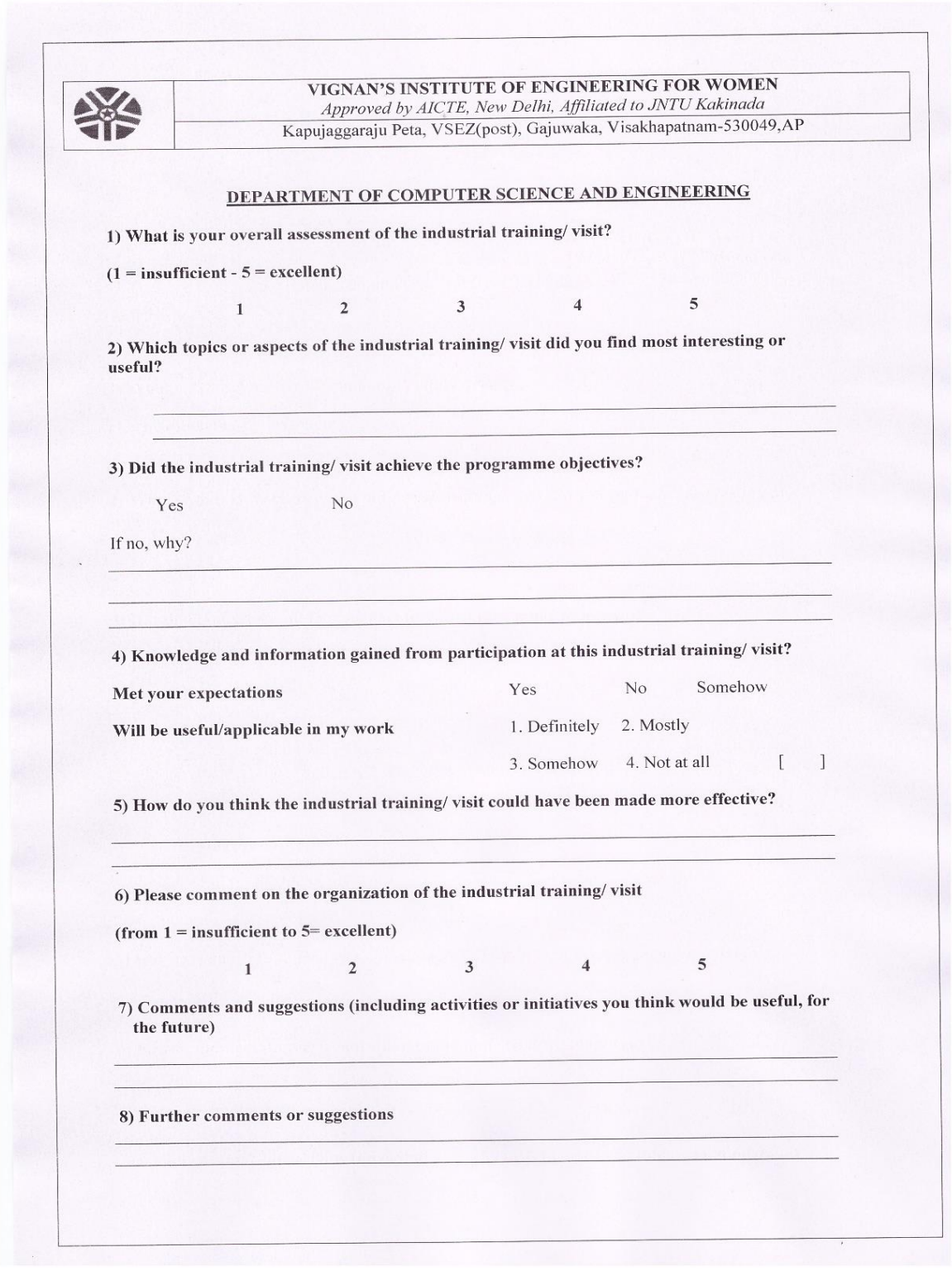
Table B.2.2.5.f: Impact Analysis of Industrial Training/ Tours

D. Student Feedback on Initiative (4)

The feedback from the students who have visited the industries for internship/ training is collected and reviewed for further improvement in conducting such activities. The feedback collected helps the department to take necessary measures to improve and increase such activities that benefits the successive student batches. The following are some of the comments received by the students after their successful completion of training / industrial visit:

- Demonstrate the process of networking structure, network management and Telecom services provided by BSNL.
- Understand the working model of 3D printing at AMTZ.
- Describe the types of systems used in Hindustan Shipyard Limited, BHEL, and Steel Plant.
- Students trained in Microsoft WISE program told that the program assisted them to get selected in companies with high packages as listed in Table B.2.2.1j.
- Students who underwent Machine Ignite program got selected in Microsoft.
- Students trained in HMI Robo Coupler Engineering Services are planning to make a Live Robo Model and exhibit in the next Live Model exhibition.
- Students trained in Internshala are doing machine learning projects as mini projects.

A sample feedback form for Industry internship/summer training is given below**.**



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
Approved by AICTE, New Delhi, Affiliated to JNTU Kakinada
Kapujaggaraju Peta, VSEZ(post), Gajuwaka, Visakhapatnam-530049,AP

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1) What is your overall assessment of the industrial training/ visit?

(1 = insufficient - 5 = excellent)

1 2 3 4 5

2) Which topics or aspects of the industrial training/ visit did you find most interesting or useful?

3) Did the industrial training/ visit achieve the programme objectives?

Yes No

If no, why?

4) Knowledge and information gained from participation at this industrial training/ visit?

Met your expectations Yes No Somehow

Will be useful/applicable in my work 1. Definitely 2. Mostly

3. Somehow 4. Not at all [ ]

5) How do you think the industrial training/ visit could have been made more effective?

6) Please comment on the organization of the industrial training/ visit

(from 1 = insufficient to 5= excellent)

1 2 3 4 5

7) Comments and suggestions (including activities or initiatives you think would be useful, for the future)

8) Further comments or suggestions

Figure B.2.2.5.g: Sample student feedback form

In 2017-18, the number of students completed industrial training in steel plant is 42. The feedback is collected from all the students and consolidated. The consolidated report is given below.

Sl. No	Parameter	Feedback grades				
		5	4	3	2	1
1	Usefulness of the content learnt at training place	38	4			
2	Hands on experience at training place	37	5			
3	Was the training above or below your current skill level	40	1	1		
4	Overall, how would you rate the internship/ training program	35	5	2		
5	Did the training program achieve your program objective	**Yes:** 42		**No:** Nil		

Table B.2.2.5.g: Feedback analysis of industrial visits/training

Criterion 3	Course Outcomes (CO) and Program Outcomes (PO)	120

3.1	Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs)	20M
3.2	Attainment of Course Outcomes	50M
3.3	Attainment of Program Outcomes and Program Specific Outcomes	50M

Criterion 3	Course Outcomes (CO) and Program Outcomes (PO)	120

3. COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

3.1. Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

(Program Outcomes as mentioned in Annexure-1 and Program specific Outcomes as defined by the Program)

Program Specific Outcomes (PSO):

PSO1: Graduates exhibit knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.

PSO2: Graduates can adapt to evolving technologies for design and development of full stack applications, exploring with optimal programming skills.

3.1.1. Course Outcomes (COs) (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (05)

Course Outcomes are measurable parameters which evaluates each student's performance for every course. These course outcomes also serve as key instruments for the assessment of students in B.Tech Computer Science and Engineering program.

Taking the curriculum designed by the JNTUK, Kakinada, 4 to 6 Course Outcomes for each course are framed. After having rigorous discussions with the subject experts of the course, the course coordinator prepares draft copy of the course outcomes.

The course outcomes are finalized with the approval of Program Assessment Committee (PAC) and Head of the Department. The same procedure is followed for further refinements in proposed Course outcomes.

The below mentioned table mentioned represents the outcomes of each course considering one course per each semester. The outcomes corresponding to three assessment years, **CAY (2018-19), CAYm1 (2017 -18) and CAYm2 (2016-17) are:**

Course Outcomes of 2013 Admitted Batch

Course Name**: Data Structures;**Year of Study:**2014-15;**Year/Sem: **II/I; Regulation:R13**	
C202.1	Classify data structures; implement various recursive problems and linear data structures to relate real world applications.
C202.2	Develop linear data structures using stack and queue operations for storing and evaluating the input data.
C202.3	Develop linear data structures using arrays and linked lists and the ability to apply them to solve generic problems.
C202.4	Develop non-linear data structures using various operations to create tree structures.
C202.5	Illustrate data structure algorithms using applications of binary search tree and graphs.
C202.6	Evaluate minimum cost spanning trees and shortest path using various applications of graph algorithms.

Course Name**: Computer Organization;**Year of Study:**2014-15;**Year/Sem: **II/II; Regulation:R13**	
C213.1	Outline the structure of a computer and the data representations.
C213.2	Organize the functioning and the importance of the processor.
C213.3	Discuss various instruction formats and addressing modes.
C213.4	Solve basic arithmetic operations using binary and decimal representation.
C213.5	Classify the types of memory and their role in the computer.
C213.6	Illustrate the functioning and advantages of multiprocessor.

Course Name**: Database Management System;** Year of Study:**2015-16;**Year/Sem: **III/I; Regulation:R13**	
C304.1	Infer the knowledge on Database System and its Architecture.
C304.2	Demonstrate Relational Database models through Relational calculus and Relational algebra for Database design.
C304.3	Develop, Modify and manipulate a relational database using SQL.
C304.4	Improve the database design by applying normalization.
C304.5	Illustrate the concept of transaction, concurrency control and recovery in database.
C304.6	Organize database storage structures and access techniques using file organization, indexing methods include B-Tree, hashing.

Course Name**: Computer Networks;** Year of Study:**2015-16;** Year/Sem: **III/II; Regulation:R13**	
C312.1	Classify the layers of the OSI model and TCP/IP protocol and to dwell deep into network models and topologies.
C312.2	Identify various aspects of physical layer functions such as multiplexing techniques and switching networks.
C312.3	Examine the functions like Framing, flow control and error control by availing the Services of Data link layer.
C312.4	Apply different Random access approaches and use multiply Network Routing protocols.
C312.5	Analyze the standards by enabling different layers and its addressing mechanism through defined IEEE norms
C312.6	Prioritize various protocols in WAP supported by Application layer

Course Name**: UML & DESIGN PATTERNS;** Year of Study:**2016-17;** Year/Sem: **IV/I; Regulation:R13**	
C402.1	Identify the methods of object-oriented design and design patterns for building a good design using UML
C402.2	Analyze the requirements using FRUPS model and develop use case diagrams for modeling the system
C402.3	Make use of GRASP pattern for behavioral diagrams to represent the data dependencies, properties of interactive system
C402.4	Utilize design patterns for constructing the UML diagrams to solve the real-time problems
C402.5	Examine the nature of the system using behavioral diagrams
C402.6	Develop the system in different context by domain refinements, architecture and package model elements

Course Name**: Distributed Systems;** Year of Study:**2016-17;** Year/Sem: **IV/II; Regulation:R13**	
C411.1	Organize the characterization and the salient architectural features and fundamental models of Distributed systems.
C411.2	Analyze the important characteristics of inter-process communication of the standard protocols.
C411.3	Organize the remote method invocation using distributed objects with a case study.
C411.4	Outline the processes and thread creation and protection in operating system.
C411.5	Outline various algorithms used in coordination of distributed systems and Distributed file systems.
C411.6	Apply transactions and its recovery strategies in distributed systems

Table B.3.1.1.a: Course Outcomes for 2013 admitted Batch

Course Outcomes of admitted batch 2014

Course Name**: Object Oriented Programming through C++;**Year of Study:**2015-16;** Year/Sem: **II/I; Regulation:R13**	
C203.1	Outline the basic terminology used in object-oriented programming through C++.
C203.2	Write programs involving decision structures, loops in C++.
C203.3	Relate the classes and objects and functions with Access specifiers.
C203.4	Classify the Constructors, destructors and type conversion using static and local member functions.
C203.5	Distinguish the types of inheritance and polymorphism with access specifiers in C++.
C203.6	Categorize the file stream classes, templates to handle the exceptions in C++.

Course Name**: Advanced Data Structures;**Year of Study:**2015-16;** Year/Sem: **II/II; Regulation:R13**	
C212.1	Illustrate the dictionaries using hashing Mechanism and skip list.
C212.2	Develop various operations on balanced trees like AVL, 2-3trees using rotate operation.
C212.3	Demonstrate the operations of heap and binomial queue using binary heap.
C212.4	Construct shortest path for nonlinear data structure using various algorithms.
C212.5	Analyze complexities in various sorting techniques.
C212.6	Explain the properties of various pattern matching Algorithms, issues related to the design of file structures.

Course Name**: Compiler Design;** Year of Study:**2016-17;** Year/Sem: **III/I; Regulation:R13**	
C301.1	Interpret the working and paraphrasing the phases of a compiler.
C301.2	Summarize the role of grammars and illustrate different parsing techniques in compilers**.**
C301.3	Distinguish bottom up and top down parsing methodologies of compilers**.**
C301.4	Interpret the semantic rules and the types of Intermediate codes to design a compiler**.**
C301.5	Classify various storage methodologies for the compiler design.
C301.6	Develop the optimized code using various optimization techniques.

Course Name**: Data warehousing and Mining;** Year of Study:**2016-17;**Year/Sem: **III/II; Regulation:R13**	
C311.1	Identify the need for having a data warehouse in addition to the traditional operational database systems
C311.2	Prepare the data using preprocessing techniques so as to apply the mining tasks effectively
C311.3	Identify the key components in typical data ware house architecture
C311.4	Evaluate the performance of different data mining algorithms
C311.5	Prepare frequent item sets for FP growth algorithm
C311.6	Compare different clustering algorithms

Course Name**: Mobile Computing;** Year of Study:**2017-18;** Year/Sem: **IV/I; Regulation:R13**	
C403.1	Outline the concept of mobile computing paradigm, its novel applications and limitations for handling the mobile and GSM services
C403.2	Identify mobile networking infrastructure through a popular GSM protocol
C403.3	Make use of various medium access controls for wireless mobile usage**.**
C403.4	Examine the use of Mobile IP protocol to form the mobile network.
C403.5	Categorize Database hoarding & Caching techniques for synchronization of data
C403.6	Classify various routing algorithms and focus on mobile computing platforms to enhance the mobile environment

Course Name**: Cloud Computing;** Year of Study:**2017-18;** Year/Sem: **IV/II; Regulation:R13**	
C410.1	Interpret the architecture and infrastructure models of cloud computing.
C410.2	Understand the virtualization concepts of virtual machines and data centers.
C410.3	Infer the design concepts of cloud ready applications.
C410.4	Compare different cloud center’s implementation.
C410.5	Understand the concepts of cloud scaling and disaster recovery.
C410.6	Interpret the security and risk issues in cloud computing.

Table B.3.1.1b: Course Outcomes for 2014 admitted Batch

Course Outcomes of admitted batch 2015

Course Name**: Data Structures;**Year of Study:**2016-17;** Year/Sem: **II/I; Regulation:R13**	
C202.1	Classify data structures; implement various recursive problems and linear data structures to relate real world applications.
C202.2	Develop linear data structures using stack and queue operations for storing and evaluating the input data.
C202.3	Develop linear data structures using arrays and linked lists and the ability to apply them to solve generic problems.
C202.4	Develop non-linear data structures using various operations to create tree structures.
C202.5	Illustrate data structure algorithms using applications of binary search tree and graphs.
C202.6	Evaluate minimum cost spanning trees and shortest path using various applications of graph algorithms.

Course Name**: Java Programming;** Year of Study:**2016-17;** Year/Sem: **II/II; Regulation:R13**	
C211.1	Generalize the basic concepts and principles of structured as well as the object-oriented programming.
C211.2	Determine and demonstrate all data types, primitives, operators, control statements, arrays, functions and all standard objects available in java.
C211.3	Apply object-oriented constructs such as class hierarchies, interfaces and exception handling.
C211.4	Write good java programs in GUI using applets for helping society and environment.
C211.5	Analyze the working of synchronization of threads.
C211.6	Develop interfaces using AWT and swings for designing projects.

Course Name**: Operating Systems;** Year of Study:**2017-18;** Year/Sem: **III/I; Regulation:R13**	
C305.1	Outline the major components and the services of an operating system provides to user, processes and other systems.
C305.2	Discuss the process and its scheduling, multithread models to evaluation criteria for selecting a CPU scheduling algorithm.
C305.3	Analyze solutions to ensure consistency of shared data problems and classic problems of process synchronization.
C305.4	Discuss various memory management techniques, the benefits of virtual memory system and page replacement algorithms.
C305.5	Identify deadlock and different methods for preventing or avoiding deadlocks in a computer system.
C305.6	Discuss access methods, structures, allocation methods of files and disks.

Course Name**: Software Engineering;** Year of Study:**2017-18;** Year/Sem: **III/II; Regulation:R13**	
C310.1	Classify the various software development models for achieving the challenges of software engineering.
C310.2	Identify the suitable software requirements and prepare SRS document using various Analyses.
C310.3	Analyze software design using various software designing models and its principles.
C310.4	Apply coding standards to build code for applications and testing approaches of verification & validation.
C310.5	Estimate the project planning and role of the project management using project estimation Techniques.
C310.6	Explain the software maintenance using various software quality factors.

Course Name**: Software Testing Methodologies;** Year of Study:**2018-19;**Year/Sem: **IV/I; Regulation:R13**	
C404.1	Illustrate Software Testing Terminology and Methodology and the basic concepts of software complexity.
C404.2	Demonstrate the various bugs and correcting them after knowing the consequences of the bug.
C404.3	Apply appropriate software testing techniques and methods for white-box and static-testing of a software development project.
C404.4	Analyze the problems by designing and selecting software test strategies and methods.
C404.5	Analyze the problems by designing matrix of graph models, criteria, strategies and algorithms.
C404.6	Discover the Challenges in testing of applications in various tools like Win runner, Load Runner and JMeter.

Course Name**: Distributed Systems;** Year of Study:**2018-19; Y**ear/Sem: **IV/II; Regulation:R13**	
C411.1	Discuss the various distributed system models and their architectural features.
C411.2	Analyze the important characteristics of inter-process communication of the standard protocols.
C411.3	Organize the remote method invocation using distributed objects with a case study.
C411.4	Outline the processes and thread creation and protection in operating system.
C411.5	Outline various algorithms used in coordination of distributed systems and distributed file systems.
C411.6	Apply transactions and its recovery strategies in distributed systems.

Table B.3.1.1c: Course Outcomes for 2015 admitted Batch

3.1.2. CO-PO matrices of courses selected in 3.1.1 (six matrices to be mentioned; one per semester from 3rd to 8th semester) (05)

The following represents the course outcome relation with the PO/PSO. The table consists of the correlation of the outcomes defined in Sec. 3.1.1 with respect to the program outcomes and the PSOs.

Admitted Batch 2013

Course Name**: Data Structures;**Year of Study:**2014-15;** Year/Sem: **II/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C202.1	2	2	2	2	2	-	-	2	-	-	-	-
C202.2	2	2	2	-	2	-	-	2	2	-	-	2
C202.3	3	3	3	2	2	2	-	-	2	-	-	-
C202.4	3	3	3	3	2	2	-	2	1	-	2	-
C202.5	3	3	3	-	3	2	-	-	-	-	2	2
C202.6	3	3	3	-	3	-	-	-	-	-	2	2
C202	2.33	2.33	2.33	1.67	2.00	2.00	-	-	1.67	-	2.00	2.00

Course Name**: Computer Organization;**Year of Study:**2014-15;**Year/Sem: **II/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C213.1	3	3	3	-	3	-	-	-	-	-	-	2
C213.2	3	3	3	-	3	-	-	-	-	-	-	2
C213.3	2	2	2	2	2	-	-	-	-	-	2	-
C213.4	2	2	2	2	2	-	-	-	-	-	2	-
C213.5	2	2	2	-	3	-	-	-	-	-	-	2
C213.6	2	2	2	2	2	-	-	-	-	-	2	-
C213	2.33	2.33	2.33	2.00	2.50	-	-	-	-	-	2.00	2.00

Course Name**: Database Management systems;**Year of Study:**2015-16;**Year/Sem: **III/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C304.1	3	3	3	3	3	-	-	-	-	-	-	-
C304.2	3	3	3	3	2	-	-	-	-	-	-	-
C304.3	2	2	2	3		2	-	-	2	2	-	-
C304.4	2	2	2	3	2	2	-	-	2	2	2	2
C304.5	2	2	2	2		2	-	-	2	2	2	2
C304.6	2	2	2	2		-	-	-	-	-	2	3
C304	2.33	2.33	2.33	2.67	2.67	2.00	-	-	2.00	2.00	2.00	2.33

Course Name**: Computer Networks;**Year of Study:**2015-16;**Year/Sem: **III/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C312.1	3	3	3	2	-	-	-	-	-	2	-	-
C312.2	3	3	3	2	-	-	-	-	2	-	-	-
C312.3	2	3	2	2	2	-	-	-	2	2	-	-
C312.4	2	3	2	3	-	-	-	-	2	-	-	-
C312.5	2	3	2	3	2	-	-	-	-	2	-	-
C312.6	2	2	2	2	3	-	-	-	-	-	-	-
C312	2.33	2.83	2.33	2.33	2.33	-	2.00	-	2.00	2.00	-	-

Course Name: **UML & Design Patterns;** Year of Study: **2016-17;** Year/Sem: **IV/I;** **Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C402.1	3	3	2	-	2	-	2	2	2	-	-	2
C402.2	3	3	2	2	-	2	-	2	2	-	2	-
C402.3	2	2	2	-	-	2	2	-	-	2	-	-
C402.4	2	2	2	2	2	-	2	-	2	2	2	2
C402.5	2	2	2	-	-	2	-	1	-	3	-	-
C402.6	2	2	2	1	2	-	-	-	-	-	3	3
C402	2.33	2.33	2.00	1.67	2.00	2.00	2.00	1.67	2.00	2.33	2.33	2.33

Course Name: **Distributed Systems;** Year of Study: **2016-17;** Year/Sem: **IV/II;** **Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C411.1	3	3	3	3	-	2	-	-	2	-	2	2
C411.2	3	3	3	3	-	-	-	-	2	-	-	-
C411.3	2	2	2	2	2	2	-	-	-	-	-	-
C411.4	2	2	2	2	-	-	-	-	-	-	2	-
C411.5	2	2	2	2	2	2	-	-	2	-	-	2
C411.6	2	2	2	2	2	-	-	-	-	-	2	2
C411	2.33	2.33	2.33	2.33	2.00	2.00	-	-	2.00	-	2.00	2.00

Table B.3.1.2.a: CO-PO mapping for 2013 admitted Batch

Admitted Batch 2014

Course Name: **Object Oriented Programming through C++; Year** of Study: **2015-16;** Year/Sem: **II/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C203.1	3	3	3	2	3	2	-	2	-	2-	-	2
C203.2	3	3	3	2	3	-	-	2	-	2	-	-
C203.3	3	3	2	2	2	2	-	3	-	2	-	3
C203.4	3	2	2	2	2	2	-	3	-	-	-	-
C203.5	2	2	2	3	2	-	-	-	-	-	-	-
C203.6	2	2	2	3	2	-	-	-	-	-	-	-
C203	2.67	2.50	2.33	2.33	2.33	2.00	-	-	-	2.00	-	2.50

Course Name: **Advanced Data Structures;** Year of Study: **2015-16;** Year/Sem: **II/II;** **Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C212.1	3	3	3	3	-	-	-	-	2	-	2	2
C212.2	3	3	3	3	2	-	-	-	2	-	-	-
C212.3	3	3	2	2	2	-	-	-	2	-	2	-
C212.4	2	2	2	2	3	-	-	-	-	-	-	-
C212.5	2	2	2	2	-	-	-	-	-	-	-	2
C212.6	2	2	2	2	-	-	-	-	-	-	2	2
C212	2.50	2.50	2.33	2.33	2.33	-	-	-	2.00	-	2.00	2.00

Course Name: **Compiler Design;** Year of Study: **2016-17;** Year/Sem: **III/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C301.1	3	3	3	-	-	-	-	-		-	-	2
C301.2	3	3	3	3	-	-	-	-	2	-	-	-
C301.3	2	3	2	3	-	-	-	-	2	-	-	2
C301.4	2	3	2	3	-	-	-	-	-	-	-	-
C301.5	2	2	2	-	-	-	-	-	2	-	-	
C301.6	2	2	2	3	-	-	-	-	-	-	-	2
C301	2.33	2.67	2.33	3.00	-	-	-	-	2.00	-	-	2.00

Course Name: **Data Warehousing and Mining;** Year of Study: **2016-17;** Year/Sem: **III/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C311.1	3	2	3	-	-	-	-	-	-	-	-	2
C311.2	3	3	3	2	-	-	-	-	-	-	-	-
C311.3	3	3	2	3	2	-	-	-	2	-	-	-
C311.4	3	3	2	2	-	-	-	-	2	-	-	-
C311.5	3	2	2	3	3	-	-	-	-	-	-	2
C311.6	3	2	2	-	3	-	-	-	2	-	-	3
C311	3.00	2.67	2.33	2.50	2.67	-	-	-	2.00	-	-	2.33

Course Name: **Mobile Computing;** Year of Study: **2017-18;** Year/Sem: **IV/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C403.1	3	3	3	2	-	-	2	2	-	-	-	2
C403.2	3	3	3	-	-	2	-	2	-	-	-	-
C403.3	2	3	2	2	-	2	2	-	-	-	-	-
C403.4	2	2	2	3	-	-	1	-	-	-	-	2
C403.5	2	2	2	-	-	-	-	2	-	-	-	-
C403.6	2	2	2	-	-	-	-	-	-	-	-	2
C403	2.33	2.50	2.33	2.33	-	2.00	1.67	2.00	-	-	-	2.00

Course Name: **Cloud Computing;** Year of Study: **2017-18;** Year/Sem: **IV/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C410.1	3	3	3	-	2	2	-	-	-	-	-	-
C410.2	3	3	3	-	2	-	2	-	2	2	-	2
C410.3	2	2	2	2	-	2	2	-	-	2	2	-
C410.4	2	2	2	2	3	-	1	-	2	1	2	3
C410.5	2	2	2	-	-	-	-	-	3	-	-	-
C410.6	2	2	2	2	-	-	-	-	-	-	2	-
C410	2.33	2.33	2.33	2.00	2.33	2.00	1.67		2.33	1.67	2.00	2.50

Table B.3.1.2.b: CO-PO mapping for 2014 admitted Batch

Admitted Batch 2015

Course Name**: Data Structures;**Year of Study:**2016-17;** Year/Sem: **II/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C202.1	3	3	3	2	3	2	-	-	2	-	2	2
C202.2	3	3	3	2	3	-	-	-	1	-	-	2
C202.3	2	3	3	3	3	2	-	-	2	-	2	2
C202.4	2	3	3	3	3	-	-	-	-	-	-	2
C202.5	2	3	2	3	2	-	-	-	-	-	-	2
C202.6	2	2	2	3	2	2	-	-	-	-	-	2
C202	2.33	2.83	2.67	2.67	2.67	2.00	-	-	1.67	-	2.00	2.00

Course Name**: Java Programming;**Year of Study:**2016-17;** Year/Sem: **II/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C211.1	3	3	3	2	3	2	-	2	2	-	2	2
C211.2	3	3	3	2	3	2	-	2	2	-	2	2
C211.3	2	3	3	2	2	-	-	2	2	-	-	2
C211.4	2	2	2	2	2	-	-	2	2	-	-	2
C211.5	2	2	2	2	2	-	-	2	-	-	-	2
C211.6	2	2	2	2	2	-	-	-	2	-	-	2
C211	2.33	2.50	2.50	2.00	2.33	2.00	-	2.00	2.00	-	2.00	2.00

Course Name**: Operating systems;**Year of Study:**2017- 18;** Year/Sem: **III/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C305.1	3	3	3	2	3	-	-	2	2	2	-	2
C305.2	3	3	3	3	3	-	-	2	2	-	-	-
C305.3	3	3	2	3	2	-	-	-	2	-	-	3
C305.4	3	3	2	3	2	-	-	-	-	3	-	2
C305.5	2	3	2	2	2	-	-	-	-	-	-	-
C305.6	2	2	2	3	2	-	-	-	-	-	-	-
C305	2.33	2.33	2.50	2.67	2.33	-	-	2.00	2.00	2.50	-	2.33

Course Name**: Software Engineering;**Year of Study:**2017-18;** Year/Sem: **III/II; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C310.1	3	3	3	2	2	-	-	3	2	-	3	-
C310.2	3	3	3	3	2	-	-	3	-	-	3	2
C310.3	2	3	3	3	2	-	-	3	2	2	3	-
C310.4	2	2	3	3	2	2	-	3	1	2	3	2
C310.5	2	3	3	3	2	-	-	2	-	-	3	3
C310.6	2	3	3	3	2	2	-	3	2	-	2	-
C310	2.67	2.50	2.50	2.67	2.00	2.50	-	2.83	2.67	2.00	2.83	2.33

Course Name: **Software Testing Methodologies;** Year of Study:**2018-19;**Year/Sem: **IV/I; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C404.1	3	3	3	3	2	-	-	3	2	2	-	-
C404.2	3	3	3	3	2	2	-	3	2	2	2	-
C404.3	2	3	3	3	2	-	-	3	-	-	-	2
C404.4	2	2	2	3	2	2	-		-	3	3	2
C404.5	2	2	2	2	2	3	-		3	-	3	-
C404.6	2	2	2	2	2	-	-		-	-	-	3
C404	2.33	2.50	2.50	2.67	2.00	2.33	-	3.00	2.33	2.33	2.67	2.33

Course Name: **Distributed Systems;**Year of Study:**2018-19;** Year/Sem: **IV/II ; Regulation:R13**												
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C411.1	3	3	3	3	-	2	-	-	-	-	2	2
C411.2	3	3	3	-	-	-	-	-	-	-	-	2
C411.3	2	3	3	-	2	2	-	-	-	-	-	-
C411.4	2	3	3	3	2	-	-	-	2	-	3	-
C411.5	2	3	3	3	-	2	-	-	2	-	-	2
C411.6	2	2	2	-	3	-	-	-	2	-	3	2
C411	2.33	2.83	2.83	3.00	2.33	2.00	-	-	2.00	-	2.67	2.00

Table B.3.1.2.c: CO-PO Mapping for 2015 admitted Batch

CO-PSO matrices of courses selected in 3.1.1

Admitted Batch 2013

Course Name: **Data Structures;** Year of Study: **2014-15;** Year/Sem: **II/I; Regulation:R13**		
CC:202	**PSO 1**	**PSO 2**
C202.1	3	3
C202.2	3	3
C202.3	3	2
C202.4	3	2
C202.5	3	2
C202.6	2	2
C202	2.83	2.33

Course Name: **Computer Organization;** Year of Study: **2014-15;** Year/Sem: **II/II; Regulation:R13**		
CC:213	**PSO 1**	**PSO 2**
C213.1	2	2
C213.2	3	3
C213.3	3	3
C213.4	3	3
C213.5	3	3
C213.6	3	3

C213	2.83	2.83

Course Name: **DBMS** Year of Study: **2015-16;** Year/Sem: **III/I; Regulation:R13**		
CC:304	**PSO 1**	**PSO 2**
C304.1	2	3
C304.2	3	3
C304.3	3	3
C304.4	3	3
C304.5	3	3
C304.6	3	2
C304	2.83	2.83

Course Name: **Computer Networks;** **Year** of Study: **2015-16;** Year/Sem: **III/II;** **Regulation:R13**		
CC: 312	**PSO 1**	**PSO 2**
C312.1	3	3
C312.2	3	3
C312.3	3	2
C312.4	3	2
C312.5	2	2
C312.6	2	2
C312	2.67	2.33

Course Name: **UML & Design Patterns;** Year of Study: **2016-17;** Year/Sem: **IV/I;Regulation:R13**		
CC:402	**PSO 1**	**PSO 2**
C402.1	2	2
C402.2	3	2
C402.3	3	2
C402.4	3	2
C402.5	3	1
C402.6	3	1
C402	2.83	1.67

Course Name: **Distribution Systems;** Year of Study: **2016-17;** Year/Sem: **IV/II;Regulation:R13**		
CC:411	**PSO 1**	**PSO 2**
C411.1	**3**	**3**
C411.2	**3**	**3**
C411.3	**3**	**2**
C411.4	**3**	**2**
C411.5	**3**	**2**
C411.6	**2**	**2**

C411	2.83	2.33

Table B.3.1.2.d: CO-PSO Mapping for 2013 Admitted Batch

Admitted Batch 2014

Course Name: **Object Oriented Programming through C++;** Year of Study: **2015-16;** Year/Sem: **II/I; Regulation:R13**		
CC:203	**PSO 1**	**PSO 2**
C203.1	2	3
C203.2	3	3
C203.3	3	3
C203.4	3	3
C203.5	3	2
C203.5	3	2
C203	2.83	2.67

Course Name: **Advanced Data Structures;** Year of Study: **2015-16;** Year/Sem: **II/II; Regulation:R13**		
CC:212	**PSO 1**	**PSO 2**
C212.1	2	3
C212.2	3	3
C212.3	3	3
C212.4	3	3
C212.5	3	3
C212.6	3	2
C212	2.83	2.83

Course Name: **Compiler Design;** Year of Study: **2016-17;** Year/Sem: **III/I; Regulation:R13**		
CC:301	**PSO 1**	**PSO 2**
C301.1	2	2
C304.2	2	2
C301.3	3	3
C301.4	3	3
C301.5	3	3
C301.6	3	3
C301	2.67	2.67

Course Name: **Data Warehousing and Mining;** Year of Study: **2016-17;** Year/Sem: **III/II; Regulation:R13**		
CC:311	**PSO 1**	**PSO 2**
C311.1	3	2
C311.2	2	2

C311.3	3	3
C311.4	3	3
C311.5	3	3
C311.6	3	3
C311	2.83	2.67

Course Name: **Mobile Computing;** Year of Study: **2017-18;** Year/Sem: **IV/I; Regulation:R13**		
CC:403	**PSO 1**	**PSO 2**
C403.1	2	2
C403.2	2	2
C403.3	3	3
C403.4	3	3
C403.5	3	3
C403.6	3	3
C403	2.67	2.67

Course Name: **Cloud Computing;** Year of Study: **2017-18;** Year/Sem: **IV/I; Regulation:R13**		
CC:410	**PSO 1**	**PSO 2**
C410.1	2	2
C410.2	3	2
C410.3	3	3
C410.4	3	3
C410.5	3	3
C410.6	3	3
C410	2.83	2.33

Table B.3.1.2.e: CO-PSO Mapping for 2014 Admitted Batch

Admitted Batch 2015

Course Name: **Data Structures;** Year of Study: **2016-17;** Year/Sem: **II/I; Regulation:R13**		
CC:202	**PSO 1**	**PSO 2**
C202.1	2	2
C202.2	3	2
C202.3	3	3
C202.4	3	3
C202.5	3	3
C202.6	3	3
C202	2.83	2.67

Course Name: **Java Programming;** Year of Study: **2016-17;** Year/Sem: **II/II; Regulation:R13**		
CC:211	**PSO 1**	**PSO 2**
C211.1	3	3
C211.2	3	3
C211.3	3	3
C211.4	3	3
C211.5	3	2
C211.6	2	2
C211	2.83	2.67

Course Name: **Operating Systems;**Year of Study: **2017-18;** Year/Sem: **III/I; Regulation:R13**		
CC:305	**PSO 1**	**PSO 2**
C305.1	3	3
C305.2	3	3
C305.3	3	3
C305.4	2	3
C305.5	3	3
C305.6	3	2
C305	2.83	2.83

Course Name: **Software Engineering;** Year of Study: **2017-18;** Year/Sem: **III/II; Regulation:R13**		
CC:310	**PSO 1**	**PSO 2**
C310.1	2	3
C310.2	3	3
C310.3	3	3
C310.4	3	3
C310.5	3	3
C310.6	3	2
C310	2.83	2.83

Course Name: **Software Testing Methodologies;** Year of Study: **2018-19;** Year/Sem: **IV/I; Regulation:R13**		
CC:404	**PSO 1**	**PSO 2**
C404.1	3	2
C404.2	3	3
C404.3	3	3
C404.4	3	3
C404.5	3	3
C404.6	3	3
C404	3.00	2.83

Course Name: **Distributed Systems;** Year of Study: **2018-19;** Year/Sem: **IV/II; Regulation:R13**		
CC:411	**PSO 1**	**PSO 2**
C411.1	2	2
C411.2	3	2
C411.3	3	2
C411.4	3	2
C411.5	3	2
C411.6	3	2
C411	2.83	2.00

Table B.3.1.2.f: CO-PSO Mapping for 2015 Admitted Batch

3.1.3. Program level Course-PO matrix of all courses including first year courses (10)
The mapping of course outcomes and program outcomes are displayed in the below table

Course-POs Correlation Matrix for 2013 Admitted Batch:

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C102	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C103	3.00	2.17	2.00	2.00	2.00	2.00	2.00	2.00	-	-	-	2.00
C104	2.83	2.00	2.33	2.00	3.00	-	-	-	2.00	-	-	1.50
C105	-	-	2.00	-	2.00	2.33	3.00	2.25	2.00	-	2.00	3.00
C106	2.83	2.50	2.00	2.00	2.25	-	-	-	-	-	-	-
C107	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C108	2.67	2.00	-	2.00	2.00	-	2.00	-	2.00	-	-	2.00
C109	3.00	2.33	3.00	2.33	3.00	-	-	1.00	2.00	-	-	1.50
C110	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C111	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C112	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C113	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C114	-	-	-	-	-	2.00	1.75	3.00	1.00	1.00	2.00	2.50
C115	2.83	2.17	2.00	2.00	-	2.00	2.00	2.00	2.00	-	2.00	3.00
C116	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C117	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	-	2.00
C118	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	-	2.00
C119	2.50	2.33	1.00	-	2.33	-	-	-	1.00	-	-	-
C201	-	-	-	-	-	3.00	2.00	2.50	2.33	2.00	2.50	2.00
C202	2.33	2.33	2.33	1.67	2.00	2.00	-	-	1.67	-	2.00	2.00
C203	2.33	2.33	2.33	2.00	2.00	2.00	-	-	-	2.00	-	2.00

C204	2.33	2.33	-	2.83	2.00	-	-	-	-	-	3.00	2.00
C205	2.50	2.67	2.67	-	2.50	2.67	-	-	2.33	2.33	2.67	2.67
C206	2.33	2.33	2.50	2.00	2.33	-	-	2.00	2.00	-	-	2.00
C207	2.33	2.33	2.50	2.50	2.00	2.00	-	-	2.00	-	1.67	2.00
C208	2.33	2.67	2.67	2.67	2.50	2.67	-	-	2.67	2.00	2.67	2.67
C209	2.33	2.50	2.33	2.00	2.00	2.50	2.00	2.00	2.00	2.33	2.00	2.00
C210	2.33	2.67	-	2.83	-	-	-	-	-	-	-	2.00
C211	2.33	2.33	2.33	2.00	2.33	2.00	-	-	2.00	-	2.00	2.00
C212	2.33	2.33	2.33	2.50	2.00	-	-	-	2.00	-	2.00	2.00
C213	2.33	2.33	2.33	2.00	2.50	-	-	-	-	-	2.00	2.00
C214	2.33	2.33	2.33	2.67	-	-	-	-	1.67	2.00	-	1.67
C215	2.33	2.33	2.33	2.00	2.00	-	-	2.00	2.33	-	2.00	2.00
C216	2.33	2.33	2.50	2.00	2.00	2.00	-	-	2.33	-	2.00	2.00
C217	2.33	2.33	2.50	2.33	2.50	2.00	-	-	2.33	2.33	2.33	2.33
C301	2.33	2.33	2.33	2.33	-	-	-	-	2.00	-	-	2.00
C302	2.33	2.67	2.33	2.33	-	2.33	-	2.67	2.33	2.67	-	2.33
C303	2.33	2.33	2.33	2.33	2.67	-	-	-	-	-	2.33	-
C304	2.33	2.33	2.33	2.67	2.67	2.00	-	-	2.00	2.00	2.00	2.33
C305	2.33	2.33	2.33	2.33	2.33	-	-	-	2.00	2.50	-	2.00
C306	2.33	2.33	2.50	2.33	2.00	-	-	2.33	2.00	-	-	2.00
C307	2.33	2.33	2.67	2.33	2.33	2.00	-	2.33	2.00	2.00	-	2.00
C308	2.33	2.33	2.67	2.00	2.33	2.00	-	2.33	2.00	1.67	2.00	2.33
C309	2.33	2.67	2.33	2.33	2.33	2.50	2.00	2.00	2.00	2.33	2.00	2.00
C310	2.33	2.33	2.33	2.00	2.00	2.00	-	2.33	2.00	2.00	2.00	2.00
C311	2.33	2.33	2.33	2.67	2.67	-	-	-	2.00	-	-	2.33
C312	2.33	2.83	2.33	2.33	2.33	-	2.00	-	2.00	2.00	-	-
C313	2.33	2.33	2.33	2.67	2.00	2.00	-	2.33	2.00	2.33	2.00	1.67

C314	2.33	2.33	2.67	2.67	2.83	2.00	-	-	1.67	1.67	-	1.67
C315	-	-	-	-	-	3.00	2.33	2.33	2.33	2.00	2.00	2.00
C316	2.33	2.50	2.67	2.33	2.33	2.00	-	2.00	2.33	2.00	-	2.00
C317	2.33	2.50	2.67	2.00	2.00	2.00	-	2.00	2.33	2.00	2.00	2.00
C318	2.33	2.50	2.67	2.00	2.33	2.00	2.00	-	2.33	1.67	-	2.00
C401	2.33	2.33	2.33	2.33	-	2.33	-	2.00	-	-	2.00	2.00
C402	2.33	2.33	2.00	1.67	2.00	2.00	2.00	1.67	2.00	2.33	2.33	2.33
C403	2.33	2.33	2.00	2.00	-	1.67	1.67	1.67	-	-	-	2.00
C404	2.33	2.33	2.00	1.67	2.00	2.33	2.33	1.67	1.67	2.33	2.00	2.33
C405	2.33	2.33	2.33	2.00	2.33	2.00	2.00	-	2.00	-	2.00	2.33
C406	2.33	2.50	2.50	2.00	2.00	1.67	1.67	1.67	2.33	2.00	2.00	2.00
C407	2.33	2.50	2.33	2.00	2.00	-	-	2.00	-	-	-	-
C408	2.33	2.50	2.50	2.00	2.33	1.67	1.67	1.67	2.00	2.33	1.67	2.33
C409	2.33	2.50	2.67	2.00	2.33	-	2.00	2.00	2.00	-	2.00	2.00
C410	2.33	2.33	2.33	2.00	1.67	1.67	1.67	-	1.67	1.67	2.00	1.67
C411	2.33	2.33	2.33	2.33	2.00	2.00	-	-	2.00	-	2.00	2.00
C412	-	-	-	-	-	3.00	3.00	2.50	2.00	2.00	2.00	2.00
C413	2.33	2.33	2.33	2.33	2.00	-	-	-	-	-	-	-
C414	2.33	2.33	2.67	2.33	2.33	3.00	2.00	2.33	2.33	2.33	2.33	2.33

Table B.3.1.3.a: CO-PO Correlation matrix for 2013 Admitted Batch

Course-POs Correlation Matrix for 2014 Admitted Batch

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C102	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C103	3.00	2.17	2.00	2.00	2.00	2.00	2.00	2.00	-	-	-	2.00
C104	2.83	2.00	2.33	2.00	3.00	-	-	-	2.00	-	-	1.50
C105	-	-	2.00	-	2.00	2.33	3.00	2.25	2.00	-	2.00	3.00
C106	2.83	2.50	2.00	2.00	2.25	-	-	-	-	-	-	-
C107	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C108	2.67	2.00	-	2.00	2.00	-	2.00	-	2.00	-	-	2.00
C109	3.00	2.33	3.00	2.33	3.00	-	-	1.00	2.00	-	-	1.50
C110	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C111	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C112	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C113	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C114	-	-	-	-	-	2.00	1.75	3.00	1.00	1.00	2.00	2.50
C115	2.83	2.17	2.00	2.00	-	2.00	2.00	2.00	2.00	-	2.00	3.00
C116	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C117	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	-	2.00
C118	2.50	2.33	1.00	-	2.33	-	-	-	1.00	-	-	-
C119	-	-	-	-	-	3.00	2.00	2.50	2.33	2.00	2.50	2.00
C201	2.67	2.50	2.67	2.67	2.33	2.00	-	-	2.33	-	2.00	2.33
C202	2.67	2.50	2.33	2.33	2.33	2.00	-	-	-	2.00	-	2.50
C203	3.00	2.67	-	2.83	2.33	-	-	-	-	-	3.00	2.00
C204	2.67	2.67	2.67	-	2.50	2.67	-	-	2.33	2.33	2.67	2.67
C205	2.67	2.50	2.83	2.33	2.50	-	-	2.00	2.00	-	-	2.00

C206	2.67	2.50	2.67	2.33	2.50	2.50	-	-	2.00	-	2.33	2.00
C207	2.67	3.00	2.67	2.33	2.50	2.67	-	-	2.67	2.00	2.67	2.67
C208	2.67	3.00	3.00	2.50	3.00	2.83	2.00	2.67	3.00	2.33	2.33	2.50
C209	2.50	3.00	-	2.33	-	-	-	-	-	-	-	2.00
C210	2.50	2.50	2.33	2.00	2.33	2.00	-	-	2.00	-	2.00	2.00
C211	2.50	2.50	2.33	2.33	2.33	-	-	-	2.00	-	2.00	2.00
C212	2.50	2.50	2.33	2.00	2.50	-	-	-	-	-	2.00	2.00
C213	2.67	2.50	2.67	2.50	-	-	-	-	2.33	2.00	-	2.33
C214	2.50	2.67	2.50	2.33	2.50	-	-	2.00	2.33	-	2.00	2.00
C215	2.33	2.67	2.67	2.33	2.67	2.00	-	-	2.33	-	2.00	2.00
C216	2.33	2.67	2.83	2.50	2.67	2.00	-	-	2.33	2.33	2.33	2.33
C217	2.33	2.67	2.33	3.00	-	-	-	-	2.00	-	-	2.00
C301	2.83	2.67	2.67	2.33	-	2.33	-	2.67	2.33	2.67	-	2.33
C302	2.33	2.50	2.50	2.50	2.67	-	-	-	-	-	2.33	-
C303	2.33	2.33	2.67	2.50	2.67	2.00	-	-	2.00	2.00	2.00	2.33
C304	2.33	2.33	2.33	2.50	2.33	-	-	-	2.00	2.50	-	2.33
C305	2.33	2.50	3.00	2.33	2.33	-	-	2.33	2.00	-	-	2.00
C306	2.33	2.50	2.83	2.33	2.50	2.00	-	2.33	2.00	2.00	-	2.33
C307	2.33	2.50	3.00	2.67	2.67	2.00	-	2.33	2.00	1.67	2.00	2.33
C308	3.00	3.00	3.00	2.50	3.00	2.50	2.00	2.67	3.00	2.00	2.67	2.50
C309	2.67	2.50	2.33	2.33	2.50	2.00	-	2.33	2.67	2.00	2.50	2.33
C310	3.00	2.67	2.33	2.50	2.67	-	-	-	2.00	-	-	2.33
C311	2.50	2.83	2.33	2.67	2.33	-	2.00	-	2.50	2.00	-	-
C312	2.50	2.67	2.83	3.00	2.33	2.00	-	2.33	2.00	2.33	2.00	2.33
C313	2.50	2.67	2.67	3.00	3.00	2.00	-	-	3.00	1.67	-	2.50
C314	-	-	-	-	-	3.00	2.33	2.33	2.33	2.00	2.00	2.00
C315	2.33	3.00	2.67	2.33	2.33	2.00	-	2.00	2.33	2.00	-	2.00

C316	2.33	2.67	2.67	2.50	2.50	2.00	-	2.33	2.33	2.00	2.00	2.00
C317	2.33	3.00	3.00	3.00	2.83	2.00	2.00	-	2.33	1.67	-	2.00
C318	2.50	2.50	2.33	2.67	-	2.33	-	2.00	-	-	2.00	2.00
C401	2.33	2.83	2.67	2.50	2.50	2.00	2.00	2.00	2.33	2.33	2.50	2.33
C402	2.33	2.50	2.33	2.33	-	2.00	1.67	2.00	-	-	-	2.00
C403	2.33	2.50	2.50	2.33	2.00	2.33	2.33	2.00	2.33	2.00	2.33	2.33
C404	2.33	2.67	2.50	2.50	2.33	2.00	2.00	-	2.00	-	2.33	2.33
C405	2.33	2.67	2.67	2.33	2.67	2.00	1.67	2.00	2.33	2.00	2.00	2.00
C406	2.33	2.67	2.33	2.50	2.83	-	-	2.00	-	-	-	-
C407	2.33	2.67	2.50	2.33	2.50	2.00	1.67	2.67	2.50	2.33	2.50	2.33
C408	2.33	2.67	2.67	3.00	2.67	-	2.00	2.33	2.50	-	2.33	2.00
C409	2.33	2.33	2.33	2.00	2.33	2.00	1.67	-	2.33	1.67	2.00	2.50
C410	2.33	2.33	2.33	2.33	2.00	2.33	-	-	2.00	-	2.00	2.00
C411	-	-	-	-	-	3.00	3.00	2.50	2.50	2.00	2.00	2.00
C412	2.33	2.33	2.33	2.33	2.00	-	-	-	-	-	-	-
C413	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.67	3.00	2.00	3.00	3.00
C414	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00

Table B.3.1.3.b: CO-PO Correlation matrix for 2014 Admitted Batch

Course-POs Correlation Matrix for 2015 Admitted Batch

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C102	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C103	3.00	2.17	2.00	2.00	2.00	2.00	2.00	2.00	-	-	-	2.00
C104	2.83	2.00	2.33	2.00	3.00	-	-	-	2.00	-	-	1.50
C105	-	-	2.00	-	2.00	2.33	3.00	2.25	2.00	-	2.00	3.00
C106	2.83	2.50	2.00	2.00	2.25	-	-	-	-	-	-	-
C107	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C108	2.67	2.00	-	2.00	2.00	-	2.00	-	2.00	-	-	2.00
C109	3.00	2.33	3.00	2.33	3.00	-	-	1.00	2.00	-	-	1.50
C110	-	-	-	-	-	2.00	2.00	2.00	2.00	3.00	2.00	3.00
C111	3.00	2.33	2.00	2.00	-	2.00	2.00	2.00	-	-	2.00	3.00
C112	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C113	3.00	2.00	2.33	2.00	2.00	2.00	2.00	-	-	-	2.00	3.00
C114	-	-	-	-	-	2.00	1.75	3.00	1.00	1.00	2.00	2.50
C115	2.83	2.17	2.00	2.00	-	2.00	2.00	2.00	2.00	-	2.00	3.00
C116	-	-	-	-	-	2.00	2.00	2.00	3.00	3.00	2.00	3.00
C117	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	-	2.00
C118	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	-	2.00
C119	2.50	2.33	1.00	-	2.33	-	-	-	1.00	-	-	-
C201	-	-	-	-	-	3.00	2.00	3.00	2.33	2.00	2.50	2.99
C202	2.50	2.50	2.67	2.67	2.00	2.33	-	-	-	2.00	-	2.33
C203	2.50	2.50	2.50	2.33	2.00	2.33	-	-	-	2.00	-	2.50
C204	3.00	2.67	-	2.83	2.00	-	-	-	-	-	3.00	2.00
C205	2.67	2.67	2.67	-	2.50	2.67	-	-	2.33	2.50	2.67	2.67

C206	2.50	2.50	2.83	2.33	3.00	-	-	2.50	2.00	-	-	2.00
C207	2.50	2.50	2.67	2.83	3.00	2.50	-	-	2.00	-	2.33	2.00
C208	2.50	3.00	2.67	2.67	3.00	2.67	-	-	2.67	2.67	2.67	2.67
C209	3.00	3.00	3.00	2.50	2.50	2.83	-	2.83	3.00	2.33	2.67	2.50
C210	2.33	3.00	-	2.83	-	-	-	-	-	-	-	2.00
C211	2.33	2.50	2.50	2.00	2.33	2.00	-	2.00	2.00	-	2.00	2.00
C212	2.50	2.50	2.67	2.50	2.00	-	-	-	2.00	-	2.00	2.00
C213	2.50	2.50	2.67	2.00	2.50	-	-	-	-	-	2.00	2.00
C214	2.67	2.50	2.67	3.00	-	-	-	-	2.33	2.50	-	2.33
C215	2.67	2.67	2.83	2.83	3.00	-	-	2.83	2.33	-	2.00	2.00
C216	2.50	2.67	2.83	2.67	3.00	2.50	-	-	2.33	-	2.00	2.00
C217	2.50	2.67	2.83	2.50	3.00	2.50	-	-	2.33	2.33	2.33	2.33
C301	2.33	2.67	2.33	3.00	-	-	-	-	2.00	-	-	2.00
C302	2.50	2.67	2.67	2.33	-	2.33	-	2.83	2.33	2.67	-	2.33
C303	2.33	2.50	2.50	2.50	2.67	-	-	-	-	-	2.33	-
C304	2.33	2.33	2.67	3.00	2.67	2.50	-	-	2.00	2.00	2.00	2.33
C305	2.33	2.33	2.50	2.67	2.33	-	-	2.00	2.00	2.50	-	2.33
C306	2.67	2.50	3.00	3.00	3.00	-	-	2.83	2.33	-	-	2.00
C307	2.67	2.50	2.83	2.83	3.00	2.33	-	2.83	2.33	2.00	-	2.33
C308	2.67	2.50	3.00	3.00	3.00	2.33	-	2.83	2.50	2.00	2.67	2.33
C309	3.00	3.00	3.00	3.00	2.50	2.67	2.00	2.83	3.00	2.33	2.83	2.50
C310	2.67	2.50	2.50	2.67	2.00	2.50	-	2.83	2.67	2.00	2.83	2.33
C311	3.00	2.67	2.50	3.00	2.67	-	-	-	2.00	-	-	2.33
C312	2.50	2.83	2.50	2.83	2.33	-	2.00	-	2.50	2.00	-	-
C313	2.50	2.67	3.00	3.00	2.00	2.33	-	2.83	2.00	2.33	2.00	2.33
C314	2.50	2.67	2.67	3.00	2.83	2.67	-	-	3.00	2.00	-	2.50
C315	-	-	-	-	-	3.00	2.33	2.83	2.33	2.00	2.50	2.00

C316	2.50	3.00	2.83	2.83	2.83	2.33	-	2.83	2.50	2.00	-	2.00
C317	2.33	2.67	2.83	2.67	3.00	2.33	-	2.83	2.50	2.00	2.00	2.00
C318	2.33	3.00	3.00	3.00	3.00	2.33	2.00	-	2.67	2.00	-	2.00
C401	2.33	2.50	2.33	2.83	-	2.33	-	3.00	-	-	2.00	2.00
C402	2.33	2.83	2.67	2.50	2.00	2.00	2.00	2.83	2.50	2.33	2.50	2.33
C403	2.33	2.50	2.33	2.67	-	2.00	2.00	2.83	-	-	-	2.00
C404	2.33	2.50	2.50	2.67	2.00	2.33	-	3.00	2.33	2.33	2.67	2.33
C405	2.33	2.67	2.50	3.00	2.33	2.00	2.00		2.50		2.33	2.33
C406	2.67	2.67	3.00	2.67	3.00	2.00	2.33	2.83	2.33	2.00	2.33	2.00
C407	2.50	2.67	2.50	2.83	3.00	-	-	2.83	2.33	-	-	-
C408	2.50	2.67	2.50	2.67	3.00	2.00	2.00	2.83	2.50	2.33	2.83	2.33
C409	2.50	2.67	2.67	3.00	3.00	-	2.00	2.83	2.50	-	2.33	2.00
C410	2.33	2.33	2.33	2.00	2.00	2.00	2.33	-	2.33	2.00	2.00	2.50
C411	2.33	2.33	2.33	2.83	2.00	2.33	-	-	2.00	-	2.00	2.00
C412	-	-	-	-	-	3.00	3.00	2.50	2.50	2.33	2.00	2.00
C413	2.33	2.33	2.33	2.33	2.00	-	-	-	-	-	-	-
C414	3.00	3.00	3.00	3.00	2.33	3.00	2.33	3.00	3.00	2.33	3.00	3.00

Table B.3.1.3.c: CO-PO Correlation matrix for 2015 Admitted Batch

Program Level Course-PSO Matrix of all Courses INCLUDING First year courses for Admitted batch 2013

Course code	PSO 1	PSO 2
C101	2.00	-
C102	2.00	-
C103	2.00	-
C104	1.84	2.33
C105	2.00	-
C106	2.00	-
C107	2.00	-
C108	2.00	-
C109	2.33	2.33
C110	2.00	-
C111	2.00	-
C112	2.00	-
C113	2.00	-
C114	1.67	-
C115	2.00	-
C116	2.00	-
C117	2.00	-
C118	2.00	-
C119	2.33	1.84
C201	1.16	-
C202	2.83	2.33
C203	2.83	2.33
C204	1.33	-
C205	1.67	-
C206	2.83	2.83
C207	2.83	2.83
C208	2.83	-
C209	2.33	2.33
C210	2.00	-
C211	2.83	2.33
C212	2.83	2.83
C213	2.83	2.83
C214	1.67	1.67
C215	2.83	2.00
C216	2.83	2.33
C217	2.83	2.33
C301	2.00	2.00
C302	2.00	-

C303	2.00	2.33
C304	2.83	2.83
C305	2.83	2.83
C306	2.83	2.83
C307	2.83	2.83
C308	2.83	2.33
C309	2.33	2.33
C310	2.83	2.83
C311	2.83	2.33
C312	2.67	2.33
C313	2.67	2.83
C314	2.67	2.83
C315	1.50	-
C316	2.83	2.33
C317	2.83	2.00
C318	2.83	2.83
C401	2.83	2.83
C402	2.83	1.67
C403	2.67	2.00
C404	2.67	2.83
C405	2.83	2.83
C406	2.67	2.83
C407	-	2.83
C408	2.83	2.83
C409	2.83	2.83
C410	2.83	2.83
C411	2.83	2.33
C412	1.50	-
C413	2.67	2.00
C414	2.67	2.67

Table B.3.1.3.d: CO-PSO Mapping for 2013 Admitted Batch

Admitted batch 2014

Course code	PSO 1	PSO 2
C101	2.00	-
C102	2.00	-
C103	2.00	-
C104	2.33	2.33
C105	2.00	-
C106	2.00	-
C107	2.00	-
C108	2.00	-
C109	2.33	2.33
C110	2.00	-
C111	2.00	-
C112	2.00	-
C113	2.00	-
C114	1.67	-
C115	2.00	-
C116	2.00	-
C117	2.00	-
C118	2.00	-
C119	2.50	1.84
C201	2.00	-
C202	2.83	2.67
C203	2.83	2.67
C204	2.67	-
C205	2.00	-
C206	2.83	2.83
C207	2.83	2.83
C208	2.83	-
C209	2.50	2.33
C210	2.33	-
C211	2.83	2.67
C212	2.83	2.83
C213	2.83	2.83
C214	2.33	2.50
C215	2.83	2.67
C216	2.83	2.67
C217	2.83	2.67
C301	2.67	2.67
C302	2.67	-
C303	2.67	2.33
C304	2.83	2.83

C305	2.83	2.83
C306	2.83	2.83
C307	2.83	2.83
C308	2.83	2.67
C309	2.67	2.33
C310	2.83	2.83
C311	2.83	2.67
C312	2.67	2.67
C313	2.67	2.83
C314	2.67	2.83
C315	-	-
C316	2.83	2.33
C317	2.83	2.67
C318	2.83	2.83
C401	2.83	2.83
C402	2.83	2.33
C403	2.67	2.67
C404	2.67	2.83
C405	2.83	2.83
C406	2.67	2.83
C407	2.83	2.83
C408	2.83	2.67
C409	2.83	2.33
C410	2.83	2.33
C411	2.83	2.00
C412	-	-
C413	2.67	2.00
C414	2.83	2.00

Table B.3.1.3.e: CO-PSO Mapping for 2014 Admitted Batch

Admitted batch 2015:

Course code	PSO 1	PSO 2
C101	2.00	-
C102	2.00	-
C103	2.00	-
C104	2.33	2.33
C105	2.00	-
C106	2.00	-
C107	2.00	-
C108	2.00	-
C109	2.33	2.33
C110	2.00	-
C111	2.00	-

C112	2.00	-
C113	2.00	-
C114	1.67	-
C115	2.00	-
C116	2.00	-
C117	2.00	-
C118	2.00	-
C119	2.50	1.84
C201	2.00	-
C202	2.83	2.67
C203	2.83	2.67
C204	2.67	-
C205	2.50	-
C206	2.83	2.83
C207	2.83	2.83
C208	2.83	-
C209	3.00	2.67
C210	2.50	-
C211	2.83	2.67
C212	2.83	2.83
C213	2.83	2.83
C214	2.50	2.50
C215	2.83	2.67
C216	2.83	2.67
C217	2.83	2.67
C301	2.67	2.67
C302	2.67	-
C303	2.67	2.33
C304	2.83	2.83
C305	2.83	2.83
C306	2.83	2.83
C307	2.83	2.83
C308	2.83	2.67
C309	3.00	2.67
C310	2.83	2.83
C311	2.83	2.67
C312	2.67	2.67
C313	2.67	2.83
C314	2.67	2.83
C315	2.00	-
C316	2.83	2.33
C317	2.83	2.67
C318	2.83	2.83
C401	2.83	2.83
C402	2.83	2.33
C403	3.00	2.67
C404	3.00	2.83
C405	3.00	2.83

C406	3.00	2.83
C407	2.83	2.83
C408	2.83	2.67
C409	3.00	2.33
C410	2.83	2.33
C411	2.83	2.00
C412	2.00	-
C413	2.67	2.00
C414	3.00	3.00

Table B.3.1.3.f: CO-PSO Mapping for 2015 Admitted Batch

3.2. Attainment of Course Outcomes (50)

3.2.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams etc.)

Vignan's Institute of Engineering for Women is affiliated to JNTUK, Kakinada and hence follows R13 Regulations for students admitted from academic year 2013-14 to 2015-16.As per R13 Regulation, B.Tech program of JNTUK, the various assessment tools used to assess the evaluation of Course Outcomes are Mid Term examinations, Assignments, Online quiz examination, Project work, Seminars, Laboratory internal examination, Day-to-day evaluation of lab courses, End semester examinations of theory and lab etc.

The performance of every student is assessed by the evaluation of marks obtained in theory, laboratory, seminar and project examinations. The performance of a student in each semester shall be evaluated course–wise with a maximum of 100 marks for theory subject and 75 marks for the practical course. The project work shall be evaluated for 200 marks and 50 marks for seminar.

The attainment process for the evolution of course outcomes is based on by taking 80% of direct attainment and 20% of indirect attainment. The direct attainment includes evaluation of course outcome attainment through internal and external attainment like marks in theory courses, laboratory courses, project course and seminar. The weightage of indirect attainment is 20% taken from course end survey.

Direct Attainment:

Theory Courses:

- For theory courses, the distribution shall be 30 marks for internal evaluation and 70 marks for the end-examinations. For theory courses, during the semester there shall be 2 midterm exams.
- The weightage of internal marks is 30 consists of descriptive (15 Marks), assignment (05 Marks) (Theory, Design, Analysis, Simulation, Algorithms, Drawing, etc. as the case may be) Online quiz exam (10 Marks) which is conducted at the college level with 20 multiple choice question with a weightage of ½ mark each.
- The online quiz examination is for 20 minutes duration and the subjective examination is for 90 minutes of duration. Each subjective type test question paper shall contain 3 questions and all questions need to be answered.
- As the syllabus is framed for 6 units, the 1st mid examination (both online quiz and Subjective) is conducted from the syllabus of units 1-3 and second test is conducted from the syllabus of 4-6 units of each course in a semester.
- The end semester examination is conducted by JNTUK covering the topics of all units for 70 marks. Part – A contains a mandatory question (Brainstorming / Thought provoking / case study) for 22 marks. Part – B has 6 questions (one from each unit). The student has to answer 3 out of 6 questions in Part – B and carries a weightage of 16 marks each.

Laboratory Courses:

- For laboratory courses, there shall be continuous evaluation during the semester for 25 internal marks and 50 end examination marks.
- The internal 25 marks shall be awarded as follows: day-to-day evaluation (10 marks), record (5 marks) and the remaining (10 marks) will be awarded by conducting an internal laboratory exam.
- The end examination shall be conducted by the concerned faculty and external examiner appointed by JNTUK.

Project Work:

- Out of a total of 200 marks for the project work, 60 marks shall be for internal evaluation and 140 marks for the end semester examination. The end semester examination (Viva–Voice) shall be conducted by the committee which consists of an external examiner appointed by JNTUK, Head of the Department and project supervisor.

- The evaluation of project work shall be conducted at the end of the IV year. The internal evaluation shall be on the basis of three seminars given by each student on the topic of the project and evaluated by an internal committee.

Seminar Course:

- For the seminar, the student shall collect the information on a specialized topic and prepare a technical report, showing his/her understanding over the topic and submit to the department, which shall be evaluated by the evaluation committee consisting of Head of the department, seminar supervisor and a senior faculty member.
- The seminar report shall be evaluated for 50 marks. There shall be no external examination for the seminar.

Indirect Attainment:

- At the end of every semester, a course end survey is taken for every course from which indirect attainment is calculated.

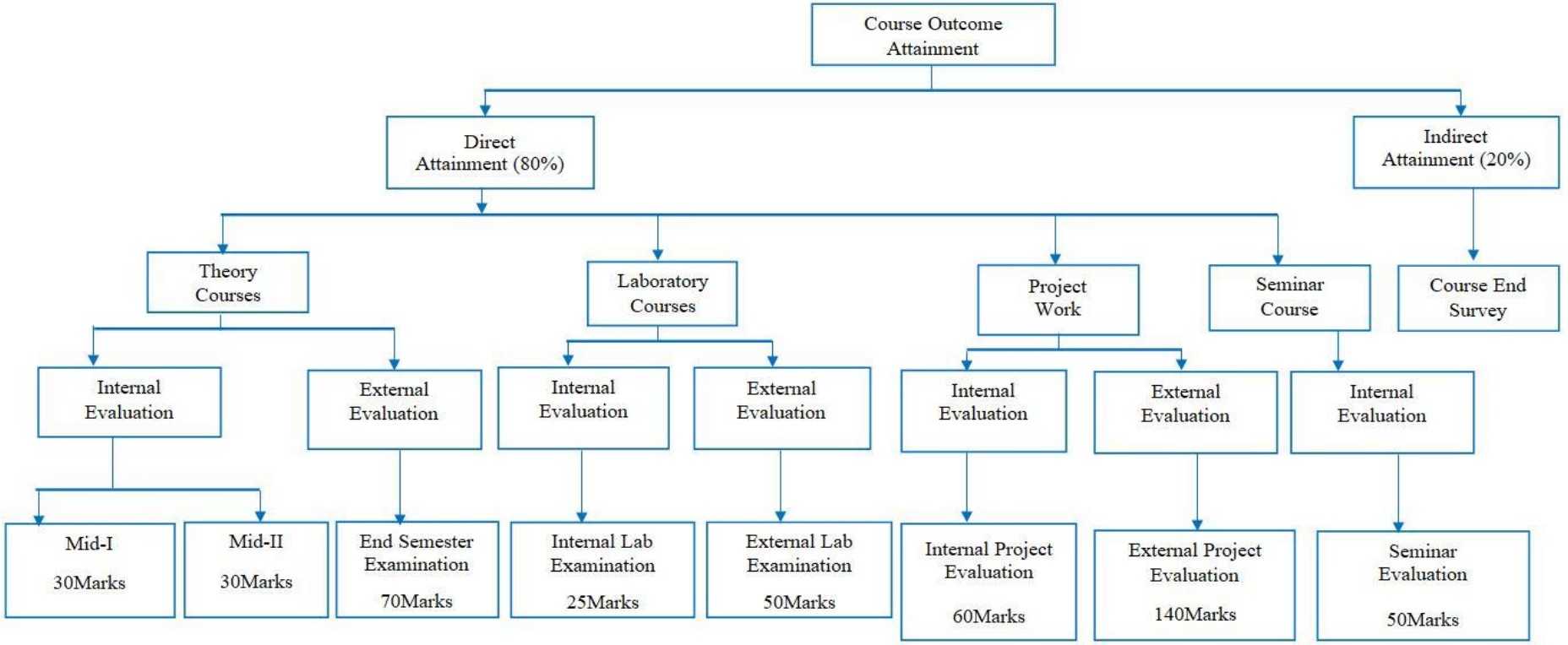


Figure B.3.2.1.a: Assessment Process for evolution of Course Outcomes

3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (40)

Attainment Calculation:

The overall attainment calculation of course outcomes of all courses comprises of two parts direct attainment and indirect attainment.

The tools used in direct assessment are the marks obtained in internal and end semester examination. The internal marks include mid marks (Descriptive, Quiz and Assignment), Laboratory marks (Day-to-day evaluation, Internal Marks and Record), Seminar and Project marks. The marks obtained in end semester examination are considered as external marks.

For every course, depending upon the course outcomes defined, 4 to 6 survey questions are prepared to collect the course end survey from the students, a tool in the indirect attainment.

The weightage of each CO is the sum of marks obtained in each question of descriptive exam, 1/3 part of online quiz marks and 1/3 part of each assignment marks respectively.

In direct attainment, a target value is fixed for calculating internal and end semester examination course attainment. The target value is converted into a percentage, which is achieved by the course as shown in Fig B.3.2.2.a. The target value fixed is 60% for internal examination and 40% to end semester examination.

A sample attainment calculation for the course Formal Language and Automata Theory is given below

DEPARTMENT OF COMPUTER SVIENCE AND ENGINEERING		
Course Name: Formal Language and Automata Theory	**Course Code: C214**	**Admitted Batch: 2013-17**
Year and Semester: II B TECH II SEM	**Regulation: R13**	**Academic Year:2014-15**
Course Coordinator: Mrs. Shaik Rahimunnisa		

		INTERNAL																
		MID 1								MID 2								
S. No	Reg. No.	Descriptive			Assignment			Online	Total (CO1: CO3)	Descriptive			Assignment			Online	Total (CO4: CO6)	University end exam (CO1:CO6)
		Q1	Q2	Q3	A1	A2	A3	Quiz 1 (CO1: CO3)		Q4	Q5	Q6	A1	A2	A3	Quiz (CO4: CO6)		
		CO1	CO2	CO3	CO1	CO2	CO3			CO4	CO5	CO6	CO4	CO5	CO6			
		2.5	2.5	2.5	2.5	2.5	2.5	5		2.5	2.5	2.5	2.5	2.5	2.5	5		
		5	5	5	5	5	5	10	30M	5	5	5	5	5	5	10	30M	70M
1	13NM1A0501				4	4	4		4	4	4	3	5	4	4	3	18	33
2	13NM1A0502	5	4	3	4	4	4	6	22	5	5	5	4	4	4	4	23	54
3	13NM1A0503	4	4	2	5	4	5	4	19	2	5	4	5	5	5	4	20	43
4	13NM1A0504	1	2	2	4	4	4	5	14	3	3	4	5	4	4	4	18	33
5	13NM1A0505	2	4	4	4	4	4	2	16	4	4	1	4	4	4	5	18	38
6	13NM1A0507	5	3	5	4	4	4	5	22	3	2	2	5	4	4	4	15	52
7	13NM1A0508	5	5	3	5	5	5	4	22	5	5	5	4	4	5	4	23	47
8	13NM1A0509	4	3	5	5	4	5	7	24	5	5	3	5	4	5	6	24	54
9	13NM1A0510	5	4	4	5	5	5	7	25	5	4	5	5	5	5	6	25	30
10	13NM1A0511	3	3	5	5	5	5	5	21	5	2	3	5	5	4	3	18	54
11	13NM1A0512	5	5	4	5	5	5	4	23	5	5	5	5	4	5	6	26	45
12	13NM1A0513	4	4	4	5	5	5	6	23	3	3	4	5	5	4	5	20	45

13	13NM1A0514	4	5	3	5	5	5	3	20	5	5	4	5	4	5	3	22	45
14	13NM1A0515	4	4	4	5	5	5	4	21	5	5	5	5	5	4	4	24	59
15	13NM1A0516	5	5	5	5	5	5	6	26	5	5	5	5	4	5	4	24	57
16	13NM1A0517	5	4	5	5	5	5	5	24	5	5	5	5	5	4	4	24	55
		Target for Internal Assessment MID 1							18.00	**Target for Internal Assessment MID 2**							18.00	
		Target							60%	**Target**							60%	
										University end Exam Target Mark								28

Table B.3.2.2.a: Sample internal marks assessment

The marks secured from the Mid Term Examinations, in theory, Laboratory Examinations, Project and Seminar are mapped with Course Outcome of Internal assessment as shown in Fig B 3.2.2.b.

The target level is obtained from the number of students who attained the set target. Attainment level calculated as below:

Attainment Level 1: 60% of students scoring more than target level marks or set attainment level in the final examination

Attainment Level 2: 70% of students scoring more than target level marks or set attainment level in the final examination

Attainment Level 3: 80% of students scoring more than target level marks or set attainment level in the final examination

Attainment value is “0” which means 60% of the total students didn’t achieve the target marks for a course.

Based upon the set target, the number of students attained for every course outcome is assessed and the attained levels are calculated.

		Internal						External			
		MID 1			MID 2						
S. No	Roll Number	Marks for CO1	Marks for CO2	Marks for CO3	Marks for CO4	Marks for CO5	Marks for CO6	University end exam CO1:CO6			
		10M	10M	10M	10M	10M	10M	70	Bench Mark	No. of Students	Attainment level
1	13NM1A0501	1.3	1.33	1.33	6.7	6.33	5.33	33	If 60 % students got more than Target	92	1
2	13NM1A0502	8.3	7.33	6.33	7.7	7.67	7.67	54	If 70 % students got more than Target	108	2
3	13NM1A0503	7.0	6.67	5.00	5.0	8.00	7.00	43	If 80 % students got more than Target	123	3
4	13NM1A0504	4.0	5.00	5.00	6.0	5.67	6.67	33	**Target for Internal Assessment**	**18.00**	
5	13NM1A0505	4.0	6.00	6.00	7.0	7.00	4.00	38	**Target is**	**60%**	
6	13NM1A0507	8.0	6.00	8.00	6.0	4.67	4.67	52	**Attained for COs**	**Students attained**	**Attained level**
7	13NM1A0508	8.0	8.00	6.00	7.7	7.67	8.00	47	Students attained CO1	118	2
8	13NM1A0509	8.0	6.67	9.00	8.7	8.33	6.67	54	Students attained CO2	115	2
9	13NM1A0510	9.0	8.00	8.00	8.7	7.67	8.67	30	Students attained CO3	99	1
10	13NM1A0511	6.3	6.33	8.33	7.7	4.67	5.33	54	Students attained CO4	103	1
11	13NM1A0512	8.0	8.00	7.00	8.7	8.33	8.67	45	Students attained CO5	103	1
12	13NM1A0513	7.7	7.67	7.67	6.3	6.33	7.00	45	Students attained CO6	105	1
13	13NM1A0514	6.7	7.67	5.67	7.7	7.33	6.67	45	University Exam Assessment	70	
14	13NM1A0515	7.0	7.00	7.00	8.0	8.00	7.67	59	Target is	40%	
15	13NM1A0516	8.7	8.67	8.67	8.0	7.67	8.00	57	Target Mark	28	
									No of students attended	154	
									No. of students attained	151	
									Students above the Target	**Target Students**	**Target level**
									University Exam	151	**3**

Indirect Assessment - Average for CO's					
CO1	CO2	CO3	CO4	CO5	CO6
2.565	**2.273**	**1.792**	**2.49**	**2.208**	**1.779**

Table B.3.2.2.b: Sample Course Outcomes Assessment

The course attainment is calculated based on 80% of direct attainment and 20% of indirect attainment as shown in Figure B.3.2.2.d.

Direct Attainment			Indirect Attainment	
	Internal	External	Feedback	
CO 1	2	3	CO 1	2.5649
CO 2	2	3	CO 2	2.2727
CO 3	1	3	CO 3	1.7922
CO 4	1	3	CO 4	2.49
CO 5	1	3	CO 5	2.2078
CO 6	1	3	CO 6	1.7792
Average	1.33	3	**Final Indirect Attainment**	2.184
Weightage	30%	70%		
Attainment	0.40	2.1		
Final Direct Attainment	2.50			
Weightage	80%		20%	
Attainment	2.00		0.44	
Course Attainment	**2.44**			

Table B.3.2.2.c: Sample Course Attainment Calculation

The process for calculating course attainment for the course Formal Language and Automata Theory (FLAT)

Case Study:

Year/Semester: II B.Tech II Semester

Admitted batch: 2013-17

Academic Year: 2014-15

Course Code: C214

Course Name: Formal Language and Automata Theory (FLAT)

Student Register Number: 13NM1A0507

Student Name: A. SRIVATSAVI

Year/Semester	II B.Tech II Semester
Admitted batch	2013-17
Academic Year	2014-15
Course Cod	C214
Course Name	Formal Language and Automata Theory

Student Register Number	13NM1A0507
Student Name	A. SRIVATSAVI

In Midterm Examination-1, marks secured by the student is

Question 1 marks: 5 out of 5

Question2 marks: 3 out of 5

Question3 marks: 5 out of 5.

Assignment 1 marks: 4

Assignment 2 marks: 4

Assignment 3 marks: 4

Online quiz marks: 5 out of 10

Question 1 marks	5 out of 5
Question 2 marks	3 out of 5
Question 3 marks	5 out of 5
Assignment 1 marks	4 out of 5
Assignment 2 marks	4 out of 5
Assignment 3 mark	4 out of 5
Online quiz marks	5 out of 10

For the course C214 (Formal Language and Automata Theory), there are 6 Course Outcomes, The weightage of each CO (CO1, CO2, CO3 considered for Mid-1) is taken equally from the average of online quiz marks and 1/3 part of each assignments marks added to each question of the descriptive exam respectively.

The marks obtained by the candidate corresponding to each course outcome are

CO1= Marks of Question1+ (Marks of Assignment 1)/3+ (Online quiz marks)/3.

CO1= 5+ (4)/3+ (5)/3=7.99

CO2= Marks of Question2+ (Marks of Assignment 2)/3+ (Online quiz marks)/3.

CO2=3+ (4)/3+ (5)/3=6.00

CO3= Marks of Question3+ (Marks of Assignment 3)/3+ (Online quiz marks)/3.

CO3=5+ (4)/3+ (5)/3=8.00

In Midterm Examination- 2, marks secured by the student is

Question 1 marks: 3 out of 5

Question 2 marks: 2 out of 5

Question 3 marks: 2 out of 5.

Assignment 4 marks: 5

Assignment 5 marks: 4

Assignment 6 marks: 4

Online quiz marks: 4 out of 10

Question 1 marks	3 out of 5
Question 2 marks	2 out of 5
Question 3 marks	2 out of 5
Assignment 1 marks	5 out of 5
Assignment 2 marks	4 out of 5
Assignment 3 mark	4 out of 5
Online quiz marks	4 out of 10

The weightage of each CO (CO4, CO5, CO6 considered for Mid-2) are taken equally from the average of online quiz marks and 1/3 part of each assignment marks added to each question of the descriptive exam respectively.

The process to assign marks for

CO4= Marks of Question1+ (Marks of Assignment 1)/3+ (Online quiz marks)/3.

CO4= 3+ (4)/3+ (5)/3

CO5= Marks of Question2+ (Marks of Assignment 2)/3+ (Online quiz marks)/3.

CO5=2+ (4)/3+ (5)/3

CO6= Marks of Question3+ (Marks of Assignment 3)/3+ (Online quiz marks)/3.

CO6=2+ (4)/3+ (5)/3

The student secured 52 marks in End semester examination.

For the direct attainment process in course attainment, the target value is fixed as 60% for both mid examinations.

The marks with respective course outcomes which are given above shown as figure B.3.2.2.b.

The process of marks evaluation and calculating the attainment levels is same for all the students.

There are 3 attainment levels.

If 60% of the students of the class attained the set target level, the attainment level is 1.

If 70% of the students of the class attained the set target level, the attainment level is 2.

If 80% of the students of the class attained the set target level, the attainment level is 3.

For the respective class strength, the numbers of students of different levels are

Attainment level-1: 92

Attainment level-2: 108

Attainment level-3: 123

In the course C214, the number of students achieved attainment levels for the Mid-1 is shown below.

Course Outcome	Attained students	Attainment Level
CO1	118	2
CO2	114	2
CO3	98	1

In the course C214, the number of students achieved attainment levels for the mid-2 is shown below.

Course Outcome	Attained students	Attainment Level
CO4	103	1
CO5	103	1
CO6	105	1

For external end examination, the target value is 40% and the number of students attained the target mark is 151. Hence, external examination attainment level is 3.

The indirect attainment is calculated by taking the course end survey for all the courses from the students. The course end survey is taken using the 4 parameter values as specified below:

Strongly agree- 3

Agree- 2

Neutral- 1

Disagree- 0

The average of attainment levels of CO1, CO2, CO3, CO4, CO5 & CO6 give the internal attainment level. As prescribed by the University, the weightage for internal and external is 30% and 70% respectively.

The average of internal assessment is : 1.33

The average of external assessment is : 3

Internal weightage attainment (30%) is : 0.4

External weightage attainment (70%) is : 2.1

Final Attainment Value is : 2.5

Direct attainment = 80 % of final attainment : 2

Indirect attainment is calculated from 20% of the average of course end survey.

Indirect attainment = 0.20 * 2.65 = 0.53

Hence,

Course attainment= Direct Attainment+ Indirect attainment

= 2+0.53 **=2.53**

Admitted Batch 2013

After fixing the target level for individual courses, based on the procedure described above, course attainment for outgoing batches CAY, CAY m1, CAY m2 are presented below

Course	Course Name	Direct Attainment	Indirect Attainment	Course Attainment
C101	English – I	2.40	0.53	2.93
C102	Mathematics – I	2.16	0.57	2.73
C103	Engineering Chemistry	2.12	0.53	2.65
C104	Computer Programming	2.40	0.57	2.97
C105	Environmental Studies	2.04	0.57	2.61
C106	Engineering Mechanics	0.44	0.57	1.01
C107	English - Communication Skills Lab - I	2.40	0.53	2.93
C108	Engineering Chemistry Laboratory	2.40	0.57	2.97
C109	C Programming Lab	2.40	0.57	2.97
C110	English – II	2.40	0.57	2.97
C111	Mathematics – III	2.08	0.53	2.61
C112	Engineering Physics	2.28	0.57	2.85
C113	Mathematics – II	1.96	0.53	2.49
C114	Professional Ethics and Human Values	2.40	0.44	2.84
C115	Engineering Drawing	2.40	0.50	2.9
C116	English - Communication Skills Lab - II	2.40	0.53	2.93
C117	Engineering Physics Lab	2.40	0.53	2.93
C119	Engg. Workshop & IT Workshop	2.40	0.53	2.93
C201	Managerial Economics and Financial Analysis	1.88	0.53	2.41

C202	Data Structures	2.04	0.50	2.54
C203	Object Oriented Programming through C++	1.84	0.53	2.37
C204	Mathematical Foundations of Computer Science	2.00	0.50	2.50
C205	Digital Logic Design	1.88	0.57	2.45
C206	Object Oriented Programming Lab	2.40	0.53	2.93
C207	Data Structures Lab	2.40	0.53	2.93
C208	Digital Logic Design Lab	2.4	0.53	2.93
C209	Seminar – I	2.40	0.53	2.93
C210	Probability and statistics	2.04	0.50	2.54
C211	Java Programming	1.92	0.57	2.49
C212	Advanced Data Structures	2.16	0.53	2.69
C213	Computer Organization	1.32	0.53	1.85
C214	Formal Languages and Automata Theory	2.00	0.53	2.53
C215	Advanced Data Structures Lab	2.40	0.53	2.93
C216	Java Programming Lab	2.40	0.53	2.93
C217	Free Open Source Software (FOSS) Lab	2.40	0.57	2.97
C301	Compiler Design	1.84	0.57	2.41
C302	Data Communication	1.72	0.53	2.25
C303	Principles of Programming Languages	2.24	0.53	2.77
C304	Database Management Systems	1.40	0.57	1.97
C305	Operating Systems	1.72	0.53	2.25
C306	Compiler Design Lab	2.40	0.53	2.93
C307	Operating System Lab	2.40	0.57	2.97
C308	Database Management Systems Lab	2.40	0.53	2.93
C309	Seminar – II	2.13	0.50	2.63
C310	Software Engineering	2.00	0.53	2.53
C311	Data Warehousing and Mining	1.80	0.53	2.33
C312	Computer Networks	1.84	0.53	2.37
C313	Design and Analysis of Algorithms	1.88	0.57	2.45
C314	Web Technologies	1.96	0.57	2.53
C315	IPR & Patents	1.92	0.50	2.42

C316	Computer Networks Lab	2.40	0.53	2.93
C317	Software Engineering Lab	2.40	0.53	2.93
C318	Web Technologies Lab	2.40	0.53	2.93
C401	Cryptography and Network Security	1.68	0.53	2.21
C402	UML & Design Patterns	1.72	0.53	2.25
C403	Mobile Computing	2.00	0.53	2.53
C404	Software Testing Methodologies	1.88	0.53	2.41
C405	Hadoop and Big Data	1.88	0.57	2.45
C406	UML & Design Patterns Lab	2.40	0.53	2.93
C407	Mobile Application Development Lab	2.40	0.53	2.93
C408	Software Testing Lab	2.40	0.53	2.93
C409	Hadoop &BigData Lab	2.40	0.53	2.93
C410	Cloud Computing	1.80	0.53	2.33
C411	Distributed Systems	1.96	0.53	2.49
C412	Management Science	2.04	0.53	2.57
C413	Human Computer Interaction	1.76	0.53	2.29
C414	Project	2.40	0.57	2.97

Table B.3.2.2.d: Course-PO Attainment for 2013 Admitted Batch

Admitted Batch 2014

Course	Course Name	Direct Attainment	Indirect Attainment	Course Attainment
C101	English – I	2.36	0.53	2.89
C102	Mathematics – I	2.00	0.57	2.57
C103	Engineering Chemistry	2.04	0.53	2.57
C104	Computer Programming	2.00	0.57	2.57
C105	Environmental Studies	1.92	0.57	2.49
C106	Engineering Mechanics	2.08	0.57	2.65
C107	English - Communication Skills Lab - I	2.4	0.53	2.93
C108	Engineering Chemistry Laboratory	2.4	0.57	2.97
C109	C Programming Lab	2.4	0.57	2.97
C110	English – II	2.2	0.57	2.77

C111	Mathematics - III	2.2	0.53	2.73
C112	Engineering Physics	2.24	0.57	2.81
C113	Mathematics – II	1.92	0.53	2.45
C114	Professional Ethics and Human Values	2.24	0.53	2.77
C115	Engineering Drawing	2.28	0.53	2.81
C116	English - Communication Skills Lab - II	2.4	0.53	2.93
C117	Engineering Physics Lab	2.4	0.53	2.93
C119	Engg. Workshop & IT Workshop	2.4	0.53	2.93
C201	Managerial Economics and Financial Analysis	1.88	0.53	2.41
C202	Data Structures	1.68	0.5	2.18
C203	Object Oriented Programming through C++	1.68	0.53	2.21
C204	Mathematical Foundations of Computer Science	1.92	0.5	2.42
C205	Digital Logic Design	1.76	0.57	2.33
C206	Object Oriented Programming Lab	2.4	0.53	2.93
C207	Data Structures Lab	2.4	0.53	2.93
C208	Digital Logic Design Lab	1.88	0.53	2.41
C209	Seminar – I	2.4	0.53	2.93
C210	Probability and statistics	2.08	0.5	2.58
C211	Java Programming	1.8	0.57	2.37
C212	Advanced Data Structures	1.8	0.53	2.33
C213	Computer Organization	1.88	0.53	2.41
C214	Formal Languages and Automata Theory	1.84	0.53	2.37
C215	Advanced Data Structures Lab	2.4	0.53	2.93
C216	Java Programming Lab	2.4	0.53	2.93
C217	Free Open Source Software (FOSS) Lab	2.4	0.57	2.97
C301	Compiler Design	1.92	0.57	2.49
C302	Data Communication	1.8	0.53	2.33
C303	Principles of Programming Languages	1.96	0.53	2.49
C304	Database Management Systems	1.4	0.57	1.97
C305	Operating Systems	1.84	0.53	2.37
C306	Compiler Design Lab	2.4	0.53	2.93

C307	Operating System Lab	2.4	0.57	2.97
C308	Database Management Systems Lab	2.4	0.53	2.93
C309	Seminar – II	2.13	0.53	2.66
C310	Software Engineering	1.44	0.53	1.97
C311	Data Warehousing and Mining	1.88	0.53	2.41
C312	Computer Networks	2.08	0.53	2.61
C313	Design and Analysis of Algorithms	2.28	0.57	2.85
C314	Web Technologies	1.48	0.57	2.05
C315	IPR & Patents	2.24	0.5	2.74
C316	Computer Networks Lab	2.4	0.53	2.93
C317	Software Engineering Lab	2.4	0.53	2.93
C318	Web Technologies Lab	2.4	0.53	2.93
C401	Cryptography and Network Security	1.88	0.53	2.41
C402	UML & Design Patterns	1.92	0.53	2.45
C403	Mobile Computing	2.08	0.53	2.61
C404	Software Testing Methodologies	1.84	0.53	2.37
C405	Hadoop and Big Data	1.96	0.57	2.53
C406	UML & Design Patterns Lab	2.4	0.53	2.93
C407	Mobile Application Development Lab	2.4	0.53	2.93
C408	Software Testing Lab	2.4	0.53	2.93
C409	Hadoop &BigData Lab	2.4	0.53	2.93
C410	Cloud Computing	1.76	0.53	2.29
C411	Distributed Systems	1.76	0.53	2.29
C412	Management Science	1.8	0.53	2.33
C413	Human Computer Interaction	1.72	0.53	2.25
C414	Project	2.4	0.57	2.97

Table B.3.2.2.e: Course-PO Attainment for 2014 Admitted Batch

Admitted Batch 2015

Course	Course Name	Direct Attainment	Indirect Attainment	Course Attainment
C101	English – I	1.92	0.53	2.45

C102	Mathematics – I	2.16	0.57	2.73
C103	Engineering Chemistry	2.16	0.53	2.69
C104	Computer Programming	2.12	0.57	2.69
C105	Environmental Studies	1.96	0.57	2.53
C106	Engineering Mechanics	2.20	0.57	2.77
C107	English - Communication Skills Lab - I	2.40	0.53	2.93
C108	Engineering Chemistry Laboratory	2.40	0.57	2.97
C109	C Programming Lab	2.40	0.57	2.97
C110	English – II	2.40	0.57	2.97
C111	Mathematics – III	2.28	0.53	2.81
C112	Engineering Physics	2.32	0.57	2.89
C113	Mathematics – II	2.28	0.53	2.81
C114	Professional Ethics and Human Values	2.40	0.44	2.84
C115	Engineering Drawing	2.20	0.50	2.70
C116	English - Communication Skills Lab - II	2.40	0.49	2.89
C117	Engineering Physics Lab	2.40	0.49	2.89
C119	Engg. Workshop & IT Workshop	2.40	0.49	2.89
C201	Managerial Economics and Financial Analysis	1.64	0.53	2.17
C202	Data Structures	2.28	0.50	2.78
C203	Object Oriented Programming through C++	2.24	0.53	2.77
C204	Mathematical Foundations of Computer Science	1.76	0.50	2.26
C205	Digital Logic Design	1.92	0.57	2.49
C206	Object Oriented Programming Lab	2.40	0.53	2.93
C207	Data Structures Lab	2.40	0.53	2.93
C208	Digital Logic Design Lab	2.40	0.53	2.93
C209	Seminar – I	2.40	0.53	2.93
C210	Probability and statistics	2.20	0.50	2.70
C211	Java Programming	2.12	0.53	2.65
C212	Advanced Data Structures	2.04	0.53	2.57
C213	Computer Organization	2.00	0.53	2.53
C214	Formal Languages and Automata Theory	2.28	0.53	2.81

C215	Advanced Data Structures Lab	2.40	0.53	2.93
C216	Java Programming Lab	2.40	0.53	2.93
C217	Free Open Source Software (FOSS) Lab	2.40	0.57	2.97
C301	Compiler Design	2.20	0.57	2.77
C302	Data Communication	2.24	0.53	2.77
C303	Principles of Programming Languages	2.20	0.53	2.73
C304	Database Management Systems	2.32	0.57	2.89
C305	Operating Systems	1.52	0.53	2.05
C306	Compiler Design Lab	2.40	0.53	2.93
C307	Operating System Lab	2.40	0.57	2.97
C308	Database Management Systems Lab	2.40	0.53	2.93
C309	Seminar – II	2.40	0.50	2.90
C310	Software Engineering	2.12	0.53	2.65
C311	Data Warehousing and Mining	1.96	0.53	2.49
C312	Computer Networks	2.12	0.53	2.65
C313	Design and Analysis of Algorithms	2.28	0.57	2.85
C314	Web Technologies	2.32	0.57	2.89
C315	IPR & Patents	2.04	0.31	2.35
C316	Computer Networks Lab	2.28	0.53	2.81
C317	Software Engineering Lab	2.40	0.53	2.93
C318	Web Technologies Lab	2.40	0.53	2.93
C401	Cryptography and Network Security	2.04	0.53	2.57
C402	UML & Design Patterns	1.88	0.53	2.41
C403	Mobile Computing	1.96	0.53	2.49
C404	Software Testing Methodologies	2.00	0.53	2.53
C405	Hadoop and Big Data	1.96	0.57	2.53
C406	UML & Design Patterns Lab	2.40	0.53	2.93
C407	Mobile Application Development Lab	2.40	0.53	2.93
C408	Software Testing Lab	2.40	0.53	2.93
C409	Hadoop & Big Data Lab	2.40	0.53	2.93
C410	Cloud Computing	1.92	0.53	2.45
C411	Distributed Systems	1.84	0.53	2.37

C412	Management Science	1.96	0.50	2.46
C413	Human Computer Interaction	1.96	0.50	2.46
C414	Project	2.40	0.57	2.97

Table B.3.2.2.f: Course-PO Attainment for 2015 Admitted Batch

3.3. Attainment of Program Outcomes and Program Specific Outcomes (50)

3.3.1. Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

The Program Outcome attainment constitutes Direct Attainment and Indirect Attainment. The direct attainment is a process of calculating attainment through the marks obtained by the students in all the courses. Indirect attainment is a process of collecting feedbacks from stake holders on the program outcomes as shown in Fig B.3.3.1.

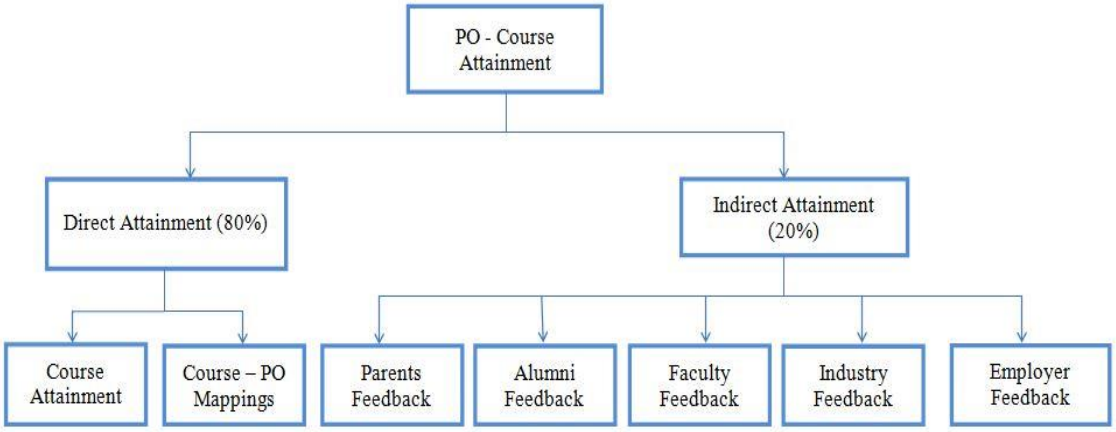


Figure B.3.3.1: Assessment tools for calculating PO – Course attainments

Direct Attainment:

The direct attainment of program outcome is the collection of all the course attainments with the assessment process as depicted above:

1. Course-PO mapping tables, as shown in Table B.3.1.3., for all the courses are collected from the respective course coordinators.
2. Course attainment values, as shown in Table B.3.2.1., for all the courses are collected from the respective course coordinators.
3. From the above values, Course-PO attainment values are calculated using,

$$\text{Course} - \text{PO attainment} = \frac{(\text{Course to PO mapping}) * (\text{Course attainment})}{3}$$

4. The average of all these attainments with respect to individual POs is calculated, which gives the direct PO attainment.

Indirect Attainment:

Different surveys are conducted on the program outcomes. Feedbacks are taken from the stakeholder like parents, alumni, faculty, industry, employer etc. Opinions of these stakeholders are collected in a grading scale of 3 (strongly agreeing), 2 (moderately agreeing) and 1 (weakly agreeing).

PO attainment calculation:

1. For the final PO attainment values, 80% of the direct attainment value and 20% of indirect attainment value are considered.
2. The similar procedure is followed for the calculation of PSO attainment.

3.3.2 Provide results of evaluation of each PO & PSO (40)

The Program Outcomes and Program Specific Outcomes are displayed for CAY, CAYm1, CAYm2 are below.

PO – Course Attainment 2013

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	1.95	1.95	1.95	1.95	2.93	1.95	2.93
C102	2.73	2.12	1.82	1.82	-	1.82	1.82	1.82	-	-	1.82	2.73
C103	2.65	1.91	1.77	1.77	1.77	1.77	1.77	1.77	-	-	-	1.77
C104	2.81	1.98	2.31	1.98	2.97	-	-	-	1.98	-	-	1.49
C105	-	-	1.74	-	-	1.35	-	-	0.90	-	-	0.90
C106	0.95	0.84	0.67	0.67	0.76	-	-	-	-	-	-	-
C107	-	-	-	-	-	1.95	1.95	1.95	2.93	2.93	1.95	2.93
C108	2.64	1.98		1.98	1.98	-	1.98	-	1.98	-	-	1.98
C109	2.97	2.31	2.97	2.31	2.97	-	-	0.99	1.98	-	-	1.49
C110	-	-	-	-	-	1.98	1.98	1.98	1.98	2.97	1.98	2.97
C111	2.61	2.03	1.74	1.74	-	1.74	1.74	1.74	-	-	1.74	2.61
C112	2.85	1.90	2.22	1.90	1.90	1.90	1.90	-	-	-	1.90	2.85
C113	2.49	1.66	1.94	1.66	1.66	1.66	1.66	-	-	-	1.66	2.49
C114	-	-	-	-	-	1.89	1.66	2.84	0.95	0.95	1.89	2.37
C115	2.74	2.09	1.93	1.93	-	1.93	1.93	1.93	1.93	-	1.93	2.90
C116	-	-	-	-	-	1.95	1.95	1.95	2.93	2.93	1.95	2.93
C117	2.93	1.95	1.95	1.95	1.95	1.95	1.95	1.95	2.93	2.93	-	1.95
C119	2.44	2.28	0.98	-	2.28	-	-	-	0.98	-	-	-
C201	-	-	-	-	-	2.41	1.61	2.01	1.87	1.61	2.01	1.61
C202	1.97	1.53	1.19	0.66	0.44	0.29	-	-	-	-	-	-
C203	1.84	1.84	1.84	1.58	1.58	1.58	-	-	-	1.58	-	1.58

C204	1.94	1.94	-	2.36	1.67	-	-	-	-	-	2.50	1.67
C205	2.04	2.18	2.18	-	2.04	2.18	-	-	1.91	1.91	2.18	2.18
C206	2.28	2.28	2.44	1.95	2.28	-	-	1.95	1.95	-	-	1.95
C207	2.28	2.28	2.44	2.44	1.95	1.95	-	-	1.95	-	1.63	1.95
C208	2.28	2.61	2.61	2.61	2.44	2.61	-	-	2.61	1.95	2.61	2.61
C209	2.28	2.44	2.28	1.95	1.95	2.44	1.95	1.95	1.95	2.28	1.95	1.95
C210	1.97	2.26	-	2.40	-	-	-	-	-	-	-	1.69
C211	1.93	1.93	1.93	1.66	1.93	1.66	-	-	1.66	-	1.66	1.66
C212	2.09	2.09	2.09	2.24	1.79	-	-	-	1.79	-	1.79	1.79
C213	1.44	1.44	1.44	1.23	1.54	-	-	-	-	-	1.23	1.23
C214	1.96	1.96	1.96	2.25	-	-	-	-	1.41	1.69	-	1.41
C215	2.28	2.28	2.28	1.95	1.95	-	-	-	2.28	-	1.95	1.95
C216	2.28	2.28	2.44	1.95	1.95	1.95	-	-	2.28	-	1.95	1.95
C217	2.31	2.31	2.48	2.31	2.48	1.98	-	-	2.31	2.31	2.31	2.31
C301	1.87	1.87	1.87	1.87	-	-	-	-	1.61	-	-	1.61
C302	1.75	2.00	1.75	1.75	-	1.75	-	2.00	1.75	2.00	-	1.75
C303	2.15	2.15	2.15	2.15	2.47	-	-	-	-	-	2.15	-
C304	1.53	1.53	1.53	1.75	1.75	1.31	-	-	1.31	1.31	1.31	1.53
C305	1.75	1.75	1.75	1.75	1.75	-	-	-	1.50	1.88	-	1.50
C306	2.28	2.28	2.44	2.28	1.95	-	-	2.28	1.95	-	-	1.95
C307	2.31	2.31	2.64	2.31	2.31	1.98	-	2.31	1.98	1.98	-	1.98
C308	2.28	2.28	2.61	1.95	2.28	1.95	-	2.28	1.95	1.63	1.95	2.28
C309	2.04	2.34	2.04	2.04	2.04	2.19	1.75	1.75	1.75	2.04	1.75	1.75
C310	1.96	1.96	1.96	1.69	1.69	1.69	-	1.96	1.69	1.69	1.69	1.69
C311	1.81	1.81	1.81	2.07	2.07	-	-	-	1.55	-	-	1.81
C312	1.84	2.24	1.84	1.84	1.84	-	1.58	-	1.58	1.58	-	-
C313	1.90	1.90	1.90	2.18	1.63	1.63	-	1.90	1.63	1.90	1.63	1.36

C314	1.96	1.96	2.25	2.25	2.39	1.69	-	-	1.41	1.41	-	1.41
C315	-	-	-	-	-	2.42	1.88	1.88	1.88	1.61	1.61	1.61
C316	2.28	2.44	2.61	2.28	2.28	1.95	-	1.95	2.28	1.95	-	1.95
C317	2.28	2.44	2.61	1.95	1.95	1.95	-	1.95	2.28	1.95	1.95	1.95
C318	2.28	2.44	2.61	1.95	2.28	1.95	1.95	-	2.28	1.63	-	1.95
C401	1.72	1.72	1.72	1.72	-	1.72	-	1.47	-	-	1.47	1.47
C402	1.75	1.75	1.50	1.25	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.75
C403	1.96	1.96	1.69	1.69	-	1.41	1.41	1.41	-	-	-	1.69
C404	1.87	1.87	1.61	1.34	1.61	1.87	1.87	1.34	1.34	1.87	1.61	1.87
C405	1.90	1.90	1.90	1.63	1.90	1.63	1.63	-	1.63	-	1.63	1.90
C406	2.28	2.44	2.44	1.95	1.95	1.63	1.63	1.63	2.28	1.95	1.95	1.95
C407	2.28	2.44	2.28	1.95	1.95	-	-	1.95	-	-	-	-
C408	2.28	2.44	2.44	1.95	2.28	1.63	1.63	1.63	1.95	2.28	1.63	2.28
C409	2.28	2.44	2.61	1.95	2.28	-	1.95	1.95	1.95	-	1.95	1.95
C410	1.81	1.81	1.81	1.55	1.30	1.30	1.30	-	1.30	1.30	1.55	1.30
C411	1.93	1.93	1.93	1.93	1.66	1.66	-	-	1.66	-	1.66	1.66
C412	-	-	-	-	-	2.57	2.57	2.14	1.71	1.71	1.71	1.71
C413	1.78	1.78	1.78	1.78	1.53	-	-	-	-	-	-	-
C414	2.31	2.31	2.64	2.31	2.31	2.97	1.98	2.31	2.31	2.31	2.31	2.31
Direct Attainment (100%)	2.14	2.06	2.04	1.90	1.94	1.85	1.81	1.89	1.87	1.96	1.85	1.95
Direct Attainment (80%)	1.72	1.64	1.63	1.52	1.55	1.48	1.45	1.51	1.50	1.57	1.48	1.56
Indirect Attainment (100%)	2.67	2.83	2.83	2.33	2.33	2.67	2	2.4	2.6	2.33	2.67	2.33

Indirect Attainment (20%)	0.53	0.57	0.57	0.47	0.47	0.53	0.40	0.48	0.52	0.47	0.53	0.47
PO Attainment	2.25	2.21	2.20	1.99	2.02	2.02	1.85	1.99	2.02	2.04	2.01	2.02

Table B.3.3.2.a: PO-Course Attainment for 2013 Admitted Batch

PO- Course Attainment 2014

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	1.93	1.93	1.93	1.93	2.89	1.93	2.89
C102	2.57	2.00	1.71	1.71	-	1.71	1.71	1.71	-	-	1.71	2.57
C103	2.57	1.86	1.71	1.71	1.71	1.71	1.71	1.71	-	-	-	1.71
C104	2.43	1.71	2.00	1.71	2.57	-	-	-	1.71	-	-	1.29
C105	-	-	1.66	-	1.66	1.94	2.49	1.87	1.66	-	1.66	2.49
C106	2.50	2.21	1.77	1.77	1.99	-	-	-	-	-	-	-
C107	-	-	-	-	-	1.95	1.95	1.95	2.93	2.93	1.95	2.93
C108	2.64	1.98	-	1.98	1.98	-	1.98	-	1.98	-	-	1.98
C109	2.97	2.31	2.97	2.31	2.97	-	-	0.99	1.98	-	-	1.49
C110	-	-	-	-	-	1.85	1.85	1.85	1.85	2.77	1.85	2.77
C111	2.73	2.12	1.82	1.82	-	1.82	1.82	1.82	-	-	1.82	2.73
C112	2.81	1.87	2.19	1.87	1.87	1.87	1.87	-	-	-	1.87	2.81
C113	2.45	1.63	1.91	1.63	1.63	1.63	1.63	-	-	-	1.63	2.45
C114	-	-	-	-	-	1.85	1.62	2.77	0.92	0.92	1.85	2.31
C115	2.65	2.03	1.87	1.87	-	1.87	1.87	1.87	1.87	-	1.87	2.81
C116	-	-	-	-	-	1.95	1.95	1.95	2.93	2.93	1.95	2.93
C117	2.93	1.95	1.95	1.95	1.95	1.95	1.95	1.95	2.93	2.93	-	1.95

C119	2.44	2.28	0.98	-	2.28	-	-	-	0.98	-	-	-
C201	-	-	-	-	-	2.41	1.61	2.01	1.87	1.61	2.01	1.61
C202	1.94	1.82	1.94	1.94	1.69	1.45	-	-	1.69	-	1.45	1.69
C203	1.97	1.84	1.72	1.72	1.72	1.47	-	-	-	1.47	-	1.84
C204	2.42	2.15	-	2.28	1.88	-	-	-	-	-	2.42	1.61
C205	2.07	2.07	2.07	-	1.94	2.07	-	-	1.81	1.81	2.07	2.07
C206	2.61	2.44	2.76	2.28	2.44	-	-	1.95	1.95	-	-	1.95
C207	2.61	2.44	2.61	2.28	2.44	2.44	-	-	1.95	-	2.28	1.95
C208	2.14	2.41	2.14	1.87	2.01	2.14	-	-	2.14	1.61	2.14	2.14
C209	2.61	2.93	2.93	2.44	2.93	2.76	1.95	2.61	2.93	2.28	2.28	2.44
C210	2.15	2.58	-	2.00	-	-	-	-	-	-	-	1.72
C211	1.98	1.98	1.84	1.58	1.84	1.58	-	-	1.58	-	1.58	1.58
C212	1.94	1.94	1.81	1.81	1.81	-	-	-	1.55	-	1.55	1.55
C213	2.01	2.01	1.87	1.61	2.01	-	-	-	-	-	1.61	1.61
C214	2.11	1.98	2.11	1.98	-	-	-	-	1.84	1.58	-	1.84
C215	2.44	2.61	2.44	2.28	2.44	-	-	1.95	2.28	-	1.95	1.95
C216	2.28	2.61	2.61	2.28	2.61	1.95	-	-	2.28	-	1.95	1.95
C217	2.31	2.64	2.80	2.48	2.64	1.98	-	-	2.31	2.31	2.31	2.31
C301	1.93	2.22	1.93	2.49	-	-	-	-	1.66	-	-	1.66
C302	2.20	2.07	2.07	1.81	-	1.81	-	2.07	1.81	2.07	-	1.81
C303	1.93	2.08	2.08	2.08	2.22	-	-	-	-	-	1.93	-
C304	1.53	1.53	1.75	1.64	1.75	1.31	-	-	1.31	1.31	1.31	1.53
C305	1.84	1.84	1.84	1.98	1.84	-	-	-	1.58	1.98	-	1.84
C306	2.28	2.44	2.93	2.28	2.28	-	-	2.28	1.95	-	-	1.95
C307	2.31	2.48	2.80	2.31	2.48	1.98	-	2.31	1.98	1.98	-	2.31
C308	2.28	2.44	2.93	2.61	2.61	1.95	-	2.28	1.95	1.63	1.95	2.28
C309	2.66	2.66	2.66	2.22	2.66	2.22	1.77	2.37	2.66	1.77	2.37	2.22

C310	1.75	1.64	1.53	1.53	1.64	1.31	-	1.53	1.75	1.31	1.64	1.53
C311	2.41	2.14	1.87	2.01	2.14	-	-	-	1.61	-	-	1.87
C312	2.18	2.46	2.03	2.32	2.03	-	1.74	-	2.18	1.74	-	-
C313	2.38	2.54	2.69	2.85	2.21	1.90	-	2.21	1.90	2.21	1.90	2.21
C314	1.71	1.82	1.82	2.05	2.05	1.37	-	-	2.05	1.14	-	1.71
C315	-	-	-	-	-	2.74	2.13	2.13	2.13	1.83	1.83	1.83
C316	2.28	2.93	2.61	2.28	2.28	1.95	-	1.95	2.28	1.95	-	1.95
C317	2.28	2.61	2.61	2.44	2.44	1.95	-	2.28	2.28	1.95	1.95	1.95
C318	2.28	2.93	2.93	2.93	2.76	1.95	1.95	-	2.28	1.63	-	1.95
C401	2.01	2.01	1.87	2.14	-	1.87	-	1.61	-	-	1.61	1.61
C402	1.90	2.31	2.18	2.04	2.04	1.63	1.63	1.63	1.90	1.90	2.04	1.90
C403	2.03	2.18	2.03	2.03	-	1.74	1.45	1.74	-	-	-	1.74
C404	1.84	1.98	1.98	1.84	1.58	1.84	1.84	1.58	1.84	1.58	1.84	1.84
C405	1.96	2.25	2.11	2.11	1.96	1.69	1.69	-	1.69	-	1.96	1.96
C406	2.28	2.61	2.61	2.28	2.61	1.95	1.63	1.95	2.28	1.95	1.95	1.95
C407	2.28	2.61	2.28	2.44	2.76	-	-	1.95	-	-	-	-
C408	2.28	2.61	2.44	2.28	2.44	1.95	1.63	2.61	2.44	2.28	2.44	2.28
C409	2.28	2.61	2.61	2.93	2.61	-	1.95	2.28	2.44	-	2.28	1.95
C410	1.78	1.78	1.78	1.53	1.78	1.53	1.27	-	1.78	1.27	1.53	1.91
C411	1.78	1.78	1.78	1.78	1.53	1.78	-	-	1.53	-	1.53	1.53
C412	-	-	-	-	-	2.33	2.33	1.94	1.94	1.55	1.55	1.55
C413	1.75	1.75	1.75	1.75	1.50	-	-	-	-	-	-	-
C414	2.97	2.97	2.97	2.97	2.97	2.97	1.98	2.64	2.97	1.98	2.97	2.97
Direct Attainment (100%)	2.25	2.22	2.17	2.09	2.16	1.91	1.83	2.01	2.00	1.91	1.91	2.03

Direct Attainment (80%)	1.8	1.77	1.74	1.67	1.731	1.53	1.464	1.61	1.60	1.53	1.53	1.62
Indirect Attainment (100%)	2.67	2.67	2.83	2.5	2.83	2.83	2.17	2.50	2.5	2.67	2.83	2.5
Indirect Attainment (20%)	0.53	0.53	0.57	0.50	0.57	0.57	0.43	0.50	0.50	0.53	0.57	0.50
PO Attainment	2.34	2.31	2.30	2.17	2.30	2.10	1.90	2.11	2.10	2.07	2.10	2.12

Table B 3.3.2.b: PO-Course Attainment for 2014 Admitted Batch

PO - Course Attainment 2015

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	-	-	-	-	-	1.63	1.63	1.63	1.63	2.45	1.63	2.45
C102	2.73	2.12	1.82	1.82	-	1.82	1.82	1.82	-	-	1.82	2.73
C103	2.69	1.94	1.79	1.79	1.79	1.79	1.79	1.79	-	-	-	1.79
C104	2.54	1.79	2.09	1.79	2.69	-	-	-	1.79	-	-	1.35
C105	-	-	1.69	-	1.69	1.97	2.53	1.90	1.69	-	1.69	2.53
C106	2.62	2.31	1.85	1.85	2.08	-	-	-	-	-	-	-
C107	-	-	-	-	-	1.95	1.95	1.95	2.93	2.93	1.95	2.93
C108	2.64	1.98	-	1.98	1.98	-	1.98	-	1.98	-	-	1.98
C109	2.97	2.31	2.97	2.31	2.97	-	-	0.99	1.98	-	-	1.49
C110	-	-	-	-	-	1.98	1.98	1.98	1.98	2.97	1.98	2.97

C111	2.81	2.19	1.87	1.87	-	1.87	1.87	1.87	-	-	1.87	2.81
C112	2.89	1.93	2.25	1.93	1.93	1.93	1.93	-	-	-	1.93	2.89
C113	2.81	1.87	2.19	1.87	1.87	1.87	1.87	-	-	-	1.87	2.81
C114	-	-	-	-	-	1.89	1.66	2.84	0.95	0.95	1.89	2.37
C115	2.55	1.95	1.80	1.80	-	1.80	1.80	1.80	1.80	-	1.80	2.70
C116	-	-	-	-	-	1.93	1.93	1.93	2.89	2.89	1.93	2.89
C117	2.89	1.93	1.93	1.93	1.93	1.93	1.93	1.93	2.89	2.89	-	1.93
C119	2.41	2.24	0.96	-	2.25	-	-	-	0.96	-	-	-
C201	-	-	-	-	-	2.17	1.45	2.17	1.69	1.45	1.81	1.45
C202	2.32	2.32	2.47	2.47	1.85	2.16	-	-	2.16	-	1.85	2.16
C203	2.31	2.31	2.31	2.15	1.85	2.15	-	-	-	1.85	-	2.31
C204	2.26	2.01	-	-	1.51	-	-	-	-	-	2.26	1.51
C205	2.22	2.22	2.22	-	-	2.22	-	-	1.94	2.08	2.22	2.22
C206	2.44	2.44	2.76	2.28	2.93	-	-	2.44	1.95	-	-	1.95
C207	2.44	2.44	2.61	-	2.93	2.44	-	-	-	-	2.28	1.95
C208	2.44	2.93	2.61	2.61	-	2.61	-	-	2.61	2.61	2.61	2.61
C209	2.93	2.93	2.93	2.44	2.44	2.76	-	2.76	2.93	2.28	2.61	2.44
C210	2.10	2.70	-	2.55	-	-	-	-	-	-	-	1.80
C211	2.06	2.21	2.21	1.77	2.06	1.77	-	1.77	1.77	-	1.77	1.77
C212	2.14	2.14	2.29	2.14	1.71	-	-	-	1.71	-	1.71	1.71
C213	2.11	2.11	2.25	1.69	2.11	-	-	-	-	-	1.69	1.69
C214	2.50	2.34	2.50	2.81	-	-	-	-	2.18	-	-	2.18
C215	2.61	2.61	2.76	2.76	2.93	-	-	-	2.28	-	1.95	1.95
C216	2.44	2.61	2.76	2.61	2.93	2.44	-	-	2.28	-	1.95	1.95
C217	2.48	2.64	2.80	2.48	2.97	2.48	-	-	2.31	2.31	2.31	2.31
C301	2.15	2.47	2.15	2.77	-	-	-	-	1.85	-	-	1.85
C302	2.31	2.47	2.47	2.15	-	2.15	-	2.61	2.15	2.47	-	2.15

C303	2.12	2.28	2.28	2.28	2.43	-	-	-	-	-	-	-
C304	2.24	2.24	2.57	2.89	2.57	2.41	-	-	1.93	1.93	1.93	2.24
C305	1.59	1.59	1.71	1.82	1.59	-	-	1.37	1.37	-	-	1.59
C306	2.61	2.44	2.93	2.93	2.93	-	-	-	2.28	-	-	1.95
C307	2.64	2.48	2.80	2.80	2.97	2.31	-	-	2.31	1.98	-	2.31
C308	2.61	2.44	2.93	2.93	2.93	2.28	-	-	2.44	1.95	2.61	2.28
C309	2.90	2.90	2.90	2.90	2.42	2.58	1.93	2.74	2.90	2.25	2.74	2.42
C310	2.36	2.21	2.21	2.36	1.77	2.21	-	2.50	2.36	1.77	2.50	2.06
C311	2.49	2.22	2.08	2.49	2.22	-	-	-	1.66	-	-	1.93
C312	2.21	2.50	2.21	2.50	2.06	-	1.77	-	2.21	1.77	-	-
C313	2.38	2.54	2.85	2.85	1.90	2.21	-	2.69	1.90	2.21	1.90	2.21
C314	2.41	2.57	2.57	2.89	2.73	2.57	-	-	2.89	1.93	-	2.41
C315	-	-	-	-	-	2.35	1.83	2.22	1.83	1.57	1.96	1.57
C316	2.34	2.81	2.65	2.65	2.65	2.18	-	2.65	2.34	1.87	-	1.87
C317	2.28	2.61	2.76	2.61	2.93	2.28	-	2.76	2.44	1.95	1.95	1.95
C318	2.28	2.93	2.93	2.93	2.93	2.28	1.95	-	2.61	1.95	-	1.95
C401	2.00	2.14	2.00	2.42	-	2.00	-	2.57	-	-	1.71	1.71
C402	1.87	2.27	2.14	2.01	1.61	-	1.61	2.27	2.01	1.87	2.01	1.87
C403	1.93	2.08	1.93	2.22	-	1.66	1.66	2.35	-	-	-	1.66
C404	1.96	2.11	2.11	2.25	1.69	1.96	-	2.53	1.96	1.96	2.25	1.96
C405	1.96	2.25	2.11	2.53	1.96	1.69	1.69	-	2.11	-	1.96	1.96
C406	2.61	2.61	2.93	2.61	2.93	-	2.28	2.76	2.28	1.95	2.28	1.95
C407	2.44	2.61	2.44	2.76	2.93	-	-	2.76	2.28	-	-	-
C408	2.44	2.61	2.44	2.61	2.93	1.95	1.95	2.76	2.44	2.28	2.76	2.28
C409	2.44	2.61	2.61	2.93	2.93	-	1.95	2.76	2.44	-	2.28	1.95
C410	1.90	1.90	1.90	1.63	1.63	1.63	1.90	-	1.90	1.63	1.63	2.04
C411	1.84	1.84	1.84	2.24	1.58	1.84	-	-	1.58	-	1.58	1.58

C412	-	-	-	-	-	2.46	2.46	2.05	2.05	1.91	1.64	1.64
C413	1.91	1.91	1.91	1.91	1.64	-	-	-	-	-	-	-
C414	2.97	2.97	2.97	2.97	2.31	2.97	2.31	2.97	2.97	2.31	2.97	2.97
Direct Attainment (100%)	2.39	2.33	2.34	2.36	2.30	2.13	1.91	2.26	2.13	2.10	2.05	2.11
Direct Attainment (80%)	1.91	1.86	1.87	1.89	1.84	1.70	1.53	1.81	1.70	1.68	1.64	1.69
Indirect Attainment (100%)	2.67	2.83	2.67	2.67	2.83	2.83	2.67	2.00	2.50	2.67	2.83	2.67
Indirect Attainment (20%)	0.53	0.57	0.53	0.53	0.57	0.57	0.53	0.40	0.50	0.53	0.57	0.53
PO Attainment	2.45	2.43	2.41	2.42	2.41	2.27	2.06	2.21	2.20	2.21	2.20	2.22

Table B 3.3.2.c: PO-Course Attainment for 2015 Admitted Batch

Admitted Batch	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
2013-17	2.25	2.21	2.20	1.99	2.02	2.02	1.85	1.99	2.02	2.04	2.01	2.02
2014-18	2.34	2.31	2.30	2.17	2.30	2.10	1.90	2.11	2.10	2.07	2.10	2.12
2015-19	2.45	2.43	2.41	2.42	2.41	2.27	2.06	2.21	2.20	2.21	2.20	2.22

Table B.3.3.2d: CO-PO Analysis for three consecutive batches

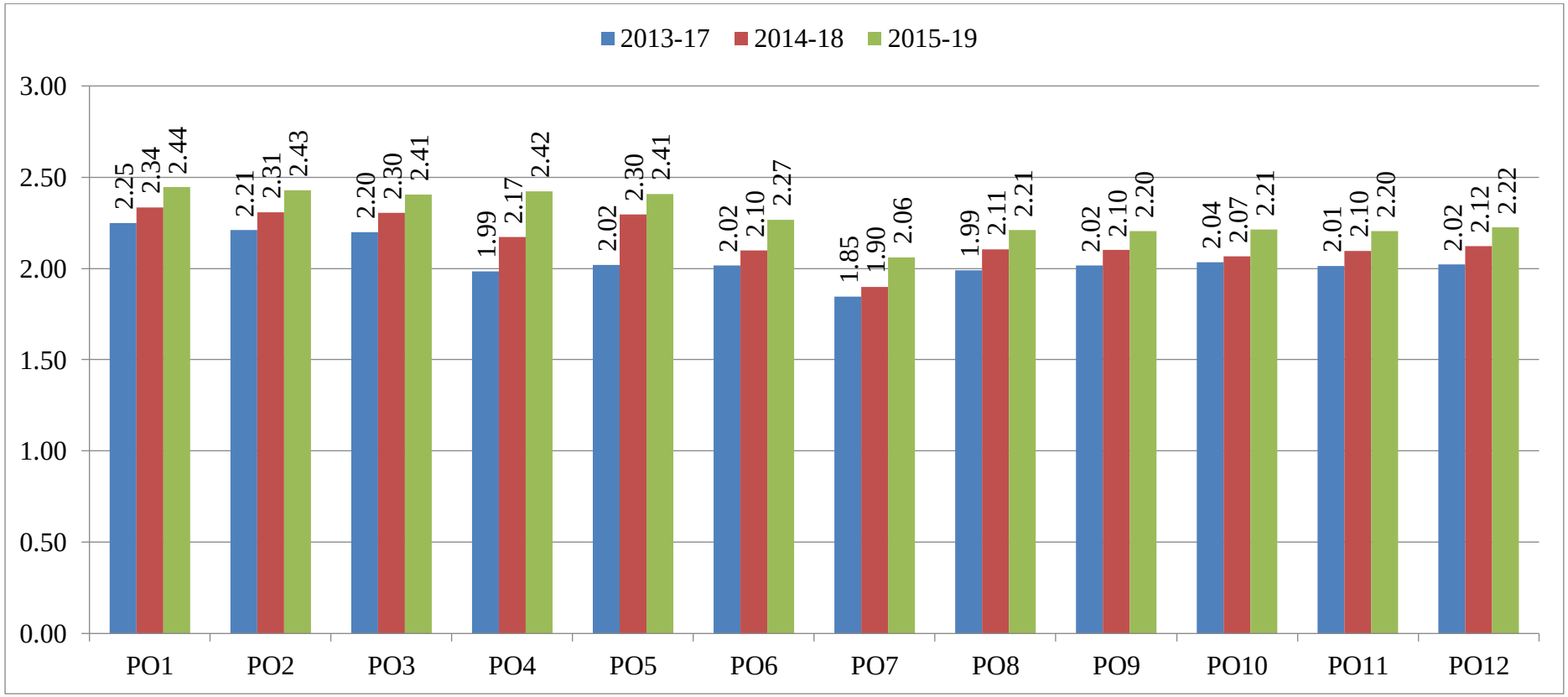


Figure B 3.2.2.a: PO Analysis for three consecutive batches

PO Attainment Analysis

Program Outcome attainments for the three consecutive batches 2013-17, 2014-18 and 2015-19 are shown in Table 3.2.2d below

- A target of attaining 80% of the values to POs, PO1 to PO5 which are high related to engineering core courses and moderately related to non-engineering courses
- A target of 70% for the remaining POs PO6 to PO12 which are moderately related to engineering core courses and non-engineering courses.

For the admitted batch 2013-17, the target is 2.2 out of 3 for engineering courses and 2 out of 3 for non- engineering courses, eight Program OutcomesPO1, PO2, PO3, PO6, PO9, PO10, PO11 and PO12 reached the target.

For the admitted batch 2014-18, the target is 2.3 out of 3 for engineering courses and 2.1 out of 3 for non- engineering courses, nine Program Outcomes PO1, PO2, PO3, PO6, PO8, PO9, PO10, PO11 and PO12 reached the target.

For the admitted batch 2015-19, the target is 2.4 out of 3 for engineering courses and 2.2 out of 3 for non- engineering courses ten Program Outcomes PO1, PO2, PO3, PO4, PO6, PO7, PO9, PO10, PO11 and PO12 reached the target.

The performance of the students of all the three batches is progressively increased in extracting the Engineering Knowledge, analyzing the problem and providing optimal design solutions which is clearly representing by the values of PO1, PO2 and PO3. The values of PO4 and PO5 show the improvement of Modern tool usage and solving complex problems is gradually increased.

From the analysis, by attaining the target of PO9, PO10, PO11 and PO12 of all the batches shows that our Teaching-Learning process is in the direction of preparing the students inline with our Mission by inculcating team work, communication, management and lifelong learning. We are keen in organizing several events and motivating students to aware and practice the needs of professional engineering in the society and Ethical values.

For the subsequent batches, by filing the curriculum gaps we are in the direction to improve and attain the target levels. The progressive growth in total number of placements and the placed students is a visualized proof that our CSE students attained the target of Program Outcomes which builds the confidence and strength for the upcoming batches.

Summary:

For the academic years 2018-19, 2017-18 & 2016-17, the target value is set to 2.4, 2.3, 2.2 respectively for PO1 to PO5 and 2.2, 2.1, 2.0 respectively for PO6 to PO12. It was observed that out of 12 POs, few POs were not attained in each year. Program Assessment Committee (PAC) has taken certain actions to improve the PO attainment for the next coming batches.

- For 2016-17, PO4, PO5, PO7 & PO8 were not attained.
  - For PO4, subjects that deal with complex problems, data collection and synthesis were identified. GATE questions were practiced in tutorial classes. Faculty members were advised to go with some simple and relevant journal papers in class room to improve research-based knowledge.
  - For PO5, additional lab experiments were included for lab associated courses. Faculties were advised to use different tools and giving more examples to demonstrate the theoretical concepts.
  - For PO7, identified more courses on environmental sustainability. Seminars and guest lecturers were arranged on environmental sustainability in engineering and education.
  - For PO8, identified more courses on ethics and social values. Special lectures were arranged on professional ethics in engineering and value education.
  - Design workshops were arranged for the improvement of practical applications. PSA proposed to organize workshops on different programming tools and advanced courses for the upgrading of skills. Projects were inclined towards the expansion of tools. Motivational lectures were arranged by eminent people to develop self-consciousness on ethics and human values also identified more courses on ethics and social values. Students were encouraged to organize department associations.
- For 2017-18, PO4, PO7 & PO10 were not attained.
  - For PO4, PSA proposed to discuss about solving the complex problems, each individual course. Projects should be inclined towards working on large and complex systems.
  - For PO7, seminars and lectures were arranged by eminent people to develop self-consciousness on environment.
  - For PO10, special classes were organized to improve the communication skills to perform well in activates and presenting the new things to group of people. The importance of communicating with people was discussed during the project work.
- For 2018-19, PO17 was not attained.

- For PO7, Student clubs were engaged in organizing department level activities independently. Activities were planned with eminent people to improve knowledge on environment and sustainability.

PSO attainment

In the similar way, we have calculated PSO attainment for each course and obtained values are shown below

Admitted Batch 2013

Course code	PSO 1	PSO 2
C101	1.95	-
C102	1.82	-
C103	1.77	-
C104	1.82	2.31
C105	-	-
C106	0.67	-
C107	1.95	-
C108	1.98	-
C109	2.31	2.31
C110	1.98	-
C111	1.74	-
C112	1.90	-
C113	1.66	-
C114	1.58	-
C115	1.93	-
C116	1.95	-
C117	1.95	-
C119	2.28	1.80
C201	0.93	-
C202	-	-
C203	2.24	1.84
C204	1.11	0.00
C205	1.36	-
C206	2.76	2.76
C207	2.76	2.76
C208	2.76	-
C209	2.28	2.28
C210	1.69	0.00
C211	2.35	1.93
C212	2.54	2.54

C213	1.75	1.75
C214	1.41	1.41
C215	2.76	1.95
C216	2.76	2.28
C217	2.80	2.31
C301	1.61	1.61
C302	1.50	-
C303	1.85	2.15
C304	1.86	1.86
C305	2.12	2.12
C306	2.76	2.76
C307	2.80	2.80
C308	2.76	2.28
C309	2.04	2.04
C310	2.39	2.39
C311	2.20	1.81
C312	2.11	1.84
C313	2.18	2.31
C314	2.25	2.39
C315	1.21	-
C316	2.76	2.28
C317	2.76	1.95
C318	2.76	2.76
C401	2.08	2.08
C402	2.12	1.25
C403	2.25	1.69
C404	2.14	2.27
C405	2.31	2.31
C406	2.61	2.76
C407	-	2.76
C408	2.76	2.76
C409	2.76	2.76
C410	2.20	2.20
C411	2.35	1.93
C412	1.29	-
C413	2.04	1.53
C414	2.64	2.64
Direct Attainment (100%)	2.11	2.10
Direct Attainment	1.69	1.68

(80%)		
Indirect Attainment (100%)	2.67	2.67
Indirect Attainment (20%)	0.53	0.53
PSO Attainment	2.22	2.21

Table B.3.3.2. e: PSO-Course Attainment for 2013 Admitted Batch

Admitted Batch 2014

Course code	PSO 1	PSO 2
C101	1.93	-
C102	1.71	-
C103	1.71	-
C104	2.00	2.00
C105	1.66	-
C106	1.77	-
C107	1.95	-
C108	1.98	-
C109	2.31	2.31
C110	1.85	-
C111	1.82	-
C112	1.87	-
C113	1.63	-
C114	1.54	-
C115	1.87	-
C116	1.95	-
C117	1.95	-
C119	2.44	1.80
C201	1.61	-
C202	2.06	1.94
C203	2.08	1.97
C204	2.15	-
C205	1.55	-
C206	2.76	2.76
C207	2.76	2.76
C208	2.27	-
C209	2.44	2.28
C210	2.00	-

C211	2.24	2.11
C212	2.20	2.20
C213	2.27	2.27
C214	1.84	1.98
C215	2.76	2.61
C216	2.76	2.61
C217	2.80	2.64
C301	2.22	2.22
C302	2.07	-
C303	2.22	1.93
C304	1.86	1.86
C305	2.24	2.24
C306	2.76	2.76
C307	2.80	2.80
C308	2.76	2.61
C309	2.37	2.07
C310	1.86	1.86
C311	2.27	2.14
C312	2.32	2.32
C313	2.54	2.69
C314	1.82	1.93
C315	-	-
C316	2.76	2.28
C317	2.76	2.61
C318	2.76	2.76
C401	2.27	2.27
C402	2.31	1.90
C403	2.32	2.32
C404	2.11	2.24
C405	2.39	2.39
C406	2.61	2.76
C407	-	2.76
C408	2.76	2.61
C409	2.76	2.28
C410	2.16	1.78
C411	2.16	1.53
C412	-	-
C413	2.00	1.50
C414	2.80	1.98
Direct Attainment (100%)	2.21	2.26

Direct Attainment (80%)	1.77	1.81
Indirect Attainment (100%)	2.67	2.67
Indirect Attainment (20%)	0.53	0.53
PSO Attainment	2.30	2.35

Table B.3.3.2.f: PSO-Course Attainment for 2014 Admitted Batch

Admitted Batch 2015

Course code	PSO 1	PSO 2
C101	1.63	-
C102	1.82	-
C103	1.79	-
C104	2.09	2.09
C105	1.69	-
C106	1.85	-
C107	1.95	-
C108	1.98	-
C109	2.31	2.31
C110	1.98	-
C111	1.87	-
C112	1.93	-
C113	1.87	-
C114	1.58	-
C115	1.80	-
C116	1.93	-
C117	1.93	-
C119	2.41	1.77
C201	1.45	-
C202	2.62	2.47
C203	2.61	2.47
C204	2.01	-
C205	2.08	-
C206	2.76	2.76
C207	2.76	2.76
C208	2.76	-

C209	2.93	2.61
C210	1.80	2.25
C211	2.50	2.36
C212	2.42	2.42
C213	2.39	2.39
C214	2.34	2.34
C215	2.76	2.61
C216	2.76	2.61
C217	2.80	2.64
C301	2.47	2.47
C302	2.47	-
C303	2.43	2.12
C304	2.73	2.73
C305	1.93	1.93
C306	2.76	2.76
C307	2.80	2.80
C308	2.76	2.61
C309	2.90	2.58
C310	2.50	2.50
C311	2.35	2.22
C312	2.36	2.36
C313	2.54	2.69
C314	2.57	2.73
C315	1.57	-
C316	2.65	2.28
C317	2.76	2.61
C318	2.76	2.76
C401	2.42	2.42
C402	2.27	1.87
C403	2.49	2.22
C404	2.53	2.39
C405	2.53	2.39
C406	2.93	2.76
C407	-	2.76
C408	2.76	2.61
C409	2.93	2.28
C410	2.31	1.90
C411	2.24	1.58
C412	1.64	-
C413	2.19	1.64
C414	2.97	2.97
Direct	2.34	2.42

Attainment (100%)		
Direct Attainment (80%)	1.87	1.94
Indirect Attainment (100%)	2.67	2.33
Indirect Attainment (20%)	0.53	0.47
PSO Attainment	2.40	2.40

Table B.3.3.2g: PSO-Course Attainment for 2015 Admitted Batch

The consolidated table of PSO attainments is given below

Year	PSO1	PSO2
2013-17	2.22	2.21
2014-18	2.30	2.35
2015-19	2.40	2.40

Table B.3.3.2.h: PSO-Course Attainment analysis for three consecutive batches

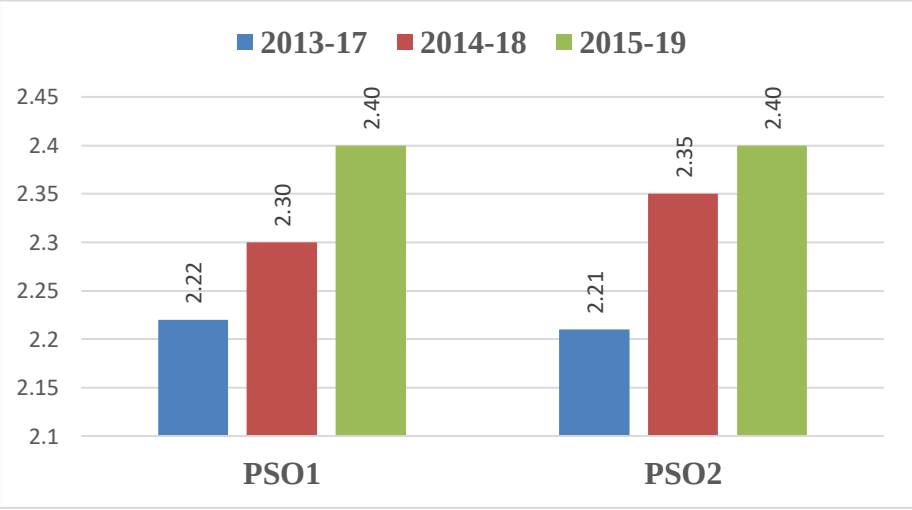


Figure B.3.3.2b: PSO-Program Attainment analysis for three consecutive batches

PSO -Program Attainment Analyisis:

Program Specific Outcome Attainment for the three consecutive batches 2013-17, 2014-18 and 2015-19 are shown below in Table B.3.3.2h and in Figure B3.3.2b. For the students of the program B.Tech Computer Science and Engineering, we set

- A target of attaining 80% of the values to PSO1 which is high related to Engineering core courses and moderately related to non-engineering courses
- A target of 80% for the remaining PO2 which is high related to engineering core courses and low related to non-engineering courses.

For PSO-Program Attainment for the three consecutive batches 2013-17, 2014-18 and 2015-19, target is 2.20, 2.30, and 2.40 respectively. PSO1 and PSO2 reached the target. A continuous improvement is observed for the three batches in PSO attainment which is achieved by preparing our students towards the needs of IT industry, various industry, organizing and motivating students to participate in all kinds of technical events to and emphasize of latest technologies, by encouraging towards research and higher studies etc.

CRITERION 4	Students Performance	150

4.1	Enrolment Ratio	20M
4.2	Success Rate in the stipulated period of the program	40M
4.3	Academic Performance in Third Year	15M
4.4	Academic Performance in Second Year	15M
4.5	Placement, Higher Studies and Entrepreneurship	40M
4.6	Professional Activities	20M

CRITERION 4	Students Performance	150

4. STUDENTS' PERFORMANCE (150)

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY 2019-2020	CAYm1 2018-2019	CAYm2 2017-2018
Sanctioned intake of the program (N)	193	180	180
Total number of students admitted in first year *minus* number of students migrated to other programs/institutions plus no. of students migrated to this program (*N*1)	187	171	177
Number of students admitted in 2nd year in the same batch via lateral entry (*N*2)	Nil	18	21
Separate division students, if applicable(*N3*)	Nil	Nil	Nil
Total number of students admitted in the Program (*N*1 + *N*2 + N3)	187	189	198

Table B.4a: Total number of admitted students

CAY – Current Academic Year
CAYm1- Current Academic Year minus1= Current Assessment Year
CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1
LYG – Last Year Graduate minus 1
LYGm1 – Last Year Graduate minus 1
LYGm2 – Last Year Graduate minus 2

Year of entry	Total No of Students Admitted in the Program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/year of study. (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY (2019-20)	187				
CAYm1 (2018-19)	189	141			
CAYm2 (2017-18)	198	110	100		
CAYm3 (2016-17)	193	111	111	109	
CAYm4 (LYG) (2015-16)	186	124	125	120	111
CAYm5 (LYGm1) (2014-15)	179	110	104	95	87
CAYm6 (LYGm2) (2013-14)	156	83	99	94	89

Table B.4b: Number of students who have successfully graduated without backlogs

Year of entry	Total No. of Students Admitted in the Program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study [Total of with Backlog + without Backlog]			
		I Year	II Year	III Year	IV Year
CAY (2019-20)	187				
CAYm1 (2018-19)	189	171			
CAYm2 (2017-18)	198	174	192		
CAYm3 (2016-17)	193	175	187	187	
CAYm4 (LYG) (2015-16)	186	173	184	183	171
CAYm5 (LYGm1) (2014-15)	179	163	174	170	151
CAYm6 (LYGm2) (2013-14)	156	132	155	155	142

Table B.4c: No. of students who have successfully graduated in stipulated period of study

4.1. Enrolment Ratio (20)

Enrolment Ratio=N1/N

Item *(Students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year)*	***Marks***
>=90% students enrolled	*20*
>=80% students enrolled	*18*
>=70% students enrolled	*16*
>=60% students enrolled	*14*
>=50% students enrolled	*12*
Otherwise	*0*

Sl. No	Academic year	N (From Table B.4a)	N1 (From Table B.4a)	Enrollment Ratio [(N1/N) *100]
1.	2019-20	193	187	96.89
2.	2018-19	180	171	95.00
3.	2017-18	180	177	98.33
			Average Enrollment Ratio	**96.74**
			Marks	**20**

Table B.4.1a: Enrolment Ratio

4.2. Success Rate in the stipulated period of the program (40)

4.2.1. Success rate without backlogs in any semester/year of study (25)

SI= (Number of students who have graduated from the program without backlog)/ (Number of Students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI =Mean of Success Index (SI) for past three batches

Success rate without backlogs in any year of study = 25 × Average SI

Item	Latest Year of Graduate, LYG (2015-16)	Latest Year of Graduate minus1 LYGm1 (2014-15)	Latest Year of Graduate minus2 LYGm2 (2013-14)
Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	186	179	156
Number of students who have graduated without backlogs in the stipulated period	112	88	92
Success Index (SI= Y/X)	0.60	0.49	0.59
Average SI = (SI 1+SI 2+ SI 3)/3	**0.56**		
Success rate without backlogs in any year of study= 25 × 0.56**= 14**			

Table B.4.2.1: Success rate without backlogs in any semester/year of study

4.2.2. Success rate with backlog in stipulated period of study (15)

SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches

Success rate = 15 ×Average SI

Item	Latest Year of Graduate, LYG (2015-16)	Latest Year of Graduate minus1 LYGm1 (2014-15)	Latest Year of Graduate minus2 LYGm2 (2013-14)
Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	186	179	156
Number of students who have graduated without backlogs in the stipulated period	171	151	142
Success Index (SI= Y/X)	0.92	0.84	0.91
Average (SI = (SI 1+SI 2+ SI 3)/3	**0.89**		
Success rate with backlog in stipulated period of study= 15 ×0.89 = **13.35**			

Table B.4.2.2: Success rate with backlog in stipulated period of study

4.3. Academic Performance in Third Year (15)

*Academic Performance =1.5 * Average API (Academic Performance Index)*

***API** = ((Mean of 3rdYear Grade Point Average of all successful Students on a 10 point scale) or(Mean of the percentage of marks of all successful students in Third Year/10)) x (number of successful students/ number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the final year.

Academic Performance	CAYm1 2018-19	CAYm2 2017-18	CAYm3 2016-17
Mean of CGPA or mean percentage of all successful students(X)	7.64	7.26	6.89
Total number of successful students(Y)	187	183	170
Total number of students appeared in the examination(Z)	187	184	174
API = X * (Y/Z)	7.64	7.22	6.73
Average API = [(AP1 + AP2 + AP3)/3]	**7.20**		
Academic Performance in Third Year = 1.5* 7.20= **10.80**			

Table B.4.3: Academic Performance in Third Year

4.4. Academic Performance in Second Year (15)

*Academic Performance Level =1.5 * Average API (Academic Performance Index)*

API= *((Mean of 2nd Year Grade Point Average of all successful Students on a 10-point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) X (number of successful students /number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1 2018-19	CAYm2 2017-18	CAYm3 2016-17
Mean of CGPA or mean percentage of all successful students(X)	6.72	7.06	7.28
Total number of successful students(Y)	192	187	184
Total number of students appeared in the examination(Z)	195	189	184
API = X * (Y/Z)	6.62	6.99	7.28
Average API = [(AP1 + AP2 + AP3)/3]	**6.96**		
Academic Performance in Second Year=1.5*6.96= **10.44**			

Table B.4.4: Academic Performance in Second Year

4.5. Placement, Higher Studies and Entrepreneurship (40)

Assessment Points=*40 × average placement*

Item	CAYm1 2018-19	CAYm2 2017-18	CAYm3 2016-17
Total No of Final Year Students(N)	183	170	155
No of students placed in the companies or government sector(X)	165	142	131
No of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	2	6	8
No of students turned entrepreneur in engineering /technology (Z)	1	0	1
X + Y + Z =	168	148	140
Placement Index = [(X+Y+Z)/N] :	0.92	0.87	0.90
Average Placement= [(P1 + P2 + P3)/3]	**0.90**		
Assessment Points=40 ×0.90= **35.87**			

Table B.4.5: Placement, Higher Studies and Entrepreneurship

4.5a. Provide the placement data in the below mentioned format with the name of the program and the assessment year:

The placement data portrays the quality of the placements in our institute that are provided by the highly rated MNCs like Amazon, Microsoft, Juspay, Accenture, MAQ software. Two students are excelled by securing a job as System developer in Amazon w ith package of 18LPA. Another two students excelled in Microsoft with a package of 9.8 LPA and one more student rocked in Juspay with 12 LPA.

Placement data of Computer Science and Engineering, 2018-19				
Sl. No	**Name of the student placed**	**Enrollment No.**	**Name of the Employer**	**Appointment letter Reference No. with date**
1.	K MADHAVI	15NM1A0559	AMAZON	VIEW/TP/20190107
2.	R V S R N VAISHNAVI	15NM1A0593	TEK SYSTEMS	VIEW/TP/20190321
3.	A PRAVALLIKA	15NM1A0506	SYNTEL	VIEW/TP/20190398
4.	ANUSHA K	15NM1A0507	SYNTEL	VIEW/TP/20190399
5.	A S SIRISHA	15NM1A0508	SYNTEL	VIEW/TP/20190400
6.	B MOUNIKA	15NM1A0513	SYNTEL	VIEW/TP/20190401
7.	K S LAKSHMI	15NM1A0542	SYNTEL	VIEW/TP/20190402
8.	K MADHUMITHA	15NM1A0546	SYNTEL	VIEW/TP/20190403
9.	K SUSHMITHA	15NM1A0556	SYNTEL	VIEW/TP/20190404
10.	M NEELIMA	15NM1A0570	SYNTEL	VIEW/TP/20190405
11.	N SRAVYA	15NM1A0573	SYNTEL	VIEW/TP/20190406
12.	N M SOWJANYA	15NM1A0574	SYNTEL	VIEW/TP/20190407
13.	P PRATHYUSHA	15NM1A0584	SYNTEL	VIEW/TP/20190408
14.	S KAVYA	15NM1A0599	SYNTEL	VIEW/TP/20190409
15.	T SAI RENUKA	15NM1A05B2	SYNTEL	VIEW/TP/20190410
16.	V SUMA	15NM1A05B9	SYNTEL	VIEW/TP/20190411
17.	G H ANASARI	15NM1A05D4	SYNTEL	VIEW/TP/20190412
18.	V PRIYANKA	15NM1A05C0	TCS CODE VITA	TCSI/DT/20184349423/HYD
19.	S BHAGYASRI	15NM1A05G8	CAPGEMINI	HR/CAMPUS/LO201941858
20.	K KIRANMAI	15NM1A0554	CAPGEMINI	HR/CAMPUS/LO201941868
21.	A KRISHNA VENI	16NM5A0501	CAPGEMINI	HR/CAMPUS/LO201941875
22.	B PADMAVATHI	15NM1A0515	CAPGEMINI	HR/CAMPUS/LO201941876
23.	G L LAVANYA	15NM1A0537	CAPGEMINI	HR/CAMPUS/LO201941886
24.	RUBY KUMARI	15NM1A0596	CAPGEMINI	HR/CAMPUS/LO201941887
25.	P SAI RAJEEVI	15NM1A0578	CAPGEMINI	HR/CAMPUS/LO201941901
26.	D SOWJANYA	15NM1A0520	IBM	VIEW/TP/20190106
27.	A DIVYA	15NM1A0503	INFOSYS	VIEW/TP/20190351
28.	K TEJA SREE	15NM1A0551	INFOSYS	VIEW/TP/20190352
29.	K G RATNAM	15NM1A05H6	K SOFTWARE SOL	VIEW/TP/20190415
30.	D LALITA	15NM1A05C5	TCS	TCSI/DT/20182473847/HYD
31.	P VYSALI	15NM1A05G3	TCS	TCSI/DT/20184294308/HYD

32.	M HARIKA	15NM1A0564	TCS	TCSI/DT/20184336784/HYD
33.	M NIKHILA	15NM1A0572	TCS	TCSI/DT/20184348454/HYD
34.	D HARSHITHA	15NM1A0521	TCS	TCSI/DT/20184414542/HYD
35.	G JAYAMADHURI	15NM1A0533	TCS	TCSI/DT/20184414625/HYD
36.	C G SOUJANYA	15NM1A0519	TCS	TCSI/DT/20184414742/HYD
37.	K SUPRIYA	15NM1A0562	TCS	TCSI/DT/20184440528/HYD
38.	K VASAVI	15NM1A0541	TCS	TCSI/DT/20184475958/HYD
39.	M K SWETHA	15NM1A0568	WIPRO	8038254
40.	G S VANDANA	15NM1A0530	WIPRO	8129318
41.	A M GAYATHRI	15NM1A0504	WIPRO	8220382
42.	K LALITHA	15NM1A0560	WIPRO	8243463
43.	U S PRAHARSHINI	15NM1A05H2	WIPRO	8245122
44.	L ANURADHA	15NM1A0563	WIPRO	8245124
45.	P NIHARIKA	15NM1A0592	WIPRO	8246416
46.	M PAVANI	15NM1A0569	WIPRO	8247190
47.	G S SARANYA	15NM1A0531	WIPRO	8263542
48.	A D MOUNIKA	15NM1A0502	WIPRO	8264803
49.	P HIMA SUSHMA	15NM1A0585	WIPRO	8266723
50.	P MANORANJANI	15NM1A0579	WIPRO	8267265
51.	P RAMYA	15NM1A0589	WIPRO	8273998
52.	M SRIVALLI	15NM1A05F0	WIPRO	8345612
53.	S VINEETHA	15NM1A05A9	WIPRO	8402015
54.	O N D MANISHA	15NM1A0577	WIPRO	8404154
55.	K CHARISHMA	15NM1A0550	WIPRO	8404587
56.	L DHANALAXMI	16NM5A0506	WIPRO	8413152
57.	T P NAGA MOUNIKA	15NM1A05B5	WIPRO	8421153
58.	POORNIMA NAG	15NM1A05G4	WIPRO	8426412
59.	N SOWMYALATHA	15NM1A0575	WIPRO	8456126
60.	P GEETHANJALI	15NM1A0583	WIPRO	8465062
61.	I BHARGAVI	15NM1A0538	WIPRO	8486668
62.	S SUREKHA	15NM1A05A5	COGNIZANT	VIEW/TP/20190347
63.	J SAI SIRISHA	15NM1A0539	QSPIDERS	VIEW/TP/20190296
64.	K PALLAVI	15NM1A0552	QSPIDERS	VIEW/TP/20190297
65.	K B PRAKASANI	15NM1A05D9	QSPIDERS	VIEW/TP/20190298
66.	LAKSHMI SOUJANYA	15NM1A05E5	QSPIDERS	VIEW/TP/20190299
67.	T ANUSHA	15NM1A05B3	REDCARPET	VIEW/TP/20190324
68.	N LALITHA NAGASAI	15NM1A0576	PATHFRONT	PFSDS/B001/236/22122018
69.	S GYANA PRIYA	15NM1A05A0	PATHFRONT	PFSDS/B001/238/22122018
70.	K SNEHA	15NM1A05E2	PATHFRONT	PFSDS/B001/241/22122018
71.	M RATNA SAHITHI	15NM1A05E7	PATHFRONT	PFSDS/B001/243/22122018
72.	P UMA PADMAJA	15NM1A05F9	PATHFRONT	PFSDS/B001/245/22122018
73.	P HARIKA	15NM1A05G2	PATHFRONT	PFSDS/B001/246/22122018
74.	SIRISHA DOLAI	15NM1A05G9	PATHFRONT	PFSDS/B001/247/22122018
75.	S SHUSHMA SREE	15NM1A05A6	PATHFRONT	PFSDS/B001/254/22122018
76.	B PAVANI	15NM1A0510	PATHFRONT	PFSDS/B001/256/22122018
77.	D S PRAGNA SREE	15NM1A0524	PATHFRONT	PFSDS/B001/257/22122018
78.	D SHARMILA	15NM1A0525	PATHFRONT	PFSDS/B001/258/22122018

79.	M KAVITHA	15NM1A0567	PATHFRONT	PFSDS/B001/259/22122018
80.	P SRI LAKSHMI KAVYA	15NM1A0586	PATHFRONT	PFSDS/B001/261/22122018
81.	V SRI KAVYA	15NM1A05B7	PATHFRONT	PFSDS/B001/265/22122018
82.	V SHARMILA	15NM1A05B8	PATHFRONT	PFSDS/B001/267/22122018
83.	ANUPRIYA ACHARYA	15NM1A05C2	PATHFRONT	PFSDS/B001/268/22122018
84.	P SREEJA	15NM1A0588	GLENWOOD SYS	VIEW/TP/20190343
85.	D KAMALESHWARI	15NM1A0522	MPHASIS	MPHTH2019-0797
86.	E YAMINI PRIYANKA	16NM5A0503	CONDUENT	VIEW/TP/20190349
87.	M NAVYA	15NM1A0565	IBeON INFOTECH	VIEW/TP/20190111
88.	P V S S KMAHIMA	15NM1A0591	IBeON INFOTECH	VIEW/TP/20190115
89.	D GEETHIKA	15NM1A05C8	IBeON INFOTECH	VIEW/TP/20190117
90.	E POONAM SANJU	15NM1A05D1	IBeON INFOTECH	VIEW/TP/20190118
91.	K VENKATA YAMINI	15NM1A05E3	IBeON INFOTECH	VIEW/TP/20190120
92.	P DEEKSHITA	15NM1A05F5	IBeON INFOTECH	VIEW/TP/20190121
93.	R A V S S SOWMYA	15NM1A05G6	IBeON INFOTECH	VIEW/TP/20190124
94.	S T NAGA VANDANA	15NM1A05G7	IBeON INFOTECH	VIEW/TP/20190125
95.	T SHARMILA	15NM1A05H1	IBeON INFOTECH	VIEW/TP/20190127
96.	D MOUNIKA	15NM1A0523	IBeON INFOTECH	VIEW/TP/20190461
97.	G RAMYA	15NM1A0529	IBeON INFOTECH	VIEW/TP/20190462
98.	G KALYANI	15NM1A0532	IBeON INFOTECH	VIEW/TP/20190463
99.	K SRIHITHA	15NM1A0549	IBeON INFOTECH	VIEW/TP/20190464
100.	M KUSUMA	15NM1A0571	IBeON INFOTECH	VIEW/TP/20190465
101.	P ASHALATHA	15NM1A0582	IBeON INFOTECH	VIEW/TP/20190466
102.	P JUSHITHA	15NM1A0587	IBeON INFOTECH	VIEW/TP/20190467
103.	S N S T MAHALAKSHMI	15NM1A05A4	IBeON INFOTECH	VIEW/TP/20190468
104.	D K L SAI SHIVANI	15NM1A05C6	IBeON INFOTECH	VIEW/TP/20190469
105.	G GOWTHAMI	15NM1A05D5	IBeON INFOTECH	VIEW/TP/20190470
106.	K GNANAMAI	15NM1A05E0	IBeON INFOTECH	VIEW/TP/20190471
107.	L DIVYASRI	15NM1A05E6	IBeON INFOTECH	VIEW/TP/20190472
108.	N V ARUNA RAMYA	15NM1A05F3	IBeON INFOTECH	VIEW/TP/20190473
109.	KUSUMA PRIYA K	15NM1A05E4	IT SEZ	VIEW/TP/20190322
110.	A MOUNIKA	15NM1A0501	THINKSYNQ	VIEW/TP/20190154
111.	A JAVERIA	15NM1A0505	THINKSYNQ	VIEW/TP/20190155
112.	A KAVYA REDDY	15NM1A0509	THINKSYNQ	VIEW/TP/20190158
113.	B SURYAMANI	15NM1A0511	THINKSYNQ	VIEW/TP/20190159
114.	B K HIMA CHANDANA	15NM1A0512	THINKSYNQ	VIEW/TP/20190160
115.	B MOUNICA	15NM1A0514	THINKSYNQ	VIEW/TP/20190161
116.	C BHANU SRI	15NM1A0517	THINKSYNQ	VIEW/TP/20190162
117.	C LAKSHMI SREE	15NM1A0518	THINKSYNQ	VIEW/TP/20190163
118.	E NAGAJYOTHI	15NM1A0527	THINKSYNQ	VIEW/TP/20190165
119.	G MOULIKA	15NM1A0536	THINKSYNQ	VIEW/TP/20190166
120.	J HIMABINDU	15NM1A0540	THINKSYNQ	VIEW/TP/20190167
121.	K RISHITHA	15NM1A0544	THINKSYNQ	VIEW/TP/20190168
122.	K SIRISHA	15NM1A0545	THINKSYNQ	VIEW/TP/20190169
123.	K LAHARI	15NM1A0555	THINKSYNQ	VIEW/TP/20190170
124.	K NIKITHA	15NM1A0557	THINKSYNQ	VIEW/TP/20190171
125.	K HARITHA	15NM1A0558	THINKSYNQ	VIEW/TP/20190172

126.	P SUJATHA	15NM1A0590	THINKSYNQ	VIEW/TP/20190174
127.	SaI BHAVANA B	15NM1A0597	THINKSYNQ	VIEW/TP/20190175
128.	SHAIK PARVINE	15NM1A05A1	THINKSYNQ	VIEW/TP/20190176
129.	SHAIK SANA SHARIFA	15NM1A05A3	THINKSYNQ	VIEW/TP/20190177
130.	T VANDANA	15NM1A05B6	THINKSYNQ	VIEW/TP/20190180
131.	B DIVYANJALI	15NM1A05C4	THINKSYNQ	VIEW/TP/20190181
132.	G INDIRA	15NM1A05D3	THINKSYNQ	VIEW/TP/20190182
133.	G HARITHA	15NM1A05D8	THINKSYNQ	VIEW/TP/20190183
134.	M VASANTHI	15NM1A05E8	THINKSYNQ	VIEW/TP/20190185
135.	O M KEERTHI	15NM1A05F4	THINKSYNQ	VIEW/TP/20190186
136.	P SWARNALATA	15NM1A05F8	THINKSYNQ	VIEW/TP/20190187
137.	P MAHATHI	15NM1A05G1	THINKSYNQ	VIEW/TP/20190188
138.	R MOUNIKA	15NM1A05G5	THINKSYNQ	VIEW/TP/20190189
139.	T CHARISHMA	15NM1A05H0	THINKSYNQ	VIEW/TP/20190190
140.	G VENKATA LAKSHMI	16NM5A0504	THINKSYNQ	VIEW/TP/20190192
141.	K MANGA VENI	16NM5A0505	THINKSYNQ	VIEW/TP/20190193
142.	M RAJESWARI	16NM5A0507	THINKSYNQ	VIEW/TP/20190194
143.	B PAVANI	15NM1A0516	I PROCESS	VIEW/TP/20190027
144.	G SAISIREESHA	15NM1A0528	I PROCESS	VIEW/TP/20190029
145.	K LIKHITHA	15NM1A0543	I PROCESS	VIEW/TP/20190032
146.	K LIKHITHA	15NM1A0548	I PROCESS	VIEW/TP/20190033
147.	K PRATYUSHA	15NM1A0561	I PROCESS	VIEW/TP/20190035
148.	M SUSMITHA	15NM1A0566	I PROCESS	VIEW/TP/20190036
149.	R TRILAKSHMI	15NM1A0594	I PROCESS	VIEW/TP/20190039
150.	S MOHINI PRIYANKA	15NM1A0598	I PROCESS	VIEW/TP/20190040
151.	SHAIK KARISHMA	15NM1A05A2	I PROCESS	VIEW/TP/20190041
152.	T JAYA SRI	15NM1A05B0	I PROCESS	VIEW/TP/20190042
153.	T NEELIMA	15NM1A05B1	I PROCESS	VIEW/TP/20190043
154.	T PRAVALLIKA	15NM1A05B4	I PROCESS	VIEW/TP/20190045
155.	Y BHARATHI	15NM1A05C1	I PROCESS	VIEW/TP/20190046
156.	DIMPLE SANTOSHI	15NM1A05C9	I PROCESS	VIEW/TP/20190047
157.	G MAHATHI	15NM1A05D6	I PROCESS	VIEW/TP/20190049
158.	G LIKITHA	15NM1A05D7	I PROCESS	VIEW/TP/20190050
159.	C DEVI	16NM5A0502	I PROCESS	VIEW/TP/20190058
160.	D RAMYA SREE	15NM1A05C7	KKR GOWTHAM	VIEW/TP/20190397
161.	S SAILAVANYA	15NM1A05A8	TECHMBPS	VIEW/TP/20190369
162.	M GAYATHRI	15NM1A05F1	TECHMBPS	VIEW/TP/20190371
163.	K V L SUSMITHA	15NM1A0547	ABIBA	VIEW/TP/20190295
164.	P K S VISHALAKSHI	15NM1A05F6	FLEXTROICS	VIEW/TP/20190417
165.	G SANDHYA RANI	15NM1A0535	FOX CONN	VIEW/TP/20190389

Table B.4.5a Placement data of Computer Science and Engineering, 2018-19

In 2017-18, MNCs like ZOHO Software, TCS, IBM, Capgemini, Infosys, and other top MNCs visited the campus and selected 142 students with highest package of 4.5 LPA and an average of 2.71 LPA.

Placement data of Computer Science and Engineering, 2017-18				
Sl. No	**Name of the student placed**	**Enrollment No.**	**Name of the Employer**	**Appointment letter Reference No. with date**
1.	M LAKSHMI LAVANYA	14NM1A0566	ZOHO SOFTWARE	ZCPL-2528/2/2018
2.	A SUBRAMANYAESWARI	14NM1A0503	TCS	VIEW/TP/20170013
3.	K PAVANI	14NM1A0555	TCS	VIEW/TP/20170020
4.	K GAYATRI	14NM1A0557	TCS	VIEW/TP/20170027
5.	K SIRISHA	14NM1A0559	TCS	VIEW/TP/20170033
6.	M SAILAJA	14NM1A0568	TCS	VIEW/TP/20170039
7.	D VIJAYA SINDHUJA	14NM1A0530	TCS	VIEW/TP/20170055
8.	D V L PRASANNA	14NM1A0527	ACCENTURE	VIEW/TP/20170047
9.	B HARSHAVARSHINI	14NM1A0505	ACCENTURE	VIEW/TP/20170137
10.	D UMA MAHESWARI	14NM1A0526	ADP PVT LTD	VIEW/TP/20170053
11.	SAI PRABAHA D	14NM1A0520	FLUNTGRID	VIEW/TP/20170061
12.	K SUDHA MANASA	14NM1A0558	FLUNTGRID	VIEW/TP/20170141
13.	A DHINEESHA	14NM1A0502	IBM	VIEW/TP/20170110
14.	C KARISHMA	14NM1A0516	IBM	VIEW/TP/20170157
15.	K JHANSI RANI	14NM1A0550	IBM	VIEW/TP/20170201
16.	K SAHANA	14NM1A0552	IBM	VIEW/TP/20170210
17.	L JAYA MADHURI	14NM1A0561	IBM	VIEW/TP/20170217
18.	M SREEJA REDDY	14NM1A0564	IBM	VIEW/TP/20170224
19.	N VENKATA SRAVANI	14NM1A0576	IBM	VIEW/TP/20170230
20.	P VEENA MADHURI	14NM1A0588	IBM	VIEW/TP/20170236
21.	Y RENUKA	14NM1A05B0	IBM	VIEW/TP/20170242
22.	SHEETAL SINGH	14NM1A05F5	IBM	VIEW/TP/20170262
23.	K RAVALI	14NM1A0554	MINDTREE	VIEW/TP/20170095
24.	P ALEKHYA	14NM1A0589	MOURITECH	VIEW/TP/20170082
25.	AFSHEEN FIRDOUS	14NM1A0501	IBM	VIEW/TP/20170051
26.	C SUNITHA	14NM1A0515	IBM	VIEW/TP/20170139
27.	D KANAKARATNAM	14NM1A0531	IBM	VIEW/TP/20170171
28.	G HIMA BINDU	14NM1A0540	IBM	VIEW/TP/20170182
29.	K ARUNA KUMARI	14NM1A0548	IBM	VIEW/TP/20170192
30.	D PRIYANKA REDDY	14NM1A05C9	IBM	VIEW/TP/20170247
31.	K SUPRAJA	14NM1A05D6	IBM	VIEW/TP/20170252
32.	R HARIKA	14NM1A05F1	IBM	VIEW/TP/20170257
33.	C MOUNIKA	15NM5A0503	IBM	VIEW/TP/20170267
34.	B KUSUMANJALI	14NM1A0506	INFOSYS	VIEW/TP/20170065

35.	D N SIVA SAI KUMARI	14NM1A0518	INFOSYS	VIEW/TP/20170115
36.	E BHARGAVI	14NM1A0532	INFOSYS	VIEW/TP/20170143
37.	K RAJMA	14NM1A0542	INFOSYS	VIEW/TP/20170161
38.	K SATYA PUSHPANJALI	14NM1A0549	INFOSYS	VIEW/TP/20170172
39.	L HEMALATHA	14NM1A0560	INFOSYS	VIEW/TP/20170183
40.	S SANDHYA RANI	14NM1A0596	INFOSYS	VIEW/TP/20170193
41.	G ANUSHA	14NM1A05D0	INFOSYS	VIEW/TP/20170202
42.	KEERTHI NEERUKONDA	14NM1A05D7	INFOSYS	VIEW/TP/20170211
43.	S MONIKA	14NM1A05F6	INFOSYS	VIEW/TP/20170218
44.	C ESWARAMMA	15NM5A0504	INFOSYS	VIEW/TP/20170225
45.	B SHIVANI	14NM1A0507	NEUDESIC	VIEW/TP/20170066
46.	B PRASANTHI	14NM1A0511	CAPGEMINI	HR/Campus/201842474
47.	K SAI MOUNICA	14NM1A0544	CAPGEMINI	HR/Campus/201842475
48.	B VINISHA VAISHNAVI	14NM1A05C2	CAPGEMINI	HR/Campus/201842484
49.	D TEJASWINI	14NM1A0521	CAPGEMINI	HR/Campus/201842497
50.	AAKIDA BEGUM	14NM1A05B6	CAPGEMINI	HR/Campus/201842512
51.	D SULOCHANA	14NM1A0525	CAPGEMINI	HR/Campus/201842513
52.	LOHITHA C	14NM1A0563	CAPGEMINI	HR/Campus/201842515
53.	D DIVYANI	14NM1A05C7	CAPGEMINI	HR/Campus/201842517
54.	SIMRAN MALHOTRA	14NN1A0505	CAPGEMINI	HR/Campus/201842518
55.	G ANUSHA	14NM1A0537	CAPGEMINI	HR/Campus/201842527
56.	P GAYATRI	14NM1A0580	CAPGEMINI	HR/Campus/201842530
57.	V SAIANUSHA	14NM1A05G2	CAPGEMINI	HR/Campus/201842531
58.	V RENUKA	14NM1A05A4	CAPGEMINI	HR/Campus/201842532
59.	P SANDHYA	14NM1A0578	CAPGEMINI	HR/Campus/201842545
60.	B R SUSANDHYA HARINI	14NM1A0508	CAPGEMINI	HR/Campus/201842547
61.	B HIMA VARDHINI	14NM1A0509	CAPGEMINI	HR/Campus/201842548
62.	G OJESWANI	14NM1A0538	CAPGEMINI	HR/Campus/201842555
63.	M ALEKHYA	14NM1A0565	CAPGEMINI	HR/Campus/201842556
64.	D AMRITA VARMA	14NM1A05C8	CAPGEMINI	HR/Campus/201842557
65.	J SRAVANI	15NM5A0508	CAPGEMINI	HR/Campus/201842562
66.	V SUBHASRI	14NM1A05A9	CAPGEMINI	HR/Campus/201842563
67.	N BHAVANI	14NM1A05E4	CAPGEMINI	HR/Campus/201842564
68.	G LAVANYA	14NM1A0535	CAPGEMINI	HR/Campus/201842566
69.	N T KALA PAVANI	14NM1A0573	CAPGEMINI	HR/Campus/201842575
70.	P NAVYA	14NM1A0583	CAPGEMINI	HR/Campus/201842576
71.	G SOWMYA	14NM1A05D2	CAPGEMINI	HR/Campus/201842577
72.	V M RAJA RAJESWARI	14NM1A05A6	CAPGEMINI	HR/Campus/201842579
73.	B RAVI TEJESWARI	14NM1A0512	CAPGEMINI	HR/Campus/201842580
74.	O SUNITHA	14NM1A0577	COGNIZANT(CTS)	VIEW/TP/20170088
75.	C THANUJA	14NM1A0514	FACE	VIEW/TP/20170073
76.	D RAVI CHANDRIKA	14NM1A0528	FACE	VIEW/TP/20170122
77.	G GOWRI PRIYANKA	14NM1A0539	FACE	VIEW/TP/20170145
78.	K HEMAJACINTHA	14NM1A0547	FACE	VIEW/TP/20170163
79.	S POOJA	14NM1A0593	FACE	VIEW/TP/20170185
80.	C ALEKHYA	14NM1A05C4	FACE	VIEW/TP/20170195
81.	K SUSHMITHA	14NM1A05D5	FACE	VIEW/TP/20170213

82.	P SOWJANYA	14NM1A05E7	FACE	VIEW/TP/20170220
83.	C BHAVANA LAKSHMI	15NM5A0502	FACE	VIEW/TP/20170227
84.	T SANDHYA RANI	15NM5A0512	FACE	VIEW/TP/20170233
85.	VARRE PAVANI	14NM1A05A7	THINKTEL	VIEW/TP/20170005
86.	Y HARIKA	14NM1A05B2	THINKTEL	VIEW/TP/20170014
87.	Y JAYA LAKSHMI	14NM1A05B3	THINKTEL	VIEW/TP/20170021
88.	B CHAARVI	14NM1A05B8	THINKTEL	VIEW/TP/20170028
89.	B VINEELA	14NM1A05B9	THINKTEL	VIEW/TP/20170034
90.	B JAYASRI	14NM1A05C0	THINKTEL	VIEW/TP/20170040
91.	S KEERTHI	15NM5A0509	THINKTEL	VIEW/TP/20170044
92.	S VAISHALI	13NM1A05B3	THINKTEL	VIEW/TP/20170046
93.	A KRUPA CHELSIA	14NM1A0504	THINKTEL	VIEW/TP/20170049
94.	C ANITHA	14NM1A0513	THINKTEL	VIEW/TP/20170109
95.	D BHAVANI	14NM1A0522	THINKTEL	VIEW/TP/20170138
96.	RENUKA D	14NM1A0523	THINKTEL	VIEW/TP/20170156
97.	SNEHA D	14NM1A0529	THINKTEL	VIEW/TP/20170170
98.	G ANUSHA	14NM1A0536	THINKTEL	VIEW/TP/20170181
99.	K SOWJANYA	14NM1A0546	THINKTEL	VIEW/TP/20170191
100.	N R YADAV	14NM1A0572	THINKTEL	VIEW/TP/20170200
101.	N SUMANANJALI	14NM1A0575	THINKTEL	VIEW/TP/20170209
102.	B MURIEL SUPRIYA	14NM1A05C3	THINKTEL	VIEW/TP/20170223
103.	G SIRISHA	14NM1A05D4	THINKTEL	VIEW/TP/20170229
104.	P BHARGAVI	14NM1A05E6	THINKTEL	VIEW/TP/20170235
105.	C APARNA	15NM5A0501	THINKTEL	VIEW/TP/20170241
106.	S PUSPALATHA	15NM5A0511	THINKTEL	VIEW/TP/20170246
107.	P PRASOONA	14NM1A0581	ACE	VIEW/TP/20170083
108.	RAVALI	14NM1A05F2	AMAZON	VIEW/TP/20170069
109.	P LAVANYA	14NM1A0579	VDART SOFT	VIEW/TP/20170011
110.	P ROHINI	14NM1A0585	VDART SOFT	VIEW/TP/20170018
111.	P SIREESA	14NM1A0590	VDART SOFT	VIEW/TP/20170025
112.	S SANTHOSHI	14NM1A0595	VDART SOFT	VIEW/TP/20170032
113.	T MOUNICA	14NM1A0597	VDART SOFT	VIEW/TP/20170038
114.	V ARUNA KUMARI	14NM1A05A0	VDART SOFT	VIEW/TP/20170043
115.	M V L P HASHWITHA	14NM1A05E2	KARVY	VIEW/TP/20170093
116.	M VINISHA	14NM1A0567	KIMS ICON	VIEW/TP/20170100
117.	D NAGAMANI	14NM1A0519	SUTHERLAND	VIEW/TP/20170067
118.	G MOUNIKA	14NM1A0534	SUTHERLAND	VIEW/TP/20170117
119.	K LAKSHMI PRASANNA	14NM1A0543	SUTHERLAND	VIEW/TP/20170144
120.	K MADHAVI	14NM1A0551	SUTHERLAND	VIEW/TP/20170162
121.	V POOJASRI REDDY	14NM1A05A8	SUTHERLAND	VIEW/TP/20170184
122.	G BHAVANI	14NM1A05D1	SUTHERLAND	VIEW/TP/20170194
123.	SUNITHA SAHU	14NM1A05F7	SUTHERLAND	VIEW/TP/20170203
124.	T UMA	14NM1A05F8	SUTHERLAND	VIEW/TP/20170212
125.	C BHARATHI	15NM5A0505	SUTHERLAND	VIEW/TP/20170219
126.	A K SATYA MALAVIKA	14NM1A05B7	TECH MAHINDRA	VIEW/TP/20170096
127.	V TEJASWINI	14NM1A05G5	TECH MAHINDRA	VIEW/TP/20170134
128.	Y N V SWATHI	14NM1A05G6	TECH MAHINDRA	VIEW/TP/20170153

129.	G SAI PRATHYUSHA	14NM1A05D3	CHARTER INC	VIEW/TP/20170081
130.	D LAVANYA	15NM5A0506	SACHIVALAYAM	VIEW/TP/20170107
131.	V N S LAVANYA	14NM1A05A5	SACHIVALAYAM	VIEW/TP/20170136
132.	SAI SWATHI M	14NM1A05F3	HCL	VIEW/TP/20170056
133.	V PADMA SREE	14NM1A05G4	NAVAJNA TECH	VIEW/TP/20170098
134.	I SWATHI	15NM5A0507	NSC LAB	VIEW/TP/20170106
135.	SHAIK ASMAN	15NM5A0510	OMNI CLOUD	VIEW/TP/20170099
136.	N HIMA BINDU	14NM1A0574	TRACXN TECH	VIEW/TP/20170084
137.	B V VASUNDHARA	14NM1A0510	VLUEYONDER	VIEW/TP/20170010
138.	P DEVI SRI CHANDANA	14NM1A0587	IT KA KAAM	VIEW/TP/20170077
139.	D HIMA BINDU	14NM1A0517	CPGC PVT LTD	VIEW/TP/20170123
140.	V TEJASWI	14NM1A05A3	DXC TECH	VIEW/TP/20170089
141.	Y GEETANJALI	14NM1A05B1	ESIDILITY INFO	VIEW/TP/20170060
142.	S HARINI	14NM1A0594	GENPACT	VIEW/TP/20170076

Table B.4.5b: Placement data of Computer Science and Engineering, 2017-18

In 2016-17, MNCs like Juspay, Microsoft, Innocore Digit, Open Text, TCS, Tech Mahindra, Capgemini, and other top MNCs visited the campus and selected 123 students with highest package of 12 LPA and an average of 2.67 LPA.

Placement data of Computer Science and Engineering, 2016-17				
Sl. No	**Name of the student placed**	**Enrollment No.**	**Name of the Employer**	**Appointment letter Reference No. with date**
1.	P MOWNIKA	14NM5A0519	JUSPAY	VIEW/TP/20170020
2.	B P BHARGAVI	13NM1A0516	MICROSOFT	VIEW/TP/20170024
3.	B VILLI JAGRUTHI	13NM1A0521	MICROSOFT	VIEW/TP/20170056
4.	T HARITHA	13NM1A05B9	INNCORE	VIEW/TP/20170014
5.	B KEERTHI	13NM1A0517	OPEN TEXT	VIEW/TP/20170027
6.	B M LAKSHMI	14NM5A0502	OPEN TEXT	VIEW/TP/20170058
7.	B BHARATHI	13NM1A0519	FLUENTGRID	VIEW/TP/20170011
8.	J SRAVYA	13NM1A0550	FLUENTGRID	VIEW/TP/20170053
9.	N A PRIYANKA	13NM1A0584	FLUENTGRID	VIEW/TP/20170070
10.	B MEENA	13NM1A0514	TCS	VIEW/TP/20170041
11.	S DIVYASRI	14NM5A0521	TCS	VIEW/TP/20170065
12.	G ANITHA	13NM1A0543	TECH MAHINDRA	1488747/ELTP/2017
13.	G HEMA SAI SREE	13NM1A0544	TECH MAHINDRA	1488748/ELTP/2017
14.	J HARIKA	13NM1A0549	TECH MAHINDRA	1488749/ELTP/2017
15.	K D BHAVANI	13NM1A0557	TECH MAHINDRA	1488750/ELTP/2017
16.	K SNEHA	13NM1A0562	TECH MAHINDRA	1488751/ELTP/2017
17.	M R BHAVANI	13NM1A0570	TECH MAHINDRA	1488752/ELTP/2017
18.	M SINDHURA	13NM1A0576	TECH MAHINDRA	1488753/ELTP/2017
19.	P DEVI BHAVYA	13NM1A0588	TECH MAHINDRA	1488754/ELTP/2017
20.	P LAVANYA	13NM1A0592	TECH MAHINDRA	1488755/ELTP/2017
21.	B PRATYUSHA	13NM1A0598	TECH MAHINDRA	1488756/ELTP/2017

22.	SABEHA	13NM1A05A9	TECH MAHINDRA	1488757/ELTP/2017
23.	S R PATNAIK	13NM1A05B1	TECH MAHINDRA	1488758/ELTP/2017
24.	S TANOOJA RANI	13NM1A05B8	TECH MAHINDRA	1488759/ELTP/2017
25.	U ANUSHA	13NM1A05C3	TECH MAHINDRA	1488760/ELTP/2017
26.	V MANASA	13NM1A05C7	TECH MAHINDRA	1488761/ELTP/2017
27.	Y S SYAMALA	13NM1A05D1	TECH MAHINDRA	1488762/ELTP/2017
28.	B DIVYA	14NM5A0504	TECH MAHINDRA	1488763/ELTP/2017
29.	J PRASANNA	14NM5A0509	TECH MAHINDRA	1488764/ELTP/2017
30.	J KAVITHA	14NM5A0510	TECH MAHINDRA	1488765/ELTP/2017
31.	K DEVI	14NM5A0512	TECH MAHINDRA	1488766/ELTP/2017
32.	K RAVALI	13NM1A0560	TECH MAHINDRA	1488767/ELTP/2017
33.	D SANGEETHA	13NM1A0535	TECH MAHINDRA	1488814/ELTP/2017
34.	G SIREESHA	13NM1A0542	TECH MAHINDRA	1488816/ELTP/2017
35.	P LEELA	13NM1A05A1	TECH MAHINDRA	1488824/ELTP/2017
36.	P SHARMILA	13NM1A05A2	TECH MAHINDRA	1488825/ELTP/2017
37.	S SWATHI	13NM1A05B4	TECH MAHINDRA	1488826/ELTP/2017
38.	S DIVYA	13NM1A05B5	TECH MAHINDRA	1488827/ELTP/2017
39.	CHINNI SUSANNA	13NM1A0526	TECH MAHINDRA	1488830/ELTP/2017
40.	B VINODINI	13NM1A0518	TECH MAHINDRA	1488832/ELTP/2017
41.	D JHANSI	13NM1A0531	TECH MAHINDRA	1488836/ELTP/2017
42.	D ALEKHYA	13NM1A0536	TECH MAHINDRA	1488840/ELTP/2017
43.	M YAMINI	14NM5A0514	TECH MAHINDRA	1488841/ELTP/2017
44.	P SRAVANI	14NM5A0518	TECH MAHINDRA	1488842/ELTP/2017
45.	P SWATHI	13NM1A0596	TECH MAHINDRA	1488846/ELTP/2017
46.	A PRATYUSHA	13NM1A0511	TECH MAHINDRA	1488847/ELTP/2017
47.	A D S KRANTHI	13NM1A0508	TECH MAHINDRA	1488848/ELTP/2017
48.	C SOWMYA	13NM1A0523	TECH MAHINDRA	1488850/ELTP/2017
49.	D BHAVANI	13NM1A0529	TECH MAHINDRA	1488852/ELTP/2017
50.	D ALEKHYA	13NM1A0533	TECH MAHINDRA	1488854/ELTP/2017
51.	Y M V SWETHA	13NM1A05D3	CAPGEMINI	HR/Campus/2017101482
52.	P ANVESHITHA	13NM1A0585	CAPGEMINI	HR/Campus/2017101487
53.	C RENUKA	14NM5A0507	CICIUS TECH	VIEW/TP/20170003
54.	A SRI VATSAVI	13NM1A0507	GENPACT	VIEW/TP/20170012
55.	K KALYANI	13NM1A0566	GENPACT	VIEW/TP/20170054
56.	M MANASA	14NM5A0515	THOUGHTWAVE	VIEW/TP/20170044
57.	C APARNA	13NM1A0527	EXPERIS IT	VIEW/TP/20170009
58.	K S PRIYA	13NM1A0558	EXPERIS IT	VIEW/TP/20170051
59.	P RAGINI	13NM1A0586	EXPERIS IT	VIEW/TP/20170069
60.	R DEVI SOWJANYA	13NM1A05A6	EXPERIS IT	VIEW/TP/20170080
61.	T DIVYASRI	13NM1A05C2	EXPERIS IT	VIEW/TP/20170087
62.	C SNEHA	13NM1A0525	DELL	VIEW/TP/20170007
63.	B SARANYA	14NM5A0505	EGS-INFOTECH	VIEW/TP/20170008
64.	B DEVISRI	14NM5A0506	GITAM UNIV	VIEW/TP/20170106
65.	A SARVANI	13NM1A0503	HCL	VIEW/TP/20170110
66.	A SRIMANJU	13NM1A0509	HCL	VIEW/TP/20170130
67.	A SRAVYA	13NM1A0510	HCL	VIEW/TP/20170142
68.	B JASMITHA	13NM1A0512	HCL	VIEW/TP/20170154

69.	B SRUJANA	13NM1A0513	HCL	VIEW/TP/20170166
70.	B B J RAVALI	13NM1A0515	HCL	VIEW/TP/20170178
71.	B VARA LAKSHMI	13NM1A0522	HCL	VIEW/TP/20170190
72.	D VIJAYA	13NM1A0538	HCL	VIEW/TP/20170202
73.	K GEETANJALI	13NM1A0553	HCL	VIEW/TP/20170214
74.	K BHAVANA	13NM1A0555	HCL	VIEW/TP/20170217
75.	K AKHILA	13NM1A0561	HCL	VIEW/TP/20170219
76.	M LASYA RAVALI	13NM1A0577	HCL	VIEW/TP/20170223
77.	N SARIKA	13NM1A0581	HCL	VIEW/TP/20170225
78.	V RAJESWARI	14NM5A0522	HCL	VIEW/TP/20170323
79.	M SWATHI PRIYA	12NM1A0563	HCL	VIEW/TP/20170324
80.	ROJA D	12NM1A0594	HCL	VIEW/TP/20170325
81.	K MADHURI	13NM1A0552	LIC	VIEW/TP/20170022
82.	N POOJA	13NM1A0583	METRIX LAB	VIEW/TP/20170023
83.	K B S KUMARI	13NM1A0554	MIRCALE SOFT	VIEW/TP/20170057
84.	A ANITHA	13NM1A0505	NBC TECH	VIEW/TP/20170026
85.	P L VAIBHAVI	13NM1A0594	SERCO GOOGLE	VIEW/TP/20170074
86.	N SUBHA SRI	14NM5A0516	St. JOSEPH COLL	VIEW/TP/20170038
87.	A BHARGAVI	13NM1A0502	SUTHERLAND	VIEW/TP/20170039
88.	B DEVI	13NM1A0520	SUTHERLAND	VIEW/TP/20170084
89.	D LAVANYA	13NM1A0530	SUTHERLAND	VIEW/TP/20170091
90.	D R SHANTHI	13NM1A0537	SUTHERLAND	VIEW/TP/20170096
91.	G SUDHESHNA	13NM1A0539	SUTHERLAND	VIEW/TP/20170099
92.	G V RATNA MALA	13NM1A0540	SUTHERLAND	VIEW/TP/20170102
93.	G HARIKA	13NM1A0541	SUTHERLAND	VIEW/TP/20170105
94.	J PRANATHI	13NM1A0548	SUTHERLAND	VIEW/TP/20170114
95.	SAHU K RASHMI	13NM1A0551	SUTHERLAND	VIEW/TP/20170116
96.	K DIVYA	13NM1A0556	SUTHERLAND	VIEW/TP/20170118
97.	K SWATHI	13NM1A0565	SUTHERLAND	VIEW/TP/20170120
98.	M D BHAVANI	13NM1A0578	SUTHERLAND	VIEW/TP/20170123
99.	M DEEPIKA	13NM1A0580	SUTHERLAND	VIEW/TP/20170124
100.	N LIKHITHA	13NM1A0582	SUTHERLAND	VIEW/TP/20170125
101.	V DIVYA	13NM1A05C6	SUTHERLAND	VIEW/TP/20170132
102.	Y NAVEENA	13NM1A05D2	SUTHERLAND	VIEW/TP/20170133
103.	B V BHARATHI	14NM5A0503	SUTHERLAND	VIEW/TP/20170134
104.	K USHA INDRAJA	14NM5A0511	SUTHERLAND	VIEW/TP/20170135
105.	P LALITHA	14NM5A0517	SUTHERLAND	VIEW/TP/20170136
106.	L MANASA	13NM1A0567	SUTHERLAND	VIEW/TP/20170209
107.	L L KUMARI	13NM1A0569	SUTHERLAND	VIEW/TP/20170210
108.	M R CHOWDARY	13NM1A0571	SUTHERLAND	VIEW/TP/20170211
109.	M RIZWANA	13NM1A0573	SUTHERLAND	VIEW/TP/20170212
110.	M DEEPTHI	13NM1A0575	SUTHERLAND	VIEW/TP/20170213
111.	P HARINI SREE	13NM1A0589	SUTHERLAND	VIEW/TP/20170216
112.	C SHANTHI	13NM1A0524	TECTURA INFO	VIEW/TP/20170042
113.	K JHANSI	13NM1A0564	TECTURA INF	VIEW/TP/20170066
114.	S L SATYA JYOTHI	13NM1A05B6	TECTURA INF	VIEW/TP/20170077
115.	S V N SRI VALLI	13NM1A05B2	TEMPLES TECH	VIEW/TP/20170043

116.	D S MOUNIKA	13NM1A0528	HGS	VIEW/TP/20170131
117.	G DIVYA	13NM1A0532	HGS	VIEW/TP/20170143
118.	D PALLAVI	13NM1A0534	HGS	VIEW/TP/20170155
119.	G MANASA	13NM1A0545	HGS	VIEW/TP/20170167
120.	R SUSHMA	13NM1A05A5	HGS	VIEW/TP/20170191
121.	T VASAVI	13NM1A05C1	HGS	VIEW/TP/20170203
122.	V L BHAVANI	13NM1A05C9	HGS	VIEW/TP/20170215
123.	D SOWJANYA	14NM5A0508	HGS	VIEW/TP/20170218
124.	K B SAI ARUNA	14NM5A0513	HGS	VIEW/TP/20170220
125.	P K KARUNA	14NM5A0523	HGS	VIEW/TP/20170222
126.	J VASAVI	13NM1A0547	INTELCT	VIEW/TP/20170015
127.	T MARY GRACY	13NM1A05C0	PATHRA TECH	VIEW/TP/20170028
128.	V VASUNDHARA	13NM1A05C5	PUPIL DESK	VIEW/TP/20170032
129.	K G L PRIYANKA	13NM1A0563	SAZAKX	VIEW/TP/20170033
130.	S L PRASANNA	14NM5A0520	GOVT SECTOR	VIEW/TP/20170108
131.	B DEVI	14NM5A0501	GURJADA IT	VIEW/TP/20170109

Table B.4.5c Placement Data of Computer Science and Engineering, 2016-17

4.6. Professional Activities (20)

4.6.1. Professional societies/chapters and organizing engineering events (5)

(The Department shall provide relevant details)

Department of Computer Science and Engineering is associated with various professional societies and student chapters to aware the needs of industry 4.0. The co-circular and extra circular events are organized in collaboration with professional bodies/ student chapters. They assist the students by providing internships on their platform which enhances the real time technical skills on domains like Machine Learning, Web development, project management etc.

Sl. No	Professional Society	Logo
1.	IEI (The Institution of Engineers)	
2.	Code chef Student Chapter	
3.	Internshala Student partner	

4.	CSEA (Champions of Software Enigma Student Association Chapter)	
5.	AISEC (International Association of Students in Economic and Commercial Sciences)	
6.	Women Tech makers	
7.	APSSDC – Skill Development Centre	
8.	Microsoft Student Partner	
9.	Google Develop Group	

Table B.4.6.1a: List of Professional society / Student chapters

Sl. No	Name of the Professional society students chapter	Student Memberships		
		2019-20	2018-19	2017-18
1.	IEI	140	245	-
2.	Codechef Student Chapter	16	10	-
3.	Internshala Student partner	110	90	60
4.	CSEA (Champions of Software Enigma Student Association Chapter)	574	566	542
5.	AISEC (International Association of Students in Economic and Commercial Sciences)	26	12	10
6.	Women Tech makers	30	18	12
7.	APSSDC – Skill Development Centre	574	566	542
8.	Microsoft Student Partner	29	15	11
9.	Google Develop Group	32	24	17

Table B.4.6.1b: Student Memberships in Professional society / Student chapters

Sl. No	Name of the Professional society students chapter	Events Organized		
		2019-20	2018-19	2017-18
1.	IEI	4	2	-
2.	CodeChef Student Chapter	1	1	-
3.	Internshala Student partner	2	1	2
4.	CSEA (Champions of Software Enigma Association)	10	9	17
5.	AISEC (Association of Students in Economic and Commercial Sciences)	3	2	1
6.	Women Tech makers	2	2	1
7.	Microsoft Student Partner	3	1	1
8.	Google Develop Group	2	1	-
9.	APSSDC- Skill Development Centre	2	5	2

Table B.4.6.1c: Number of Events organized

Events organized in 2019-20						
Sl. No	**Type of Activity**	**Name of the Event**	**Dates of Events**	**Professional organization**	**No. of students Participated**	**Relevance to POs , PSOs**
1.	Workshop	Web Technologies Using Python.	19-08-2019 to 28-08-2019	IEI	198	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	Workshop	Android Botics & Android Based Robotics	24-12-2019 to 25-12-2019	IEI	98	PO1, PO2, PO3, PO5, PSO1, PSO2
3.	Workshop	Cyber Security And Ethical Hacking	09-09-2019 to 10-09-2019	Adiroha Solutions in association with IEI	100	PO1, PO2, PO3, PO5, PSO1, PSO2
4.	Workshop	Machine Learning Using Python	06-03-2020 to 07-03-2020	Aakar IIT Bombay association with IEI	72	PO1, PO2, PO3, PO5, PSO1, PSO2
5.	Workshop	MSTP Workshop	20-08-2019 to 28-02-2020	APSSDC	60	PO1, PO2, PO3, PO5, PSO1, PSO2
6.	Workshop	Progressive Web Apps	06-03-2020 to 07-03-2020	APSSDC	125	PO1, PO2, PO3, PO5, PSO1, PSO2
7.	Workshop	The intensive workshop on data science	09-12-2019 to 11-12-2019	Women Tech makers	120	PO1, PO2, PO3, PO5, PSO1, PSO2
8.	Workshop	Machine Learning,	09-03-2020	Internshala		PO1, PO2,

		Computer Vision, Image Processing	to 11-03-2020	Student Partner	60	PO3, PO5, PSO1, PSO2
9.	Workshop	GOOGLE Android Developer Fundamental Workshop Phase-I	05-03-2020 to 07-03-2020	CSEA	60	PO1, PO2, PO3, PO5, PSO1, PSO2
10.	Workshop	Android Application Development	08-03-2020	CSEA	60	PO1, PO2, PO3, PO5, PSO1, PSO2
11.	Seminar	Cyber security	22-08-2019	AISEC	100	PO3, PO5, PSO1, PSO2
12.	Seminar	Deep Learning And AI	16-03-2020	Internshala Student Partner	120	PO3, PO5, PSO1, PSO2
13.	Seminar	Seminar on Industry 4.0	29-06-2019	CSEA	60	PO3, PO5, PSO1, PSO2
14.	Seminar	Environmental Seminar	18-07-2019	CSEA	80	PO3, PO5, PO10, PSO1, PSO2
15.	Guest Lecture	Guest lecture on OpenCV 4.0	20-08-2019	Microsoft Student Partner	120	PO3, PO5, PSO1, PSO2
16.	Guest Lecture	Big Data	01-07-2019	Google Develop Group	65	PO3, PO5, PSO1, PSO2
17.	Guest Lecture	Meet up on Deep learning and AI	28-08-2019	Women Tech makers	65	PO3, PO5, PSO1, PSO2
18.	Guest Lecture	Block Chain Technology and Its Applications	26-12-2019	AISEC	105	PO3, PO5, PSO1, PSO2
19.	Guest Lecture	Bridging the Gap Between industry and Academia	26-12-2019	AISEC	87	PO3, PO5, PSO1, PSO2
20.	Competition	Debugging level-1	26-12-2019	Microsoft Student Partner	152	PO4, PO5, PO9, PSO1, PSO2
21.	Competition	Debugging level-2	02-03-2020	Microsoft Student Partner	95	PO4, PO5, PO9, PSO1, PSO2
22.	Competition	Google Hash Code	26-12-2019	Google Develop Group	90	PO4, PO5, PO9, PSO1, PSO2
23.	Competition	Programming	26-04-2020	Code Chef	468	PO4, PO5,

		Languages				PO9, PSO1, PSO2
24.	Competition	Technical Quiz	05-09-2019	CSEA	300	PO4, PO5, PO9, PSO1, PSO2
25.	Competition	Idea Presentation	21-09-2019 to 23-09-2019	CSEA	5*15 Teams	PO4, PO5, PO9, PSO1, PSO2
26.	Competition	Artsy Lens	03-12-2019	CSEA	40	PO4, PO5, PO9, PSO1, PSO2
27.	Competition	Poster presentation	26-12-2019	CSEA	40	PO4, PO5, PO9, PSO1, PSO2
28.	Competition	Paper presentation	26-12-2019	CSEA	30	PO4, PO5, PO9, PSO1, PSO2
29.	Competition	Live Models	26-12-2019	CSEA	12	PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.1d: Events organized in 2019-20

Events organized in 2018-19						
Sl. No	**Type of Activity**	**Name of the Event**	**Dates of Events**	**Professional organization**	**No. of students participated**	**Relevance to POs, PSOs**
1.	Workshop	Android Development Certification	08-05-2018 to 14-05-2018	APSSDC and UDEMY	21	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
2.	Workshop	Android Development Certification	11-08-2018 to 16-08-2018	APSSDC and UDEMY	69	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
3.	Workshop	Google Android Fundamentals Phase-2	21-09-2018 to 23-09-2018	APSSDC	48	PO1, PO2, PO3, PO5, PSO1, PSO2
4.	Workshop	AI and Soft Computing	06-12-2018 to 08-12-2018	Microsoft Student Partner	50	PO1, PO2, PO3, PO5, PSO1, PSO2
5.	Workshop	Game development	07-01-2019 to	Women Tech makers	45	PO1, PO2, PO3, PO5,

		using Build Box	10-01-2019			PSO1, PSO2
6.	Workshop	Workshop on Robotics	11-02-2018 to 12-02-2018	CSEA	5*10 teams 50	PO1, PO2, PO3, PO5, PSO1, PSO2
7.	Workshop	Google Android Fundamental Workshop	11-08-2018 to 16-08-2018	CSEA	60	PO1, PO2, PO3, PO5, PSO1, PSO2
8.	Workshop	Mean Stack Development	16-08-2018 to 18-08-2018	CSEA	60	PO1, PO2, PO3, PO5, PSO1, PSO2
9.	Seminar	A Seminar on Cyber Security	10-01-2019	Internshala Student partner	70	PO3, PO5, PO10, PSO1, PSO2
10.	Seminar	Machine learning with R programming	10-01-2019	AISEC	70	PO3, PO5, PO10, PSO1, PSO2
11.	Seminar	Women empowerment	10-01-2019	Women Tech makers	60	PO3, PO5, PO10, PSO1, PSO2
12.	Seminar	Cyber Security Fundamentals by CISCO	25-07-2018	CSEA	60	PO1, PO2, PO3, PO5, PSO1, PSO2
13.	Guest Lecture	Concurrent Programming	20-02-2019	IEI	95	PO3, PO5, PSO1, PSO2
14.	Guest Lecture	Importance of IoT in Marine Engineering	02-05-2019	IEI	120	PO3, PO5, PSO1, PSO2
15.	Guest Lecture	Seminar on Recent trends in Emerging Technologies	10-01-2019	AISEC	60	PO3, PO5, PSO1, PSO2
16.	Competition	Hour of code	26-04-2019	Google Develop Group	140	PO4, PO5, PO9, PSO1, PSO2
17.	Competition	Programming Languages	25-04-2019	Code chef Student Chapter	150	PO4, PO5, PO9, PSO1, PSO2
18.	Competition	Science quiz	06-04-2018	CSEA	72	PO4, PO5, PO9, PSO1, PSO2
19.	Competition	Story writing	12-07-2018	CSEA	26	PO4, PO5, PO9, PSO1, PSO2

20.	Competition	Words in words	22-09-2018	CSEA	53	PO4, PO5, PO9, PSO1, PSO2
21.	Competition	Live models	27-04-2019	CSEA	5*4 Teams 20	PO4, PO5, PO9, PSO1, PSO2
22.	Certification Course	UdaCity Nano Degree Program for Android Developer	18-01-2019 to 22-01-2019	APSSDC and Udemy	31	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
23.	Certification Course	IoT Certification	08-05-2018 to 14-05-2018	APSSDC and Coursera	10	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
24.	Certification Courses	Certification with AR & VR – Build box	26-12-2018 daily 2 hours 2 weeks	CSEA	23	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.1e: Events organized in 2018-19

Events organized in 2017-18						
Sl. No	**Type of Activity**	**Name of the Event**	**Dates of Events**	**Professional organization**	**No. of students participated**	**Relevance to POs, PSOs**
1.	Workshop	Google Android Fundamentals Phase - 1	07-12-2017 to 09-12-2017	APSSDC	75	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	Workshop	AWS Skill Guru Workshop	30-05-2018 to 31-05-2018	APSSDC	33	PO1, PO2, PO3, PO5, PSO1, PSO2
3.	Workshop	Bootstrap	21-07-2017 to 23-07-2017	Internshala Student partner	56	PO1, PO2, PO3, PO5, PSO1, PSO2
4.	Workshop	Cyber Security	28-11-2017 to 29-11-2017	Internshala Student partner	233	PO1, PO2, PO3, PO5, PSO1, PSO2
5.	Workshop	Workshop on IoT	14-09-2017 to 15-09-2017	CSEA	50	PO1, PO2, PO3, PO5, PSO1, PSO2
6.	Workshop	AP Cloud Mean Stack and Cloud Developer	27-11-2017 to 29-112017	CSEA	54	PO1, PO2, PO3, PO5, PSO1, PSO2

7.	Workshop	Intensive Workshop on Data Science	01-12-2017 to 03-12-2017	CSEA	50	PO1, PO2, PO3, PO5, PSO1, PSO2
8.	Seminar	Motivational Seminar by Mr. K.Venu Gopal	03-07-2017	CSEA	60	PO3, PO5, PO10, PSO1, PSO2
9.	Seminar	Effective Public Speaking	11-03-2018	CSEA	58	PO3, PO5, PO10, PSO1, PSO2
10.	Seminar	Personality Development Programme	17-03-2018	CSEA	55	PO3, PO5, PO10, PSO1, PSO2
11.	Seminar	Every end has a new beginning	17-03-2018	CSEA	70	PO3, PO5, PO10, PSO1, PSO2
12.	Guest Lecture	Current trends in the IT sector	13-12-2017	AISEC	59	PO3, PO5, PO10, PSO1, PSO2
13.	Guest Lecture	Women-health and hygiene	13-12-2017	Women Tech makers	78	PO3, PO5, PO10, PSO1, PSO2
14.	Guest Lecture	Effective self-management	13-12-2017	CSEA	75	PO3, PO5, PO10, PSO1, PSO2
15.	Competition	Debugging	10-12-2017	Microsoft Student Partner	250	PO4, PO5, PO9, PSO1, PSO2
16.	Competition	Technical quiz	12-12-2017	CSEA	90	PO4, PO5, PO9, PSO1, PSO2
17.	Competition	Smart ideas	12-12-2017	CSEA	224	PO4, PO5, PO9, PSO1, PSO2
18.	Competition	Programming Languages	12-12-2017	CSEA	124	PO4, PO5, PO9, PSO1, PSO2
19.	Competition	Best from the waste	12-12-2017	CSEA	323	PO4, PO5, PO9, PSO1, PSO2
20.	Competition	Tech Poster Design	12-12-2017	CSEA	300	PO4, PO5, PO9, PSO1, PSO2
21.	Competition	Live models	12-12-2017	CSEA	5Teams	PO4, PO5,

						PO9, PSO1, PSO2
22.	Competition	Idea presentation	12-12-2017	CSEA	60	PO4, PO5, PO9, PSO1, PSO2
23.	Competition	Poster presentation	12-12-2017	CSEA	32	PO4, PO5, PO9, PSO1, PSO2
24.	Competition	Paper presentation	12-12-2017	CSEA	40	PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.1f: Events organized in 2017-18

4.6.2. Publication of technical magazines, newsletters, etc. (5)

(The Department shall list the publications mentioned earlier along with the names of the editors, publishers, etc.)

The main objective of newsletter and annual magazine is to provide important news and updates as current as possible to make the stakeholders aware of the department significant information. Publishing a newsletter with the right tools and effective scheduling, can be a simple way to boost the entire communication plan by a few notches.

Newsletter Editorial Board for the Calendar year 2020

Editor-in-Chief	Dr. K. Vijaya Kumar, Head of the Department
Advisor	Dr. T. Radha Krishna Murthy, Professor of English
Sub-Editors	Mrs. Sk. Rahamunnisa, Asst. Professor Ms. Rita Roy, Asst. Professor
Board Members	Dr. P. Vijaya Bharati, Assoc. Professor Mr. Raju Imandi, Asst. Professor Ms. G. Sai Chandana (17NM1A0556) Ms.G.Vathsalya (17NM1A0545) Ms.K.Reshma (18NM1A0558) Ms.Y.Poorinima (18NM1A05G5)

Table B.4.6.2a: Newsletter Editorial Board for the Calendar year 2020

Newsletter Editorial Board for the Calendar year 2019

Editor-in-Chief	Dr. K. Vijaya Kumar, Head of the Department
Advisor	Dr. T. Radha Krishna Murthy, Professor of English
Sub-Editors	Mrs. Sk. Rahamunnisa, Asst. Professor Ms. Rita Roy, Asst. Professor
Board Members	Mrs. P. Vijaya Bharati, Assoc. Professor Mr. Raju Imandi, Asst. Professor Ms. K. Amrutha (16NM1A0557) Ms. G.Praharsha (16NM1A0539) Ms. P.S.S. Keerthi (17NM1A05C1) Ms.M.SaiBhavana (17NM1A05A1)

Table B.4.6.2b: Newsletter Editorial Board for the Calendar year 2019

Newsletter Editorial Board for the Calendar year 2018

Editor-in-Chief	Dr. K. Vijaya Kumar, Head of the Department
Advisor	Dr. T. Radha Krishna Murthy, Professor of English
Sub-Editors	Mrs. D. Kamala Kumari, Asst. Professor Ms. Rita Roy, Asst. Professor
Board Members	Mrs. P.Vijaya Bharati, Assoc. Professor Mr. L. Bhupathi Rao, Asst. Professor Ms. K.Madhumitha (15N1A0546) Ms.K.Bhavishya (15NM1A05D9) Ms. P.Harshitha (16NM1A0586) Ms.A.Anusha (16NM1A05C8)

Table B.4.6.2c: Newsletter Editorial Board for the Calendar year 2018

Newsletter Editorial Board for the Calendar year 2017

Editor-in-Chief	Mr. S.Ram Prasad Redddy , Head of the Department
Advisor	Dr. T. Radha Krishna Murthy, Professor of English
Sub-Editors	Mrs. D.Kamal Kumari, Asst. Professor Mr. B. A. Ganesh, Asst. Professor

Board Members	Mrs. P.Vijaya Bharati, Assoc. Professor Mr. L. Bhupathi Rao, Asst. Professor Ms. P. Sheetalsingh (14NM1A05F5 Ms.V.Meghana (14NM1A05A6) Ms. K . Pratyusha (15NM1A0561) Ms. A. Sireesha (15NM1A0508)

Table B.4.6.2d: Newsletter Editorial Board for the Calendar year 2017

Publication of Newsletters				
Sl. No	**Newsletter**	**Volume, Issue**	**Period**	**Publisher**
1.	VEGA	Volume 3, Issue 1	Jan 2017 - March 2017	Dept of CSE, VIEW
2.	VEGA	Volume 3, Issue 2	April 2017 – June 2017	Dept of CSE, VIEW
3.	VEGA	Volume 3, Issue 3	July 2017 - Sep 2017	Dept of CSE, VIEW
4.	VEGA	Volume 3, Issue 4	Oct 2017 - Dec 2017	Dept of CSE, VIEW
5.	VEGA	Volume 4, Issue-1	Jan 2018 - March 2018	Dept of CSE, VIEW
6.	VEGA	Volume 4, Issue-2	April 2018 - June 2018	Dept of CSE, VIEW
7.	VEGA	Volume 4, Issue-3	July 2018 - Sep 2018	Dept of CSE, VIEW
8.	VEGA	Volume 4, Issue-4	Oct 2018 - Dec 2018	Dept of CSE, VIEW
9.	VEGA	Volume 5, Issue-1	Jan2019 - March 2019	Dept of CSE, VIEW
10.	VEGA	Volume 5, Issue-2	April 2019 - June 2019	Dept of CSE, VIEW
11.	VEGA	Volume 5, Issue-3	July 2019 - Sep 2019	Dept of CSE, VIEW
12.	VEGA	Volume 5, Issue-4	Oct 2019 - Dec 2019	Dept of CSE, VIEW
13.	VEGA	Volume 6, Issue-1	Jan 2020 - March 2020	Dept of CSE, VIEW
14.	VEGA	Volume 6, Issue-2	April2020 - June2020	Dept of CSE, VIEW

Table B.4.6.2e: List of Publications of Newsletters

Publication of Department Annual Magazine				
Sl. No	**Annul Association day event**	**Magazines/ Newsletter Name**	**Period**	**Publisher**
1.	WISSENAIRE	Department Annual Magazine	Feb 2019 to Dec 2019	Dept of CSE, VIEW
2.	RIVIERA	Department Annual Magazine	Jan 2018 to Jan 2019	Dept of CSE, VIEW
3.	SYIRO	Department Annual Magazine	Feb 2017 to Dec 2017	Dept of CSE, VIEW

Table B.4.6.2f: List of Publications of Newsletters

4.6.3. Participation in inter-institute events by students of the program of study (10)

(The Department shall provide a table indicating those publications, which received awards in the events/ conferences organized by other institutes.)

Figure 4.6.3a: Bharat Book of World Records for Ms.G.Prashiptha

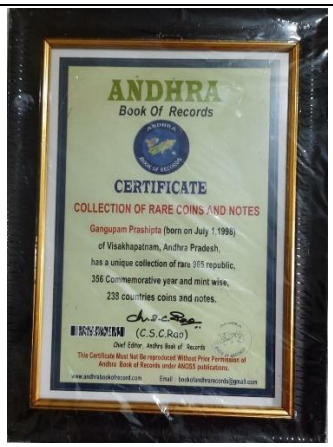


Figure 4.6.3b: Andhra Book of Records for Ms.G.Prashiptha

Figure 4.6.3c: KHO-KHO Team

Figure 4.6.3d: Throw ball Team

The students of VIEW won first position in KHO-KHO tournament and third position in Throw ball tournament, Central Zone sports meet held at Aditya Engineering College, Suramapalem Kakinada. Four students participated in KHO-KHO tournament and three students participated in Throw ball tournament from Department of CSE.

Department Achievements:

The students of Computer Science and Engineering bagged an opportunity to participate and enhance their learning skills in the area of latest trends in technology. They excelled their performance in various platforms like Microsoft WISE, Mission R&D, CII summit at BSE Mumbai and completing internships with stipends in top MNCs.

The faculties motivate the students continuously to explore their skills in latest technologies by participating in various inter-institute events. The Management encourages the faculties and students to organize and participate in inter-institute events by providing financial aid for registrations, travel, accommodation etc.

Sl. No	Name of the Achievement	Academic years	Total No of Students	
1.	Microsoft WISE (Women in Science and Engineering) program	2019-20	02	05
		2018-19	01	
		2017-18	02	
2.	Mission R&D	2019-20	03	05

		2018-19	01	
		2017-18	01	
3.	CII Summit	2018-19	01	01
4.	Internships with Stipend	2019-20	09	17
		2018-19	08	

Table B.4.6.3a: Students achievements

Microsoft WISE for 2019-20						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	17NM1A0515	B. Harshini	27-09-2019 to 18-09-2020	Microsoft WISE	Microsoft, Hyderabad	PO4, PO9, PSO1, PSO2
2.	17NM1A0557	G. Madhu Sri	27-09-2019 to 18-09-2020	Microsoft WISE	Microsoft, Hyderabad	PO4, PO9, PSO1, PSO2

Table B.4.6.3b: List of students selected for Microsoft WISE in 2019-20

Microsoft WISE for 2018-19						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	16NM1A0512	B. Niharika	27-09-2018 to 18-09-2019	Microsoft WISE	Microsoft, Hyderabad	P04, PO5, P09, PSO1, PSO2

Table B.4.6.3c: List of students selected for Microsoft WISE in 2018-19

Microsoft WISE for 2017-18						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	15NM1A0559	K. Madhavi	18-10-2017 to 24-08-2018	Microsoft WISE	Microsoft, Hyderabad	P04, PO5, P09, PSO1,PSO2
2.	15NM1A0556	K. Sushmitha	18-10-2017 to 24-08-2018	Microsoft WISE	Microsoft, Hyderabad	P04, PO5, P09, PSO1, PSO2

Table B.4.6.3d: List of students selected for Microsoft WISE in 2017-18

Mission R&D for 2019-20						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	17NM1A0509	A. Sri Rekha	27-09-2019 to 18-09-2020	Mission R&D	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
2.	17NM1A0530	Ch. Alekya	27-09-2019 to 18-09-2020	Mission R&D	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
3.	17NM1A0560	J. Kumari	27-09-2019 to 18-09-2020	Mission R&D	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2

Table B.4.6.3e: List of students selected for Mission R&D in 2019-20

Mission R&D for 2018-19						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	16NM1A0512	B.Niharika	17-09-2018 to 18-09-2019	Mission R&D	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2

Table B.4.6.3f: List of students selected for Mission R&D in 2018-19

Mission R&D for 2017-18						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	15NM1A0559	K. Madhavi	18-10-2017 to 24-08-2018	Mission R&D	GVP, Visakhapatnam	P04, PO5, P09, PSO1, PSO2

Table B.4.6.3g: List of students selected for Mission R&D in 2018-19

Internships with Stipend for 2019-20							
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Stipend per month**	**Relevance to POs/PSOs**
1.	17NM1A0568	K. Sahitya	12-10-2019 to Till date	Internship on Web development	Kalakar	2000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2

2.	17NM1A0596	M.Annapurna	15-6-2019 to 15-07-2019	Internship on Content writing	Raddsoon	3000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
3.	17NM1A0596	M. Annapurna	17-12-2019 to 17-02-2020	Internship	OSOS Pvt. Ltd	20,000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
4.	17NM1A05B6	Nupur Das	12-10-19 to till date	Internship on Web developm ent	Kalakar	2000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
5.	16NM1A0563	K. Bhavana	05-07-2020	HR	SkillConne ct Global private ltd	5000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
6.	16NM1A0504	A.S.Vaishnavi	19.08.2019 to till Date	Internship on Software Product Developm ent	MAQ software	20,000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
7.	16NM1A0574	M. Samyuktha	01-07-2019 to 31-08-2019	HR Manager	LUDIFU	15000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
8.	17NM1A05B3	N.S. Sandhya	Currently member of ISP	Internshal a student partner ISP15	ISP, Mumbai	500	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
9.	17NM1A05B6	Nupur Das	07-07-2019 to 12-07-2019	Internship s, Campus Ambassad or,	IIT Bombay	2000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2

Table B.4.6.3h: List of students completed internships with stipend during 2019-20

Internships with Stipend for 2018-19							
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Stipend per month**	**Relevance to POs/PSOs**
1.	15NM1A05A6	Shushma Sri	28-05-2018 to 13-07-2018	Internship	Getin Hours	5000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
2.	16NM1A0535	E. Deepika	10-03-2019 to	Internship on Technical	Entrée sphere,	10000	PO1, PO2, PO3, PO5,

			10-05-2019	Inter Mobile App Development	Hyderabad		PO11, PSO1, PSO2
3.	16NM1A0535	E. Deepika	18-05-2019 to 17-06-2019	Internship on Flutter App Development	Toise Tech., Bangalore	5000	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
4.	17NM1A0599	M. Deborah Zenifer	15-05-2019 to 30-06-2019	Internship	HMI Engineering Services Robo Coupler Solutions	1450	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
5.	17NM1A05A3	M. Uma Maheswari	15-05-2019 to 30-06-2019	Internship	HMI Engineering Services Robo Coupler Solutions	1450	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
6.	17NM1A05B8	P.Sushma	06-01-2019 to 13-07-2019	Internships	Web Development	1350	PO1, PO2, PO3, PO5, PO11, PSO1,PSO2

Table B.4.6.3i: List of students completed internships with stipend during 2018-19

International level CII Summit 2017-18						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Place**	**Awards/Rewards Relevance to POs/PSOs**
1.	15NM1A05B9	V.Suma	12-01-2019 & 13-01-2019	CII Summit	Bombay Stock Exchange Mumbai	P04, PO5, P09, PSO1, PSO2

Table B.4.6.3j: Students attended International level CII Summit in 2017-18

List of awards received in inter-institute events participated during the 2019-20							
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s)**	**Event Name**	**Institution Name**	**Awards**	**Relevance to POs/PSOs**
1.	18NM1A05B8	P. Sahithi	03-01-2020	Introduction of Computer Vision and CNNS	IIT, Madras	Merit certificate	PO4, PO5, PO9, PSO1, PSO2
2.	18NM1A0576	K.Hemalatha	07-09-2019 to 08-09-2019	Workshop on Data Science	IIT Hyderabad	Merit certificate	PO4, PO5, PO9, PSO1, PSO2

3.	17NM1A05C8	P. Mounika	20-12-2019 to 21-12-2019	Workshop on Web development.	Andhra University	Merit certificate	PO4, PO5, PO9, PSO1, PSO2
4.	17NM1A0568	K. Sahitya	23-12-2019	Hack AI on Health	Medi valley, World Incubation Hub Amtz Campus	4thPrize	PO4, PO5, PO9, PSO1, PSO2
5.	16NM1A05E8	G. Prashipta	Jun-19	Cyber security Internship	Tocmoc Solutions, Hyderabad	Certificate of Appreciation	PO4, PO5, PO9, PSO1, PSO2
6.	17NM1A0596	M.Annapurna	29-07-19	Google IT	VIIT, Visakhapatnam	1st Prize	PO4, PO5, PO9, PSO1, PSO2
7.	17NM1A05C8	P. Mounika	29-07-19	Google IT	VIIT, Visakhapatnam	2nd Prize	PO4, PO5, PO9, PSO1, PSO2
8.	17NM1A0589 17NM1A0564 17NM1A05A1 17NM1A0574	K. Hema Sai Harsitha M.S.Bhavana K. Thanuja	21-09-2019 to 23-09-2019	Idea Presentation	VIIT, Visakhapatnam	1st Prize	PO4, PO5, PO9, PSO1, PSO2
9.	18NM1A0558 18NM1A0521 18NM1A0551	K. Reshma Ch Agarwal Harshitha	21-09-2019 to 23-09-2019	Idea Presentation	VIIT, Visakhapatnam	2nd Prize	PO4, PO5, PO9, PSO1, PSO2
10.	18NM5A0517	S. Nirmala	15-02-2019	Tennikoit	VIIT, Visakhapatnam	2nd Prize	PO4, PO5, PO9, PSO1, PSO2
11.	18NM1A0551	G. Harshitha	09-02-2020	Throwball	VIIT, Visakhapatnam	Runner	PO4, PO5, PO9, PSO1, PSO2
12.	16NM1A05E8	G. Prashipta	19-06-2020	Coin Collection	Bharat Book Of World Records	Delhi	PO9
13.	16NM1A05E8	G. Prashipta	19-07-2020	Coin Collection	Andhra Book Of Records	Hyderabad	PO9
14.	16NM1A05E8	G. Prashipta	02-08-2020	Coin Collection	Asia book of records	Hyderabad	PO9

Table B.4.6.3k: List of awards received in inter-institute events participated during the 2019-20

Participation in inter-institute Co-curricular events by students in 2019-20						
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	18NM1A0579 18NM1A0580 18NM1A0582 18NM1A05B8	K.Dimpul Singh K. Dharani Sai Keerthi K. Manasa P. Sahithi	03-01-2020	Introduction of Computer Vision And CNNS	IIT, Madras	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	17NM1A05B6	Nupur Das	07-07-2019 to 07-12-2019	Internship on Data Science Using Python	IIT Bombay	PO1, PO2, PO5, PO11, PSO1, PSO2
3.	18NM1A0576 18NM1A05D5 18NM1A05D7	K. Hemalatha S.S.S.L. Monika G. Sarayu	07-09-2019 to 08-09-2019	Workshop on Data Science	IIT Hyderabad	PO1, PO2, PO3, PO5, PSO1, PSO2
4.	18NM1A0589 18NM1A0590 17NM1A0512 17NM1A0514 17NM1A0509	M.S.K. Janani M.H.S. Pushpa A. Deepika B.Ch. N.S. Sarada A. Sri Rekha	20-07-2019 to 21-07-2019	Workshop on Internet of Things	IIT Hyderabad	PO1, PO2, PO3, PO5, PSO1, PSO2
5.	17NM1A05B5	N. Sruthii	04-01-2020 to 04-03-2020	Internship on E- Cell Lucknow	IIM Lucknow	PO1, PO2, PO5, PO11, PSO1, PSO2
6.	17NM1A05D7 17NM1A05H1 17NM1A05H4	R. Keerthi V.D.L. Rajeswari V. Mounica	25-05-2019 to 15-06-2019 25-05-2019 to 25-06-2019 08-05-2019 to 02-06-2019	Internship on Cyber Security and Ethical Hacking	Toc moc solutions	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
7.	17NM1A05C7 17NM1A05E3	P. .S.J. Meghana Sai Rakshitha P.	13-05-2019 to 31-05-2019	Internship on Artificial Intelligence with Python &IBM Watson	Smart Bridge in Collaboration With IBM	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
8.	17NM1A0596	M. Annapurna	31-07-2019 to 31-12-2019	Internship on Android Development	Spark foundation	PO1, PO2, PO5, PO11, PSO1, PSO2
9.	17NM1A0569 17NM1A0574 17NM1A0589 17NM1A05C0	K. Sreeja K. Tanuja K. Sri P. Gayathri	10-05-2019 to 12-06-2019 15-05-2019	Internship on Artificial Intelligence	HMI Robo Coupler and Engineering services	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2

			to 31-05-2019			
10.	17NM1A0579	K. Jyoshna	20-05-2019 to 20-06-2019	Internship on App Development	HMI Robo coupler engineering services	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
11.	17NM1A0599 17NM1A05A3	M. Deborah Zenifer M Uma Maheswari	15-05-2019 to 15-06-2019	Internship on Data Science Using Python	HMI Engg Services Robo-Coupler Solutions	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
12.	17NM1A0509 17NM1A0512 17NM1A0529 17NM1A0530 17NM1A0535 17NM1A0537 17NM1A0540 17NM1A0543 17NM1A0549 17NM1A0553 17NM1A0555 17NM1A05C0 17NM1A05C2 17NM1A05C7 17NM1A05C8 17NM1A05C9 17NM1A05D0 17NM1A05D1 17NM1A05D4 17NM1A05E3 17NM1A05E4 17NM1A05E5 17NM1A05G0 17NM1A05G8 17NM1A05H3 17NM1A05H6 18NM1A0590 18NM1A0595	Sri Rekha Anne Ayithi Deepika Ch. Sai Likhita Ch. Alekhya Dadi Sowmya D.Vineetha Sri D. Joshitha G Nagamani G. Manasa Gompa Nikhila G Jhanavi Pamula Gayathri P. Lahari P. Sri J Meghana PillaMounika P Teja Sai Sree P Bhavya P Jahnavi PusapatiRevathi Sai Rakshitha P S Sri Varshini SanamRupa Sri SuradaHaritha V NavyaSree V Vijaya Lakshmi Y D N S.Bhanusri M. Hema Sai Pushpa MediBhargavi	22-12-2019 to 23-12-2019	Workshop on Mobile Application development	Andhra University	PO1, PO2, PO3, PO5, PSO1, PSO2
13.	17NM1A0512 17NM1A0529 17NM1A0535 17NM1A0543 17NM1A0553 17NM1A05C2 17NM1A05C7 17NM1A05C8 17NM1A05C9	AyithiDeepika Ch.SaiLikhita Dadi Sowmya G Nagamani Gompa Nikhila P. Lahari P. Sri J Meghana Pilla Mounika P Teja Sai Sree	20-12-2019 to 21-12-2019	Workshop on Web development	Andhra University	PO1, PO2, PO3, PO5, PSO1, PSO2

	17NM1A05E3 17NM1A05E4 17NM1A05E5 17NM1A05G0 17NM1A05G8 17NM1A05H3 17NM1A05H6	Sai Rakshitha P S Sri Varshini Sanam Rupa Sri SuradaHaritha V NavyaSree V Vijaya Lakshmi Y D N S.Bhanusri				
14.	17NM1A0535 17NM1A0543	DadiSowmya G Nagamani	28-09-2019 to 29-09-2019	Cyber Security And Ethical Hacking.	GITAM	PO1, PO2, PO3, PO5, PSO1, PSO2
15.	17NM1A0532	ChoppaNandin	07-02-2019 to 08-02-2019	Ethical Hacking and Cyber Security	ANITS	PO1, PO2, PO4, PO5, PO8, PO12, PSO1, PSO2
16.	17NM1A05E7	S Sravani	10-05-2019 to 10-06-2019	Internship on Python Programming	EngineeringGaints	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
17.	17NM1A05E8	S Sandhya rani	10-06-2019 to 10-07-2019	Internship-Mobile Application Development React Native	Engineers Hub	PO5, PO11, PSO1, PSO2
18.	17NM1A0581	Kola Lavanya	17-05-2019 to 06-06-2019	Internship Web Application Development	Atom Software Solutions	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
19.	17NM1A05C6 17NM1A05D4	P V Satya Likhitha PusapatiRevathi	15-11-2019 to 22-11-2019	Internship on Internet Of Things	Appleton Innovations	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
20.	17NM1A0594	Lanka Sruthi	20-12-2019 to Till date	Internship on Machine Learning	FLUENT GRID Ltd	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
21.	17NM1A05C2	P. Lahari	15-05-2019 to 12-06-2019	Internship on Power Utility - New Service Connection Module	Fluentgrid Ltd	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
22.	17NM1A0501	A.V.K. Pravallika	23-12-19	Workshop on Flutter Interact	Miracle Software Solutions	PO3, PO5, PO10, PSO1, PSO2
23.	17NM1A0591	K. Divya	15-05-2019 to 15-06-2019	Internship on Android Development	Robot coupler and HMI	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2

24.	16NM1A05C0	V.Pratyusha	Jan -Apr 2018	Problem solving through C	NPTEL, IIT Kharagpur	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.3l: Participation in inter-institute Co-curricular events by students in 2019-20

Participation in inter-institute extra circular events by students in 2019-20							
S. No	**Regd. No.**	**Student Name**	**Date(s) of the competition**	**Name of the competition**	**Position held /participation**	**Name of the Institute**	**Relevance to POs/PSOs**
1.	17NM1A05C1	K. D. Sai Keerthi	10-01-2020	Athletics 100M	Participation	VIIT, Visakha patnam	PO4, PO5, PO9, PSO1, PSO2
2.	17NM1A0501	A.V.K. Pravallika	12-11-2019	Badminton	Participation	VIIT, Visakha patnam	PO4, PO5, PO9, PSO1, PSO2
3.	17NM1A0509	Sri Rekha Anne	06-01-2020	Badminton	Participation	VIIT, Visakha patnam	PO4, PO5, PO9, PSO1, PSO2
4.	17NM1A0534	D. Charanya	06-01-2020	Throw Ball	Participation	VIIT, Visakha patnam	PO4, PO5, PO9, PSO1, PSO2
5.	18NM1A0579	K D Singh	10-01-2020	Athletics 100M	Participation	VIIT, Visakha patnam	PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.3m: Participation in inter-institute extra circular events by students in 2019-20

List of awards received in inter-institute events participated during the 2018-19							
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s)**	**Event Name**	**Institution Name**	**Awards/ Rewards**	**Relevance to POs/ PSOs**
1.	17NM1A0512	B Charishma	02-03-2019 to 03-03-2019	Workshop on IoT	IIT Hyderabad	Merit Certificate	PO4, PO5, PO9, PSO1, PSO2
2.	16NM1A05E6	G.Hyndavi	20-05-2019 to 20-06-2019	Internship On Cyber Security And Ethical Hacking	Tocmoc Solutions	Certificate of Appreciation	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2

3.	17NM1A0509	A Sri Rekha	17-09-2018 to 18-09-2018	Cyber Security and Malware Analysis by Indian Servers	JNTU VZM	Merit Certificate	PO4, PO5, PO9, PSO1, PSO2
4.	16NM1A0586 16NM1A0535 16NM1A0512 16NM1A05H3 16NM1A0504	HarshithaP DeepikaEjji B Niharika SathvikaR A S Vyshnavi	26-08-2018	Pixel Run Appathon	NASSACOMM 10000, Symbiosis Technologies	2nd Prize	PO4, PO5, PO9, PSO1, PSO2
5.	16NM1A0522	B. Bhanusree	26-09-2018 to 27-09-2018	Coding Competition	VIIT	2nd Prize	PO4, PO5, PO9, PSO1, PSO2
6.	16NM1A0530	D.vandana Sri	06-12-2018 to 08-12-2018	Hackarena	VIIT	1st Prize	PO4, PO5, PO9, PSO1, PSO2
7.	16NM1A0593 16NM1A0594 16NM1A0588	P. Praveena P. Manju P. Vasudha	14-09-2018 to 15-09-2018	Poster Presentation	VIIT	2nd Prize	PO4, PO5, PO9 PSO1, PSO2
8.	17NM1A0589 17NM1A0564 17NM1A05A1	K Hema Sri J. Harshitha M. Bhavana	14-09-2018 to 15-09-2018	Poster Presentation	VIIT	1st Prize	PO4, PO5, PO9, PSO1, PSO2
9.	16NM1A0535 16NM1A0504 16NM1A0530 16NM1A0512 16NM1A05H3 16NM1A0586	E. Deepika A. Vaishnavi D. V. Sri B. Niharika G. Satwika P. Harsitha	14-09-2018 to 15-09-2018	Live Models-Parna App	VIIT	3rd Prize	PO4, PO5, PO9, PSO1, PSO2
10.	16NM1A0569	Sindhu Mallidi	15-07-2017	VISTA 2K18	VIIT	Academic Excellence Award	PO1, PO2, PSO1, PSO2
11.	16NM1A0537	G.K. Sowmya	11-08-2018 to 16-08-2018	Workshop on Android	VIEW	Merit Certificate	PO3, PO5, PO10, PSO1, PSO2

Table B.4.6.3n: List of awards received in inter-institute events participated during the 2018-19

Participation in inter-institute co-circular events by students in 2018-19						
S. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	17NM1A0509 17NM1A0512 17NM1A0514 17NM1A0519 17NM1A0529 17NM1A0550	A. Deepika B. Charishma N. S. Sarada B. Sirisha Ch.S. Likhita G. Rani	02-03-2019 to 03-03-2019	Workshop on IoT	IIT Hyderabad.	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	16NM1A0535	E. Deepika	10-03-2019 to 10-05-2019	Internship on Technical Inter Mobile App Development	Entree sphere, Hyderabad	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
3.	16NM1A0564 16NM1A0566 16NM1A0568 16NM1A0569 16NM1A0570 16NM1A0571 16NM1A0574 16NM1A0577 16NM1A0578 16NM1A0581 16NM1A0583 16NM1A0584 16NM1A0586 16NM1A0587 16NM1A0588 16NM1A0590 16NM1A0593 16NM1A0594 16NM1A0595 16NM1A0596 16NM1A0597 16NM1A0599 16NM1A05A7 16NM1A05A9 16NM1A05B4 16NM1A05B5 16NM1A05B8 16NM1A05C0 16NM1A05C2 16NM1A05C4 16NM1A05C7 16NM1A05C9 16NM1A05E3 16NM1A05E7 16NM1A05E8 16NM1A05E9 17NM1A0544 17NM1A0546 17NM1A0552 17NM1A0553 16NM1A0564	K. Sowjanya L. Anusha M. Amulya M. Sindhu S. Manasa MVS Bhavani M. Samyuktha M. Sailaja M. P. Jyothsna N. Sriranjini P. Anusha P. Jyothi Priya P. Harshitha P. Yamini P. Vasudha P. Lavanya P. Praveena P. Manju P. GVarshini P. Sowmya P. Ankitha R. Anuradha S. Sravya T. Jaya T. Sarika V. lakshmi V. Pratyusha Y.P. Lakshmi Y. M. Sravya A. Deepika A.V. Sree D. J. Reddy G. Mounika G. Prashipta G. Kusuma G.P S Lakshmi G. Tejaswini G. S. lakshmi G. Sirisha K. Nikhila S. Sowjanya	24-07-2018	Certification on Cyber Security	CISCO Networking Academy, Hyderabad	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2

4.	16NM1A05C7 16NM1A05C9 16NM1A05E6 16NM1A05F5 16NM1A05G1 16NM1A05G3 17NM51A0507	A. D. R. Devi A. VindyaSree G. Hyndavi K. R Deepika K. Katyayini K. DivyaSree M. Kasturi	20-05-2019 to 20-06-2019	Internship On Cyber Security And Ethical Hacking	Tocmoc Solutions	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
5.	17NM1A05E2	R.Y. Varma	13-05-2019 to 07-06-2019	Machine learning using python	JNTU Hyderabad	PO1, PO2, PO3, PO5, PSO1, PSO2
6.	17NM1A0509 17NM1A0531	A. SriRekha Ch. Madhulika	17-09-2018 to 18-09-2018	Cyber Security and Malware Analysis by Indian Servers.	JNTU VZM	PO1, PO2, PO3, PO5, PSO1, PSO2
7.	16NM1A05C8 16NM1A05E5 16NM1A05E8 16NM1A05F2 16NM1A05G0 16NM1A05G5	A. Anusha G. Nithisha G. Prashipta J. Deekshitha K. Sri Harsha M. Nikitha	25-02-2019 to 26-02-2019	Data Science Workshop	JNTU VZM	PO1, PO2, PO3, PO5, PSO1, PSO2
8.	16NM1A0586 16NM1A0535 16NM1A0512 16NM1A05H3 16NM1A0504	P. Harshitha E. Deepika B. Niharika R. Sathvika A. S. Vyshnavi	26-08-2018	PIXEL RUN APPATHON	NASSACOMM 10000, Symbiosis Technologies	PO4, PO5, PO9, PSO1, PSO2
9.	16NM1A05C7 16NM1A05C9 16NM1A05F7 17NM5A0507	A. D. R. Devi A.V. Sree K. A. Reddy M. Kasturi	16-12-18	Digi Idols	Andhra University	PO1, PO2, PO3, PO5, PSO1, PSO2
10.	16NM1A05H3	R. Sathvika	20-12-2018 to 21-12-2018	Web Application Development	Andhra University	PO1, PO2, PO3, PO5, PSO1, PSO2
11.	17NM1A05C1	P. Sai Keerthi	15-06-2019 to 21-06-2019	Cyber security and ethical hacking	Andhra university	PO1, PO2, PO3, PO5, PSO1, PSO2
12.	16NM1A05F9 16NM1A05G9 16NM1A05H2 17NM1A0503 17NM1A0515 17NM1A0532 17NM1A0551	Ch. Kirthi P. Harshika S. Divya A. Lakshmi B. Harshini Ch. Nandini G. A. Bhavani	07-02-2019 to 08-02-2019	Cyber Security and Ethical Hacking	ANITS	PO1, PO2, PO3, PO5, PSO1, PSO2
13.	16NM1A05C2	Y. PLakshmi	10-05-2018 to 30-05-2018	Certification on IoT	COURSERA	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
14.	17NM1A0521	B. Utteja	01-06-2019 to 13-07-2019	Data Science	Internshala	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
15.	16NM1A0576 16NM1A0589 16NM1A0591 16NM1A0595	M. Pravalika P. Vaibhavi P. Manasa P. GVarshini	January to April 2019	Programming in Java	NPTEL IIT Kharagpur	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
16.	16NM1A0586	P. Harshitha	February	Programming	NPTEL	PO1, PO2,

			to March 2019	using Python	IIT Madras	PO3, PO4, PO5, PO9, PSO1, PSO2
17.	16NM1A05C0	V. Pratyusha	January to April 2019	Discrete Mathematics	NPTEL IIT Ropar	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
18.	17NM1A0545 17NM1A0546 17NM1A0550 17NM1A0551 17NM1A0553 17NM1A0554 17NM1A0555 17NM1A0562	G. Vathsalya G. Tejaswini G. Rani G. A. Bhavani G. Nikhila G. Sravani G. Jhanavi G. Raji	01-07-2019 to 01-09-2019	DBMS	NPTEL IIT Kharagpur	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
19.	17NM1A0555	G. Jhanavi	01-07-2019 to 02-09-2019	Programming in Java	NPTEL IIT Kharagpur	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
20.	16NM1A05A0	R. Sai Priya	01-05-2019 to 12-06-2019	Web Development	Solo Learn Certification	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
21.	17NM1A0546	G. Tejaswini	30-07-19	JAVA	Solo Learn Certification	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
22.	16NM1A0595	P.G. Varshini	Aug-18	ANDROID	UDEMY	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
23.	17NM1A0530	Ch. Alekhya	01-06-2019 to 31-06-2019	Cyber Security	Verzeo Bangalore	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
24.	16NM1A0589 16NM1A05C2 16NM1A05C8 16NM1A05H3	P. V. Vaibhavi Y.P. Lakshmi A. Anusha R. Sathvika	19-01-19	Developing Serverless Applications	Symbiosis Technologies	PO1, PO2, PO3, PO5, PSO1, PSO2
25.	17NM1A0502 17NM1A0503	A. S.Santhoshi A. Lakshmi	23-12-19	Seminar on Flutter Interact	Miracle software solutions	PO3, PO5, PO10 PSO1, PSO2
26.	16NM1A0597 16NM1A0598	P. Ankitha P. Anusha	28-12-2018 to 29-12-2018	APP Development in Java	WISTM	PO1, PO2, PO3, PO5, PSO1, PSO2
27.	17NM1A05C2	P. Lahari	17-09-2018 to 18-09-2018	Cyber Security & Malware Analysis	CITAM	PO1, PO2, PO3, PO5, PSO1, PSO2
28.	16NM1A0586 16NM1A0597 16NM1A05A5 16NM1A05C1 17NM1A0501 17NM1A0502	P. Harshitha P. Ankitha S. Kavitha V.Keerthi A. Pravallika A. S.Santhoshi	06-12-2018 to 08-12-2018	AI in Soft Computing	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2

	17NM1A0503 17NM1A0504 17NM1A0510 17NM1A0534 17NM1A0535 17NM1A0545 17NM1A0554 17NM1A0562 16NM1A0586	A. Lakshmi A. Manasa A. S. Geetha D. Charanya D. Sowmya G. Vathsalya G. Sravani R. Niharika P. Harshitha				
29.	16NM1A05F1 16NM1A05G9 16NM1A05H2 16NM1A0505 17NM1A0513 17NM1A0522 17NM1A0529 17NM1A0534 17NM1A0559 17NM1A05C7 17NM1A05D2 17NM1A05D4 17NM1A05D8 17NM1A05E1 17NM1A05E3 17NM1A05E4 17NM1A05E7 17NM1A05E8 17NM1A05G0 17NM1A05G5 17NM1A05H3 17NM1A05H6 18NM5A0513 18NM5A0519	G. Yasaswini P. Harshika S. Divya A. S. Sri B. Divya B. S. SManasa Ch. S. Likhita D. Charanya JManasa P. S. Meghana P.K. Priya P. Revathi R. Anusha R. Tanuja P. S. Rakshitha S. Sri Varshini S. Sravani S. Sandhyarani S. Haritha T. Poojitha V.V. Lakshmi Y. Bhanusri N.K. Veni T.R. Sravani	15-02-2019 to 16-02-2019	4G/5G LTE	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2
30.	16NM1A0501 16NM1A0504 16NM1A0517 16NM1A0545 16NM1A0562 16NM1A0525 16NM1A0557 16NM1A0550 16NM1A0559 16NM1A0563 16NM1A0535	A. Unnisa A.S Vaishnavi B.Y. Shireesha G. Devi K.SL.Prasanna CH. Deekshita K. Amrutha J. Poornima K. SaiSadhana K. Bhavana E. Deepika	15-09-2018	Devils Hand	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2
31.	16NM1A0503 16NM1A0510 16NM1A0525 16NM1A0538 16NM1A0542 16NM1A0543 16NM1A0545 16NM1A0562 16NM1A0558 16NM1A0553 16NM1A0543 16NM1A0563	A. Soundarya A. Lavanya CH. Deekshita G. SanthiSree G. Priyanka G. Mounika G. Devi K.SL.Prasanna K. Santhoshi K. S Praneetha G. Mounika K. Bhavana	14-09-2018	Burst the bug	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2

	16NM1A0564 16NM1A0535	KSS Sowjanya E. Deepika				
32.	16NM1A0510 16NM1A0542 16NM1A0545 16NM1A0562 16NM1A0535	A. Lavanya G. Priyanka G. Devi K.SL.Prasanna E. Deepika	15-09-2018	Code Wreck 2.0	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2
33.	16NM1A0525	CH. Deekshita	14-09-2018	Technical Quiz	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2
34.	16NM1A0535	E. Deepika	15-09-2018	Live model	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2
35.	16NM1A0535	E. Deepika	14-09-2018	paper presentation	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2
36.	16NM1A0544	G.N.S. Lalitya	14-09-2018	Debugging	VIIT, Visakhapatnam	PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.3o: Participation in inter-institute co-circular events by students in 2018-19

Participation in inter-institute extra circular events by students in 2018-19							
Sl. No.	**Regd. No**	**Name pf the Student**	**Date(s) of the competition**	**Name of the competition**	**Position held /participation**	**Name of the Institute**	**Relevance to POs/ PSOs**
1.	17NM1A0514	B.Ch. Sarada	15-02-2018 to 17-02-2018	Running Badminton	participated	VIIT, Visakhapatnam	PO9, PSO1
2.	17NM1A0529	Ch. S. Likhita	15-02-2018 to 17-02-2018	Running Badminton	participated	VIIT, Visakhapatnam	PO9, PSO1
3.	17NM1A05D2	P. K. Priya	14-09-2018 to 15-09-2018	Scrap and Crap (VISTA-2K18)	2nd prize	VIIT, Visakhapatnam	PO9, PSO1
4.	17NM1A05H3	V.V.Lakshmi	06-01-2018 to 07-01-2018	Badminton	participated	VIIT, Visakhapatnam	PO9, PSO1
5.	17NM1A0550	G. Rani	01-03-2018	Athletics - Running (400M)	participated	VIIT, Visakhapatnam	PO9, PSO1
6.	15NM1A05D0 15NM1A0563 17NM1A05D0	E. Pravallika L. Anuradha P. Bhavya	2018-2019	Throw Ball	Winners	National Youth Festival,VIIT (Yuvtarang),	PO9, PSO1
7.	15NM1A05D4 15NM1A0509 15NM1A0522	S. Tulasi K. Kavaya Kamalaeswari	2018-2019	Kho-Kho	Winners	National Youth Festival, VIIT, (Yuvtarang),	PO9, PSO1

8.	16NM1A0545	G. Devi	2018-2019	Tenni-Koit	Winners	National Youth Festival , VIIT, (Yuvtarang),	PO9, PSO1
9.	16NM1A0543	G. Mounika	2018-2019	Chess	Winners	National Youth Festival VIIT, (Yuvtarang),	PO9, PSO1

Table B.4.6.3p: Participation in inter-institute extra circular events by students in 2018-19

List of awards received in inter-institute events participated during the 2017-18							
Sl. No	**Regd. No.**	**Name of the Student**	**Date(s)**	**Event Name**	**Institution Name**	**Awards**	**Relevance to POs/PSOs**
1.	16NM1A05H3	R. Sathvika	23-5-2018 to 30-5-2018	Workshop on Machine Learning	Bits Pilani, Hyderabad	Merit Certificate	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	16NM1A0524	Ch. S. Harathi	17-02-2018 to 18-02-2018	Artificial Intelligence	JNTU Kakinada	Merit Certificate	PO1, PO2, PO3, PO5, PSO1, PSO2
3.	15NM1A05F0 15NM1A05G3 15NM1A05G9	M. Srivalli G. Vysali D. Sirisha	17-02-18	Innovative ideas	JNTUK	1st Prize	PO1, PO2, PO3, PO10, PSO1, PSO2
4.	15NM1A05C8 15NM1A05F4	D. Geethika O. M. Keerthi	17-02-18	Innovative ideas	JNTUK	2nd Prize	PO1, PO2, PO3, PO10, PSO1, PSO2
5.	15NM1A05A6 15NM1A05A7	S Shusmasri T Sri Puja	14-09-2017 to 15-09-2017	Smart Ideas-acknowledgement of email	VIIT, Visakhapatnam	2nd Prize	PO1, PO2, PO3, PO10, PSO1, PSO2
6.	15NM1A0550	D. S. M. Charishma	14-09-2017 to 15-09-2017	Live Model-A practical implementation of wireless sensor network based on smart phone safety system	VIIT, Visakhapatnam	1st Prize	PO1, PO2, PO3, PO5, PO10, PSO1, PSO2
7.	15NM1A0567 15NM1A05B2 15NM1A05A6 15NM1A0565	M. Kavitha P. Sai Renuka S. Shushma S M Navya	14-09-2017 to 15-09-2017	Live Model-A IR remote controlled Home Automation using Aurdino	VIIT, Visakhapatnam	2nd Prize	PO1, PO2, PO3, PO5, PO10, PSO1, PSO2
8.	16NM1A0519	B. SuryaTeja	21-07-2017 to 23-07-2017	Workshop on Boot Strap	VIEW	Merit certificate	PO1, PO2, PO3, PO5, PSO1, PSO2
9.	16NM1A0569	M. Sindhu	07-01-2017	Tug of War	VIIT,	1st prize	PO1, PO2,

			to 08-01-2017		Visakha patnam		PO3, PSO1, PSO2
10.	16NM1A0569	M. Sindhu	09-07-2017	VISTA 2K17	VIIT, Visakha patnam	Academic excellence award	PO1, PO2, PSO1 ,PSO2
11.	15NM1A0514 15NM1A0539	B. Mounika J. Sai Sirisha	12-03-2018 to 14-03-2018	Electrothon 2K18	KLU, Vijayawada	Zonal level 1st prize	P04, PO5, P09, PSO1, PSO2
12.	15NM1A05B9	V. Suma	24-02-2018 to 26-01-2018	CII Summit	CII Summit in BSE, Mumbai	Participation	PO9, PSO1, PSO2

Table B.4.6.3q: List of awards received in inter-institute events participated during the 2017-18

Participation in inter-institute co-circular events by students in 2017-18						
S. No	**Regd. No.**	**Name of the Student**	**Date(s) of event**	**Event Name**	**Institution Name**	**Relevance to POs/PSOs**
1.	16NM1A0501 16NM1A0526 16NM1A0557 16NM1A0564 16NM1A0567 16NM1A0576 16NM1A0579 16NM1A0592 16NM1A0593 16NM1A0595 16NM1A05A3 16NM1A05B3 16NM1A05C5 16NM1A05C6	A. Unnisa Ch. Alekya K. Amrutha K. Sowjanya L. Vineetha M. Pravalika N. Bhagya P. Pooja P. Praveena P. GunaVarshini S. Snigtha P. Triveni Y. Haritha Y. Vasantha	17-02-2018 to 18-02-2018	Artificial Intelligence	JNTU Kakinada	PO1, PO2, PO3, PO5, PSO1, PSO2
2.	16NM1A0564 16NM1A0578 16NM1A0579 16NM1A0581 16NM1A0587 16NM1A0595 16NM1A0597 16NM1A0598 16NM1A05A5 16NM1A05B0 16NM1A05B5 16NM1A05B6	K. S SSowjanya M. P.Jyothsna N. Bhagya N. Sriranjini P. Yamini P. GunaVarshini P. Ankitha P. Anusha S. Kavitha S. Likitha T. Sarika V. S. Deepika	14-09-2017 to 15-09-2017	Internet of Things	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2

	16NM1A05B9 16NM1A05C1 16NM1A05C5 16NM1A05D3 16NM1A0580	V. Joshna V. Keerthi Y. Haritha V. Bhavya Sri B. Maheswari				
3.	16NM1A0582 16NM1A0583	N. Mary Vincent P. Anusha	14-09-2017 to 15-09-2017	APP Development in Java	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2
4.	16NM1A0582	N. Mary Vincent	06-12-2018 to 08-12-2018	AI in Soft Computing	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2
5.	16NM1A05A3	S. Snigtha	02-07-2017	RC Aircraft Workshop	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2
6.	16NM1A05D1	B. Shivani	03-07-2017	C Programming	Port Blair	PO1, PO2, PO3, PO5, PSO1, PSO2
7.	16NM1A05F2 16NM1A05G0 16NM1A05G5	J. Deekshitha K. Sri Harsha M. Nikitha	5-3-2018 to 6-3-2018	Cyber Security and Ethical Hacking	JNTU VZM	PO1, PO2, PO3, PO5, PSO1, PSO2
8.	16NM1A05F6	K. KavyaSree	28-01-2018	Android	Coding Sastra	PO1, PO2, PO3, PO5, PSO1, PSO2
9.	16NM1A05H7 17NM5A0507	M. Akanksha M. Kasturi	14-9-2017 to 15-9-2017	Smart Apthon	VIIT, Visakhapatnam	PO1, PO2, PO3, PO5, PSO1, PSO2
10.	16NM1A05H8 16NM1A05H9	V. H Chowdary V. S. Priyanka	12-06-2018	Digital Marketing Workshop	Andhra University	PO1, PO2, PO3, PO5, PSO1, PSO2
11.	17NM1A05C2	P. Lahari	24-02-2018 to 26-01-2018	CII Partnership Summit 2018	APIIC	PO1, PO2, PO3, PO5, PSO1, PSO2
12.	17NM1A05G9	S. Vasireddy	01-06-2018 to 21-06-2018	Mobile Application Development	Bits Pilani Hyderabad campus	PO1, PO2, PO3, PO5, PSO1, PSO2
13.	16NM1A0522	B. Bhanusree	14-09-2017 to 15-09-2017	Paper Presentation	VIIT, Visakhapatnam	PO1, PO2, PO9, P10, PSO1
14.	18NM5A0507	K. Kiranmai	01-05-2017 to 28-05-2017	Internship on C#.NET	Sims E-Tech	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2
15.	18NM5A0508	K. Pavani	29-05-2017 to	Internship on Web	Silicon info systems	PO1, PO2, PO5, PO9,

			29-07-2017	designing		PO12, PSO1, PSO2
16.	17NM1A0563	J. Poornima	02-01-2018 to 04-01-2018	Workshop on Block chain	GMRIT, Rajam	PO1, PO2, PO3, PO5, PSO1, PSO2
17.	16NM1A05A9 16NM1A05C2 16NM1A05E8	S. Sravya Y. Prasanna G. Prashipta	JAN -APR 2018	Problem solving through C	NPTEL IIT Kharagpur	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2
18.	16NM1A05C3 16NM1A05E8 16NM1A05A9 16NM1A05A5 16NM1A05A0	Y. Sriya G. Prashipta S. Sravya S. Kavitha R. Sai Priya	10-05-2018 to 30-05-2018	Internet of Things	COURSERA	PO1, PO2, PO3, PO4, PO5, PO9, PSO1, PSO2

Table B.4.6.3r: **Participation in inter-institute co-circular events by students in 2017-18**

Participation in inter-institute extra circular events by students in 2017-18							
Sl. No	**Regd. No.**	**Student Name**	**Date(s) of the competition**	**Name of the competition**	**Position held /participation**	**Name of the Institute**	**Relevance to POs/PSOs**
1.	15NM1A05D4 15NM1A0509 15NM1A0522 15NM1A05B5	1.S.Tulasi 2.K.Kavaya 3.D.Kamalaeswari 4.T.Anusha	02-03-2018 to 04-03-2018	Kho-Kho	1st position	Aditya Engineering College,Suramapalem, Kakinada	PO9, PSO1
2.	15NM1A05D0 15NM1A0563 17NM1A05D0	1.E.Pravallika 2.L.Anuradha 3.P.Bhavya	02-03-2018 to 04-03-2018	Throw Ball	3rd position	Aditya Engineering College Suramapalem, Kakinada	PO9, PSO1
3.	15NM1A05D0 15NM1A0563 17NM1A05D0	1.E.Pravallika 2.L.Anuradha 3.P.Bhavya	07-01-2018 to 08-01-2018	Throw Ball	Runners	Yuvtarang 2018, Vignan Group	PO9, PSO1
4.	16NM1A0526 16NM1A0535 16NM1A0560 16NM1A0562 16NM1A0563	Ch.Alekya E.Deepika K.Chaturya K.S.L.Prasanna K.Bhavana	14-09-2017 to 15-09-2017	Best from Waste	Participation	VISTA Vignan Group	PO9, PSO1
5.	17NM1A05E3	C.SaiRakshitha	01-09-2017	Mini Millitia	participation	VIIT, Visakhapatnam	PO9, PSO1
6.	16NM1A05E8	G.Prashipta	01-09-2017	Mini Millitia	participation	VIIT, Visakhapatnam	PO9, PSO1
7.	16NM1A05G1	K.Katyayini	01-09-2017	Mini Millitia	participation	VIIT, Visakhapatnam	PO9, PSO1

8.	16NM1A05E5	G.Nithisha	01-09-2017	Treasure Hunt	participation	VIIT, Visakhapatnam	PO9, PSO1
9.	16NM1A05E8	G. Prashipta	Aug-2018	Champions Book of World Records,	Coin collection	Hyderabad	PO9, PSO1
10.	16NM1A05E8	G. Prashipta	Oct-2018	Shining Star award given by Sanghamithra Cultural &Social Service Organisation,	Coin collection	Delhi	PO9, PSO1

Table B.4.6.3s: Participation in inter-institute extra circular events by students in 2017-18

CRITERION 5	Faculty Information and Contributions	200

5.1	Student-Faculty Ratio	20M
5.2	Faculty Cadre Proportion	25M
5.3	Faculty Qualification	25M
5.4	Faculty Retention	25M
5.5	Innovations by the Faculty in Teaching and Learning	20M
5.6	Faculty as participants in Faculty development/training activities/STTPs	15M
5.7	Research and Development	30M
5.8	Faculty Performance Appraisal and Development System (FPADS)	30M
5.9	Visiting/Adjunct/Emeritus Faculty etc.	10M

Criterion 5	Faculty Information and Contributions	200M

5. FACULTY INFORMATION AND CONTRIBUTIONS (200)

Consolidated Faculty Information for assessment years CAY (2019-20), CAYm1 (2018-19) and CAYm2 (2017-18)

S. No	Name of Faculty Member	Qualification			Association with the Institution	Designation	Date on which designated as Professor or Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated(Y/N) Date of Leaving In case currently associated is (No)	Nature of Association (Regular/Contract)
		Degree (Highest degree)	University	Year of attaining higher Qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving the Ph.D during the Assessment Years		
1	Dr. M. Ben Swaroop	Ph.D	AU	2011	Y	Professor	16.06.2012	16.06.2012	CSE	CSE	0	NA	No	No 10.05.2019	Regular
2	Dr. T.V. Madhusudhan Rao	Ph.D	JNTUK	2015	Y	Professor	10.06.2017	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
3	Dr. B. Prasad	Ph.D	AU	2015	Y	Professor	15.05.2017	09.11.2002	CSE	CSE	0	NA	No	Yes	Regular
4	Dr. K. Vijaya Kumar	Ph.D	KU	2017	Y	Assoc. Prof	29.09.2017	20.05.2013	CSE	CSE	10	NA	No	Yes	Regular
5	Dr. N. Thirupathi Rao	Ph.D	AU	2015	Y	Assoc. Prof	24.04.2017	04.01.2016	CSE	CSE	0	NA	No	Yes	Regular
6	Dr. J.Anitha	Ph.D	AU	2016	N	Assoc Prof	21.03.2016	18.11.2015	CSE	CSE		NA	No	No 01.07.2019	Regular
7	Dr. P. Vijaya Bharati	Ph.D	GITAM	2020	Y	Assoc. Prof	10.02.2020	14.09.2009	CSE	CSE	3	NA	Yes	Yes	Regular
8	Dr. G. Neelima	Ph.D	GITAM	2019	Y	Assoc. Prof	13.12.2019	02.11.2018	CSE	CSE	0	NA	No	Yes	Regular

9	Mr. B. Venkatesh	M.Tech	JNTUK	2013	Y	Asst Prof	NA	24.08.2015	CSE	ECM		NA	No	Yes	Regular
10	Mr. Ch. Sudhakar	M.Tech	JNTUK	2015	Y	Asst. Prof	NA	13.11.2015	CSE	CSE	0	NA	No	Yes	Regular
11	Mr. Mohan Mahanty	M.Tech	JNTUK	2015	Y	Asst. Prof	NA	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
12	Mr. D. Chandra mouli	M.Tech	JNTUK	2013	Y	Asst. Prof	NA	12.06.2017	CSE	CSE	0	NA	No	Yes	Regular
13	Mrs. M. Mamatha Laxmi	M. Tech	JNTUH	2010	Y	Asst. Prof	NA	21.08.2014	CSE	CSE	4	NA	No	Yes	Regular
14	Mrs. D. Kamal Kumari	M. Tech	AU	2011	N	Asst. Prof	NA	03.06.2013	CSE	CST	0	NA	No	No 08.05.2020	Regular
15	Mr. I. Raju	M. Tech	AU	2015	Y	Asst. Prof	NA	31.03.2016	CSE	CST	4	NA	No	Yes	Regular
16	Ms. Y. VineelaSravya	M. Tech	GITAM	2015	Y	Asst. Prof	NA	11.04.2016	CSE	SE	4	NA	No	Yes	Regular
17	Mrs. R. Pravallika	M. Tech	JNTUK	2016	Y	Asst. Prof	NA	31.05.2016	CSE	CSE	4	NA	No	Yes	Regular
18	Mrs. G. Sandhya	M. Tech	AU	2016	Y	Asst. Prof	NA	20.03.2017	CSE	CST	4	NA	No	Yes	Regular
19	Mrs. G. Pavani latha	M. Tech	AU	2016	Y	Asst. Prof	NA	03.04.2017	CSE	CST	2	NA	No	Yes	Regular
20	Mr. T. Hari babu	M. Tech	AU	2015	N	Asst. Prof	NA	3.04.2017	CSE	CST	0	NA	No	No 01.05.2020	Regular
21	Mr. P. Praveen Kumar	M.Tech	AU	2015	N	Asst. Prof	NA	21.04.2017	CSE	CST	0	NA	No	No 12.05.2020	Regular
22	Mrs. B. Madhavi	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	08.06.2017	CSE	CSE	0	NA	No	Yes	Regular
23	Mr. S. Venkatesh	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
24	Mr. S. Raju Chintalapati	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
25	Mr. M. Krishnam Raju	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	20.06.2017	CSE	CSE	0	NA	No	Yes	Regular
26	Mrs. N. Sowjanya Kumari	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	25.05.2018	CSE	CSE	1	NA	No	Yes	Regular
27	Mr. D. Rajendra Dev	M.Tech	GITAM	2014	Y	Asst. Prof	NA	06.06.2018	CSE	SE	8	NA	No	Yes	Regular

28	Ms. Rita Roy	M.Tech	GITAM	2014	Y	Asst. Prof	NA	06.06.2018	CSE	CST	8	NA	No	Yes	Regular
29	Mr. R. Ravi	M.Tech	AU	2014	Y	Asst. Prof	NA	30.06.2018	CSE	CST	4	NA	No	Yes	Regular
30	Mrs. K. Deepthi Krishna	M.Tech	AU	2017	N	Asst. Prof	NA	03.05.2019	CSE	CST	2	NA	No	No 08.05.2020	Regular
31	Mrs. J. HimaBindhu	M.Tech	JNTUK	2015	Y	Asst. Prof	NA	12.06.2019	CSE	CSE	3	NA	No	Yes	Regular
32	Mrs. Sheik Rahamuinissa	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	15.06.2019	CSE	CSE	2	NA	No	Yes	Regular
33	Ms. B Haritha Laxmi	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	20.06.2019	CSE	CSE	2	NA	No	Yes	Regular
34	Mr. A. Maheswara Rao	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	21.06.2019	CSE	CSE	2	NA	No	Yes	Regular
35	Mr. S. Ram Prasad Reddy	M Tech	AU	2008	N	Asst. Prof	NA	28.04.2011	CSE	CSE	1	NA	No	No 12.02.2020	Regular
36	Mr. L. Bhupathi Rao	M.Tech	AU	2010	N	Asst Prof	NA	01.11.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular
37	Mr. B. A. Ganesh	M.Tech	JNTUK	2011	N	Asst Prof	NA	15.11.2011	CSE	CSE	0	NA	No	No 14.10.2019	Regular
38	Mr. A.N. Suresh	M.Tech	AU	2011	N	Asst Prof	NA	01.12.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular
39	Mr. K. Madhuri	M.Tech	JNTUK	2012	N	Asst Prof	NA	03.06.2013	CSE	CSE	0	NA	No	No 15.06.2019	Regular
40	Mrs. S. Chandini	M. Tech	CU	2015	N	Asst Prof	NA	21.04.2015	CSE	CSE	0	NA	No	No 05.06.2019	Regular
41	Ms. T. Padmavathy	M. Tech	JNTUK	2015	N	Asst Prof	NA	09.12.2015	CSE	CSE	0	NA	No	No 14.10.2019	Regular
42	Mr.Ch. V. Bhikshapathi	M Tech	AU	2017	N	Asst Prof	NA	10.04.2017	CSE	CST	0	NA	No	No 24.06.2019	Regular
43	Mrs. D. Savitri	M.S	BITS	2011	N	Asst Prof	NA	11.07.2016	CSE	SE	0	NA	No	No 25.07.2019	Regular
44	Mr. N. K. Santosh	M.Tech	GITAM	2010	N	Asst Prof	NA	14.06.2010	CSE	CSE	0	NA	No	No 26.12.2018	Regular
45	Mrs. K. Narsamma	M.Tech	JNTUK	2012	N	Asst. Prof	NA	01.11.2012	CSE	CSE	0	NA	No	No 02.07.2018	Regular
46	Ms. D. Chandrika	M.Tech	AU	2014	N	Asst Prof	NA	22.01.2015	CSE	CST	0	NA	No	No 28.07.2018	Regular

47	Mr. V. Uma Shankar Rao	M.Tech	JNTUK	2015	N	Asst Prof	NA	23.11.2015	CSE	CSE	0	NA	No	No 05.07.2018	Regular
48	Mrs. J. Aruna Devi	M.Tech	JNTUK	2011	N	Asst Prof	NA	16.03.2017	CSE	CSE	0	NA	No	No 20.08.2018	Regular
49	Mr. K. Mariya babu	M Tech	AU	2016	N	Asst Prof	NA	07.04.2017	CSE	CST	0	NA	No	No 15.06.2018	Regular
50	Mrs. Ch. Ramya	M.Tech	JNTUK	2011	N	Asst Prof	NA	15.07.2017	CSE	CSE	0	NA	No	No 18.09.2018	Regular
51	Mr. D. Lova Raju	M.Tech	AU	2016	N	Asst Prof	NA	20.07.2017	CSE	CST	0	NA	No	No 10.05.2018	Regular
52	Mrs. M. Sailaja	M. Tech	ANU	2010	Y	Asst. Prof	NA	30.08.2016	CSE	CSE	0	NA	No	Yes	Regular
53	Mrs. V. SreeLahari	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	28.06.2017	CSE	CSE	0	NA	No	Yes	Regular
54	Mr.Ch.Sekhar	M.Tech	JNTUK	2011	Y	Asst. Prof	NA	30.05.2012	CSE	CSE	0	NA	No	Yes	Regular
55	Mr.M.Srinivasa Rao	M.Tech	JNTUK	2015	Y	Asst. Prof	NA	20.04.2015	CSE	CSE	0	NA	No	Yes	Regular
56	Mr.G.Vinay Reddy	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	06.03.2017	CSE	CSE	0	NA	No	Yes	Regular

Table B.5.a: Consolidated Faculty Information 2019-20, 2018-19 and 2017-18

Faculty Information CAY (2019-20)

S. No	Name of Faculty Member	Qualification			Association with the Institution	Designation	Date on which designated as Professor or Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated(Y/N) Date of Leaving In case currently associated is (No)	Nature of Association (Regular/Contract)
		Degree (Highest degree)	University	Year of attaining higher Qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving the Ph.D during the Assessment Years		
1	Dr. T.V. Madhusudhan Rao	Ph.D	JNTUK	2015	Y	Professor	NA	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
2	Dr. B. Prasad	Ph.D	AU	2015	Y	Professor	01.06.2006	09.11.2002	CSE	CSE	0	NA	No	Yes	Regular
3	Dr. K. Vijaya Kumar	Ph.D	KU	2017	Y	Assoc. Prof	27.09.2017	20.05.2013	CSE	CSE	10	NA	No	Yes	Regular
4	Dr. P. Vijaya Bharati	Ph.D	GITAM	2020	Y	Assoc. Prof	08.02.2020	14.09.2009	CSE	CSE	3	NA	Yes	Yes	Regular
5	Dr. N. Thirupathi Rao	Ph.D	AU	2015	Y	Assoc. Prof	31.07.2017	04.01.2016	CSE	CSE	0	NA	No	Yes	Regular
6	Dr. G. Neelima	Ph.D	GITAM	2019	Y	Assoc. Prof	11.12.2019	02.11.2018	CSE	CSE	0	NA	No	Yes	Regular
7	Mrs. D. Kamal Kumari	M. Tech	AU	2011	N	Asst. Prof	NA	03.06.2013	CSE	CST	0	NA	No	No 10.05.2020	Regular
8	Mrs. M. Mamatha Laxmi	M. Tech	JNTUH	2010	Y	Asst. Prof	NA	21.08.2014	CSE	CSE	4	NA	No	Yes	Regular
9	Mr. B. Venkatesh	M.Tech	JNTUK	2013	Y	Asst. Prof	NA	24.08.2015	CSE	ECM	0	NA	No	Yes	Regular
10	Mr. Ch. Sudhakar	M.Tech	JNTUK	2015	Y	Asst. Prof	NA	13.11.2015	CSE	CSE	0	NA	No	Yes	Regular

11	Mr. I. Raju	M. Tech	AU	2015	Y	Asst. Prof	NA	31.03.2016	CSE	CST	4	NA	No	Yes	Regular
12	Mrs. Y. Vineela Sravya	M. Tech	GITAM	2015	Y	Asst. Prof	NA	11.04.2016	CSE	SE	4	NA	No	Yes	Regular
13	Mrs. R. Pravallika	M. Tech	JNTUK	2016	Y	Asst. Prof	NA	31.05.2016	CSE	CSE	4	NA	No	Yes	Regular
14	Mrs. M. Sailaja	M. Tech	ANU	2010	Y	Asst. Prof	NA	30.08.2016	CSE	CSE	0	NA	No	Yes	Regular
15	Mrs. G. Sandhya	M. Tech	AU	2016	Y	Asst. Prof	NA	20.03.2017	CSE	CST	4	NA	No	Yes	Regular
16	Mrs. G. Pavani latha	M. Tech	AU	2017	Y	Asst. Prof	NA	03.04.2017	CSE	CST	2	NA	No	Yes	Regular
17	Mr. T. Hari babu	M. Tech	AU	2015	N	Asst. Prof	NA	3.04.2017	CSE	CST	0	NA	No	No 01.05.2020	Regular
18	Mr. P. Praveen Kumar	M.Tech	AU	2015	N	Asst. Prof	NA	21.04.2017	CSE	CST	0	NA	No	No 12.05.2020	Regular
19	Mrs. B. Madhavi	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	08.06.2017	CSE	CSE	0	NA	No	Yes	Regular
20	Mr. Mohan Mahanty	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
21	Mr. D. Chandra Mouli	M.Tech	JNTUK	2012	Y	Asst. Prof	NA	12.06.2017	CSE	CSE	0	NA	No	Yes	Regular
22	Mr. S. Venkatesh	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
23	Mr. S. Raju Chintalapati	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
24	Mr. M. Krishnam Raju	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	20.06.2017	CSE	CSE	0	NA	No	Yes	Regular
25	Mrs. V. Sree Lahari	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	28.06.2017	CSE	CSE	0	NA	No	Yes	Regular
26	Mrs. N. Sowjanya Kumari	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	25.05.2018	CSE	CSE	1	NA	No	Yes	Regular
27	Mr. D. Rajendra Dev	M.Tech	GITAM	2014	Y	Asst. Prof	NA	06.06.2018	CSE	SE	8	NA	No	Yes	Regular
28	Ms. Rita Roy	M.Tech	GITAM	2014	Y	Asst. Prof	NA	06.06.2018	CSE	CST	8	NA	No	Yes	Regular
29	Mr. R. Ravi	M.Tech	AU	2014	Y	Asst. Prof	NA	30.06.2018	CSE	CST	4	NA	No	Yes	Regular

30	Mrs. K. Deepthi Krishna	M.Tech	AU	2017	N	Asst. Prof	NA	03.05.2019	CSE	CST	2	NA	No	No 10.5.2020	Regular
31	Mrs. J. Hima Bindu	M.Tech	JNTUK	2014	Y	Asst. Prof	NA	12.06.2019	CSE	CSE	3	NA	No	Yes	Regular
32	Mrs. Sheik Rahamuinissa	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	15.06.2019	CSE	CSE	2	NA	No	Yes	Regular
33	Ms. B Haritha Laxmi	M.Tech	JNTUK	2016	Y	Asst. Prof	NA	20.06.2019	CSE	CSE	2	NA	No	Yes	Regular
34	Mr. A. Maheswara Rao	M.Tech	JNTUK	2017	Y	Asst. Prof	NA	21.06.2019	CSE	CSE	2	NA	No	Yes	Regular

Table B.5.b: Faculty Information CAY (2019-20)

Faculty Information CAY (2018-19)

S. No	Name of Faculty Member	Qualification			Association with the Institution	Designation	Date on which designated as Professor or Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated(Y/N) Date of Leaving In case currently associated is (No)	Nature of Association (Regular/Contract)
		Degree (Highest degree)	University	Year of attaining higher Qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving the Ph.D during the Assessment Years		
1	Dr. M. Ben Swaroop	Ph.D	AU	2011	Y	Professor	08.05.2016	16.06.2012	CSE	CSE		NA	No	No 10.05.2019	Regular
2	Dr. T.V. Madhusudhan Rao	Ph.D	JNTUK	2015	Y	Professor	NA	10.06.2017	CSE	CSE		NA	No	Yes	Regular
3	Dr. B. Prasad	Ph.D	AU	2015	Y	Professor	01.06.2006	09.11.2002	CSE	CSE		NA	No	Yes	Regular
4	Dr. K. Vijaya Kumar	Ph.D	KU	2017	Y	Assoc Prof	27.09.2017	20.05.2013	CSE	CSE	4	NA	No	Yes	Regular
5	Dr. N. Thirupathi Rao	Ph.D	AU	2015	Y	Assoc Prof	31.07.2017	04.01.2016	CSE	CSE		NA	No	Yes	Regular
6	Dr. J.Anitha	Ph.D	AU	2016	N	Assoc Prof	NA	18.11.2015	CSE	CSE		NA	No	No 01.07.2019	Regular
7	Mrs. P. Vijaya Bharati	M.Tech	GITAM	2010	Y	Asst. Prof	NA	14.09.2009	CSE	CSE	1	NA	No	Yes	Regular
8	Mr. S. Ram Prasad Reddy	M Tech	AU	2008	N	Asst. Prof	NA	28.04.2011	CSE	CSE	1	NA	No	No 12.02.2020	Regular
9	Mr. L. Bhupathi Rao	M.Tech	AU	2010	N	Asst Prof	NA	01.11.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular

10	Mr. B. A. Ganesh	M.Tech	JNTUK	2011	N	Asst Prof	NA	15.11.2011	CSE	CSE	0	NA	No	No 14.10.2019	Regular
11	Mr. A.N. Suresh	M.Tech	AU	2011	N	Asst Prof	NA	01.12.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular
12	Mrs. D. Kamal Kumari	M. Tech	AU	2011		Asst Prof	NA	03.06.2013	CSE	CST	0	NA	No	No 10.05.2020	Regular
13	Mr. K. Madhuri	M.Tech	JNTUK	2012	N	Asst Prof	NA	03.06.2013	CSE	CSE	0	NA	No	No 15.06.2019	Regular
14	Mrs. M. Mamatha Laxmi	M. Tech	JNTUH	2010	Y	Asst Prof	NA	21.08.2014	CSE	CSE	1	NA	No	Yes	Regular
15	Mrs. S. Chandini	M. Tech	CU	2015	N	Asst Prof	NA	21.04.2015	CSE	CSE		NA	No	No 05.06.2019	Regular
16	Mr. B. Venkatesh	M.Tech	JNTUK	2013	Y	Asst Prof	NA	24.08.2015	CSE	ECM		NA	No	Yes	Regular
17	Mr. Ch. Sudhakar	M.Tech	JNTUK	2015	Y	Asst Prof	NA	13.11.2015	CSE	CSE		NA	No	Yes	Regular
18	Ms. T. Padmavathy	M. Tech	JNTUK	2015	N	Asst Prof	NA	09.12.2015	CSE	CSE	0	NA	No	No 14.10.2019	Regular
19	Mr. I. Raju	M. Tech	AU	2015	Y	Asst Prof	NA	31.03.2016	CSE	CST	2	NA	No	Yes	Regular
20	Mrs. Y. Vineela Sravya	M. Tech	GITAM	2015	Y	Asst Prof	NA	11.04.2016	CSE	SE	1	NA	No	Yes	Regular
21	Mrs. R. Pravallika	M. Tech	JNTUK	2016	Y	Asst Prof	NA	31.05.2016	CSE	CSE	1	NA	No	Yes	Regular
22	Mrs. M. Sailaja	M. Tech	ANU	2010	Y	Asst Prof	NA	30.08.2016	CSE	CSE	0	NA	No	Yes	Regular
23	Mrs. G. Sandhya	M. Tech	AU	2016	Y	Asst Prof	NA	20.03.2017	CSE	CST	0	NA	No	Yes	Regular
24	Mrs. G. Pavani Latha	M. Tech	AU	2017	Y	Asst Prof	NA	03.04.2017	CSE	CST	0	NA	No	Yes	Regular
25	Mr. T. Hari babu	M. Tech	AU	2015	N	Asst Prof	NA	3.04.2017	CSE	CST	2	NA	No	No 01.05.2020	Regular
26	Mr.Ch. V. Bhikshapathi	M Tech	AU	2017	N	Asst Prof	NA	10.04.2017	CSE	CST	0	NA	No	No 24.06.2019	Regular
27	Mr. P. Praveen Kumar	M.Tech	AU	2015	N	Asst Prof	NA	21.04.2017	CSE	CST	0	NA	No	No 12.05.2020	Regular
28	Mrs. B. Madhavi	M.Tech	JNTUK	2017	Y	Asst Prof	NA	08.06.2017	CSE	CSE	0	NA	No	Yes	Regular

29	Mr. Mohan Mahanty	M.Tech	JNTUK	2016	Y	Asst Prof	NA	10.06.2017	CSE	CSE		NA	No	Yes	Regular
30	Mr. D. Chandra Mouli	M.Tech	JNTUK	2012	Y	Asst Prof	NA	12.06.2017	CSE	CSE		NA	No	Yes	Regular
31	Mr. S. Venkatesh	M.Tech	JNTUK	2016	Y	Asst Prof	NA	15.6.2017	CSE	CSE	0	NA	No	Yes	Regular
32	Mr. S. Raju Chintalapati	M.Tech	JNTUK	2014	Y	Asst Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
33	Mr. M. Krishnam Raju	M.Tech	JNTUK	2016	Y	Asst Prof	NA	20.06.2017	CSE	CSE	0	NA	No	Yes	Regular
34	Mrs. V. Sree Lahari	M.Tech	JNTUK	2017	Y	Asst Prof	NA	28.06.2017	CSE	CSE	0	NA	No	Yes	Regular
35	Mrs. D. Savitri	M.S	BITS	2010	N	Asst Prof	NA	11.07.2017	CSE	SE	0	NA	No	No 25.07.2019	Regular
36	Mrs. N. Sowjanya Kumari	M.Tech	JNTUK	2014	Y	Asst Prof	NA	25.05.2018	CSE	CSE	0	NA	No	Y	Regular
37	Mr. D. Rajendra Dev	M.Tech	GITAM	2014	Y	Asst Prof	NA	06.06.2018	CSE	SE	2	NA	No	Y	Regular
38	Ms. Rita Roy	M.Tech	GITAM	2014	Y	Asst Prof	NA	06.06.2018	CSE	CST	2	NA	No	Y	Regular
39	Mr. R. Ravi	M.Tech	JNTUK	2016	Y	Asst Prof	NA	30.06.2018	CSE	CST	0	NA	No	Y	Regular

Table B.5.c: Faculty Information CAY (2018-19)

Faculty Information CAY (2017-18)

S. No	Name of Faculty Member	Qualification			Association with the Institution	Designation	Date on which designated as Professor or Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated(Y/N) Date of Leaving In case currently associated is (No)	Nature of Association (Regular/Contract)
		Degree (Highest degree)	University	Year of attaining higher Qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving the Ph.D during the Assessment Years		
1	Dr. M. Ben Swaroop	Ph.D	AU	2011	Y	Professor	08.05.2016	16.06.2012	CSE	CSE	0	NA	No	Yes	Regular
2	Dr. T.V. Madhusudhan Rao	Ph.D	JNTUK	2015	Y	Professor	NA	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
3	Dr. B. Prasad	Ph.D	AU	2015	Y	Professor	01.06.2006	09.11.2002	CSE	CSE	0	NA	No	Yes	Regular
4	Dr. K. Vijaya Kumar	Ph.D	KU	2017	Y	Assoc Prof	27.09.2017	20.05.2013	CSE	CSE	4	NA	No	Yes	Regular
5	Dr. N. Thirupathi Rao	Ph.D	AU	2015	Y	Assoc Prof	31.07.2017	04.01.2016	CSE	CSE	0	NA	No	Yes	Regular
6	Dr. J.Anitha	Ph.D	AU	2016	N	Assoc Prof	NA	18.11.2015	CSE	CSE	0	NA	No	No 01.07.2019	Regular
7	Mr. S. Ram Prasad Reddy	M Tech	AU	2008	N	Asst. Prof	NA	28.04.2011	CSE	CSE	3	NA	No	No 12.02.2020	Regular
8	Mrs. P. Vijaya Bharati	M.Tech	GITAM	2010	Y	Asst. Prof	NA	14.09.2009	CSE	CSE	0	NA	No	Yes	Regular

9	Mr. N. K. Santosh	M.Tech	GITAM	2010	N	Asst Prof	NA	14.06.2010	CSE	CSE	0	NA	No	No 26.12.2018	Regular
10	Mrs. K. Narsamma	M.Tech	JNTUK	2012	N	Asst. Prof	NA	18.07.2011	CSE	CSE	0	NA	No	No 01.07.2018	Regular
11	Mr. L. Bhupathi Rao	M.Tech	AU	2010	N	Asst Prof	NA	01.11.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular
12	Mr. B. A. Ganesh	M.Tech	JNTUK	2011	N	Asst Prof	NA	15.11.2011	CSE	CSE	0	NA	No	No 14.10.2019	Regular
13	Mr. A. N. Suresh	M.Tech	AU	2011	N	Asst Prof	NA	01.12.2011	CSE	CST	0	NA	No	No 14.10.2019	Regular
14	Mrs. D. Kamal Kumari	M. Tech	AU	2011	N	Asst Prof	NA	03.06.2013	CSE	CST	1	NA	No	No 10.5.2020	Regular
15	Mr. K. Madhuri	M.Tech	JNTUK	2012	N	Asst Prof	NA	03.06.2013	CSE	CSE	0	NA	No	No 15.06.2019	Regular
16	Mrs. M. Mamatha Laxmi	M. Tech	JNTUH	2010	Y	Asst Prof	NA	21.08.2014	CSE	CSE	0	NA	No	Yes	Regular
17	Ms. D. Chandrika	M.Tech	AU	2014	N	Asst Prof	NA	22.01.2015	CSE	CST	0	NA	No	No 28.07.2018	Regular
18	Mrs. S. Chandini	M. Tech	CU	2015	N	Asst Prof	NA	21.04.2015	CSE	CSE	0	NA	No	No 05.06.2019	Regular
19	Mr. B. Venkatesh	M.Tech	JNTUK	2013	Y	Asst Prof	NA	24.08.2015	CSE	ECM	0	NA	No	Yes	Regular
20	Mr. Ch. Sudhakar	M.Tech	JNTUK	2015	Y	Asst Prof	NA	13.11.2015	CSE	CSE	0	NA	No	Yes	Regular
21	Mr. V. Uma Shankar Rao	M.Tech	JNTUK	2015	N	Asst Prof	NA	23.11.2015	CSE	CSE	0	NA	No	No 05.07.2018	Regular
22	Ms. T. Padmavathy	M. Tech	JNTUK	2015	N	Asst Prof	NA	09.12.2015	CSE	CSE	0	NA	No	No 14.10.2019	Regular
23	Mr. I. Raju	M. Tech	AU	2015	Y	Asst Prof	NA	31.03.2016	CSE	CST	0	NA	No	Yes	Regular
24	Mrs. Y. Vineela Sravya	M. Tech	GITAM	2015	Y	Asst Prof	NA	11.04.2016	CSE	SE	0	NA	No	Yes	Regular
25	Mrs. R. Pravallika	M. Tech	JNTUK	2016	Y	Asst Prof	NA	31.05.2016	CSE	CSE	0	NA	No	Yes	Regular
26	Mrs. M. Sailaja	M. Tech	ANU	2010	Y	Asst Prof	NA	30.08.2016	CSE	CSE	0	NA	No	Yes	Regular
27	Mrs. J. Aruna Devi	M.Tech	JNTUK	2011	N	Asst Prof	NA	16.03.2017	CSE	CSE	0	NA	No	No 20.08.2018	Regular

28	Mrs. G. Sandhya	M. Tech	AU	2016	Y	Asst Prof	NA	20.03.2017	CSE	CST	0	NA	No	Yes	Regular
29	Mrs. G. Pavani Latha	M. Tech	AU	2016	Y	Asst Prof	NA	03.04.2017	CSE	CST	0	NA	No	Yes	Regular
30	Mr. T. Hari babu	M. Tech	AU	2015	N	Asst Prof	NA	03.04.2017	CSE	CST	0	NA	No	No 01.05.2020	Regular
31	Mr. K. Mariya babu	M Tech	AU	2018	N	Asst Prof	NA	07.04.2017	CSE	CST	0	NA	No	No 15.06.2018	Regular
32	Mr.Ch. V. Bhikshapathi	M Tech	AU	2017	N	Asst Prof	NA	10.04.2017	CSE	CST	0	NA	No	No 24.06.2019	Regular
33	Mr. P. Praveen Kumar	M.Tech	AU	2015	N	Asst Prof	NA	21.04.2017	CSE	CST	0	NA	No	No 12.05.2020	Regular
34	Mrs. B. Madhavi	M.Tech	JNTUK	2017	Y	Asst Prof	NA	08.06.2017	CSE	CSE	0	NA	No	Yes	Regular
35	Mr. Mohan Mahanty	M.Tech	JNTUK	2016	Y	Asst Prof	NA	10.06.2017	CSE	CSE	0	NA	No	Yes	Regular
36	Mr. D. Chandra Mouli	M.Tech	JNTUK	2012	Y	Asst Prof	NA	12.06.2017	CSE	CSE	0	NA	No	Yes	Regular
37	Mr. S. Venkatesh	M.Tech	JNTUK	2016	Y	Asst Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
38	Mr. S. Raju Chintalapati	M.Tech	JNTUK	2014	Y	Asst Prof	NA	15.06.2017	CSE	CSE	0	NA	No	Yes	Regular
39	Mr. M. Krishnam Raju	M.Tech	JNTUK	2016	Y	Asst Prof	NA	20.06.2017	CSE	CSE	0	NA	No	Yes	Regular
40	Mrs. V. Sree Lahari	M.Tech	JNTUK	2017	Y	Asst Prof	NA	28.06.2017	CSE	CSE	0	NA	No	Yes	Regular
41	Mrs. D. Savitri	M.S	BITS	2010	N	Asst Prof	NA	11.07.2017	CSE	SE	0	NA	No	No 25.07.2019	Regular
42	Mrs. Ch. Ramya	M.Tech	JNTUK	2012	N	Asst Prof	NA	15.07.2017	CSE	CSE	0	NA	No	No 18.09.2018	Regular
44	Mr. D. Lova Raju	M.Tech	AU	2016	N	Asst Prof	NA	20.07.2017	CSE	CST	0	NA	No	No 10.05.2018	Regular

Table B.5.d: Faculty Information CAY (2017-18)

5.1. Student-Faculty Ratio (SFR) (20)
(To be calculated at Department Level)

No. of UG Programs in the Department (n): **01**
No. of PG Programs in the Department (m): **01**
No. of Students in UG 2nd Year= u1
No. of Students in UG 3rd Year= u2
No. of Students in UG 4th Year= u3
No. of Students in PG 1st Year= p1
No. of Students in PG 2nd Year= p2

No. of Students = Sanctioned Intake + Actual admitted lateral entry students
(The above data to be provided considering all the UG and PG programs of the department)
S=Number of Students in the Department = UG1 + UG2 +… +UGn + PG1 + …PGn

F = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Teacher Ratio (STR) = S / F

Year	CAY (2019-20)	CAYm1 (2018-19)	CAYm2 (2017-18)
u1.1	180+18	180+21	180+14
u1.2	180+21	180+14	180+11
u1.3	180+14	180+11	180+12
UG1	**u1.1+u1.2+u1.3 = 593**	**u1.1+u1.2+u1.3 = 586**	**u1.1+u1.2+u1.3 = 577**
p1.1	18	18	18
p1.2	18	18	18
PG1	**p1.1+p1.2 = 36**	**p1.1+p1.2 = 36**	**p1.1+p1.2 = 36**
Total No. of Students in the Department **(S)**	**S1 = 629**	**S2 = 622**	**S3 = 613**
No. of Faculty in the Department**(F)**	**F1 = 34**	**F2 = 39**	**F3 = 43**
Student Faculty Ratio (SFR)	**SFR1=S1/F1 = 18.50**	**SFR2=S2/F2 = 15.95**	**SFR3=S3/F3 = 14.26**
Average SFR	**SFR=(SFR1+SFR2+SFR3) / 3 = 16.24**		

Table B: 5.1.a: Student-Faculty Ratio

Student Teacher Ratio (STR) = S / F = 16.24

Note: Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1 and zero for average SFR higher than 25:1. Marks distribution is given as below:

<=15 - 20Marks
<=17 - 18Marks
<=19 - 16Marks
<=21 - 14Marks
<=23 - 12Marks
<=25 - 10Marks
>25.0 - 0 Marks

All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. *Shall have the AICTE prescribed qualifications and experience.*
2. *Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.*
3. *Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit.*

5.1.1 Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	**Total number of contractual faculty in the department**
CAY(2019-20)	34	NIL
CAYm1(2018-19)	39	NIL
CAYm2(2017-18)	43	NIL

Table B.5.1.1: Faculty Information

5.2. Faculty Cadre Proportion (25)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = 1/9 x Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required = 2/9 x Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required = 6/9 x Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2019-20)	3	2	6	2	20	30
CAYm1 (2018-19)	3	3	6	3	20	33
CAYm2 (2017-18)	3	3	6	2	20	38
Average Numbers	RF1 = 3.00	AF1 = 2.67	RF2 = 6.00	AF2 = 2.33	RF3 = 20.00	AF3 = 33.67

Table B.5.2: Faculty Cadre Proportion

Cadre Ratio Marks= $\left[\left[\frac{AF1}{RF1}\right] + \left[\frac{AF2}{RF2} * 0.6\right] + \left[\frac{AF3}{RF3} * 0.4\right]\right] * \ 12.5 =$ **22.00**

5.3. Faculty Qualification (25)

FQ =2.5 × [(10X +4Y)/F)] where X is no. of regular faculty with Ph.D., Y is no. of regular faculty with M.Tech. F is no. of regular faculty required to comply 20:1 Faculty-Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Year	X	Y	F	FQ=2.5 x [(10X +4Y)/F)]
CAY (2019-20)	4	30	31	12.90
CAYm1(2018-19)	6	33	31	15.48
CAYm2(2017-18)	5	38	30	16.83
Average Assessment				**15.07**

Table B.5.3: Faculty Qualification

5.4. Faculty Retention (25)

No. of regular faculty members in CAYm1= 37 CAY=32

Item	*Marks*
>=90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year)	*25*
>=75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year)	*20*
>=60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year)	*15*
>=50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year)	*10*
<50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year)	*0*

Description	2018-19	2019-20
No. of Faculty Retained	35	24
Total No. of Faculty	43	43
% of Faculty Retained	81	56
Average Retention ratio = 68.5		
Assessment Marks = 15		

Table B.5.4: Faculty Retention

5.5. Innovations by the Faculty in Teaching and Learning (20)

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:

- *The work must be made available on Institute website*
- *The work must be available for peer review and critique*
- *The work must be reproducible and developed further by other scholars*

The department/institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, and significance of results, effective presentation and reflective critique

Innovations by the Faculty in teaching and learning shall be summarized as per the following.

In present competitive world, the technology is changing very rapidly. The engineering graduates must capable of acquaint with these changes to grab the opportunities globally. This can be achieved through effective content delivery. Students will come from different locations with different aspirations which in turn influence the learning style. Irrespective of learning style of the student, as an educator the content must be delivered effectively through innovative practices in Teaching & Learning to make them globally acceptable in line with our mission and vision.

A. Work is available in the institution website

Department of CSE follows a systematic framework for implementation of innovative teaching learning strategies effectively in regular course work along with traditional classroom teaching. The detailed framework for implementation of teaching learning practices is as shown in below Figure 5.5.a.

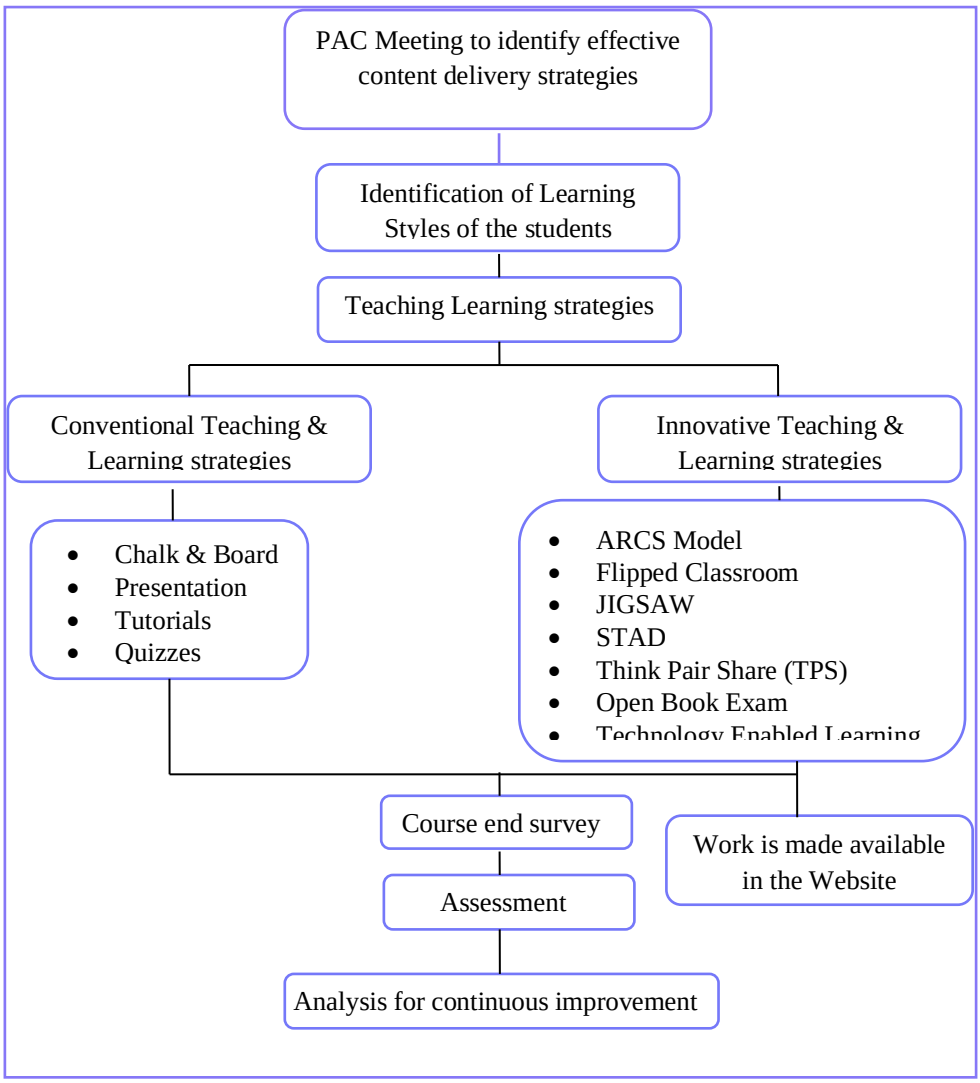


Figure 5.5.a: Framework for the implementation of Innovative Teaching Learning & Conventional Teaching Learning Strategies

For the effective implementation of Innovations in Teaching Learning strategies the following steps are taken:

1. Program Assessment Committee (PAC) conducts meeting with other senior faculty members to identify the innovations in Teaching learning strategies to be implemented
2. The innovative practices employed in teaching learning using ARCS model of Instruction, Flipped classroom, JIGSAW, Student Teams Achievements Division (STAD), Think Pair Share (TPS), Open Book Exam (OBE) and Technology Enabled Learning are evaluated on students with different learning styles. We conducted a

questionnaire to students to assess their learning styles using Felder and Silverman model. The following link is used to conduct the survey

http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSpage.html

3. According to Felder there are four dimension of learning styles, with each dimension having two opposite categories.
    i. Sensing / Intuitive - How information is perceived?
    ii. Visual / Verbal - How information is presented?
    iii. Active / Reflective - How information is processed?
    iv. Sequential / Global - How information is understanding?
4. Students can be classified based on their learning styles as Active / Reflective, Sensing / Intuitive, Visual / Verbal and Sequence / Global as shown in Table B.5.5.1

Type of Learner	Preferences
Sensing	prefers concrete thinking, practical, concerned with facts and procedures
Intuitive	prefers conceptual thinking, innovative, concerned with theories and meanings
Visual	prefers visual representations, pictures, diagrams, and flowcharts
Verbal	prefers written and spoken explanations
Active	prefers to try things out, working with other in groups
Reflective	prefers thinking things through, working alone or with familiar partner
Sequential	prefers linear thinking, orderly learns in small incremental steps
Global	prefers holistic thinking, system thinkers, learns in large leaps

Table B.5.5.1: Types of learners and their preferences

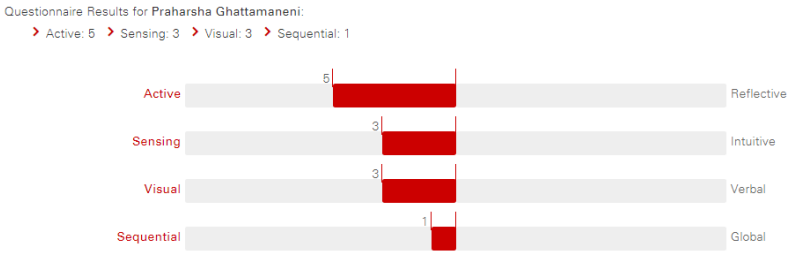


Figure 5.5.b: Felder- Silverman index of learning styles

5. Course end survey is collected from all the students at the end of each course on their understandings with reference to teaching style adopted
6. Students' performance is assessed in MID examinations and University end examinations as per the university guidelines.
7. The obtained results are analyzed for the preparation of action plan for the next academic year
8. The contribution of faculty towards innovations in teaching learning are made available in the institute website for peer review and critique

B. Work is available for peer review and critique

The innovations adopted for teaching and learning in our department are made available for peer review and critique by encouraging our faculty to do Engineering Educator Certification (IIEECP) course which is organized by Indo Universal Collaboration for Engineering Education (IUCEE) in association with International Society for Engineering Pedagogy (IGIP), Austria and Microsoft. The following is the sample of peer review and critique received from the reviewers for the Innovations made by our department faculty towards Teaching and Learning.

Name of the faculty	Strategies submitted for peer review and critique	Peer review and critique by reviewer	
		Marks (15M)	Comments
Prof. A. Sesha Rao	Creating dynamic classroom 1. Use Pictures, Schematics, graphs and simple sketches 2. Providing open ended problem	15	Excellent work! Happy to know that you are an enthusiastic teacher, it really helps in getting better outcome in class as students also takes things positively. Do enjoy the implementation. *Azeem Unnisa , Feb 14, 2018 at 4:03pm*
	Creating dynamic classroom 1. Think Pair Share 2. Writing Assignments	15	Excellent work! I would like to know how the derivation was completed using TPS activity, it would have been better if the activity was explained phase wise of the TPS activity. Usually TPS is conducted for 2 to 3 mins maximum. *Azeem Unnisa , Feb 18, 2018 at 3:58pm*
	Effective Assessment-1	11	Good Information *sanjeev_kavale@bvb.edu , May 1, 2018 at 9:52am*
	Effective Assessment-2	15	Well written, Reflective analysis is missing *sanjeev_kavale@bvb.edu , May 1, 2018 at 11:32am*
	Harnessing the power of technology- Creating course website	13	Your submission page is impressive and you detailed each screenshot elaborately. I don't find any details about the syllabus from the screenshot and so as the associated items

			overall a good attempt. *Rajdeep Deb , Apr 11, 2018 at 7:33pm*
	Harnessing the power of technology- Flipped classroom	15	Your submission clear and exciting. A good attempt for flipped classroom environment. Your reflective report involve good level of critical analysis, to me this is the showstopper of your submission. Like the fact that you shared all the content through LMS that is the prime purpose for which we asked you to develop LMS. *Rajdeep Deb , Apr 13, 2018 at 12:55am*

Table B.5.5.2: Report on Peer review and critique by reviewer of Prof. A. Sesha Rao

Along with it, we encourage our faculty to publish papers in engineering education related Journals.

C. Work must be reproducible and developed further by other scholars (2)

The innovation strategies adopted by faculty are made available in department library along with publishing in institute website. The faculty who implemented the strategy will conduct an orientation program to all the colleague faculty members and explains goals, significance and the way of selecting appropriate strategy. With this strategy, most of the faculty will try to reproduce the innovation strategies while delivering courses in the upcoming semesters. Our faculty also encouraged to submit papers on the innovation's strategies adopted

The scholars or colleague faculty may reproduce the innovation teaching learning strategies by incorporating

1. As the quality of methodology greatly influenced by the learning style of the student, the work may be carried out with another method of assessing learning styles of the students like Grasha-Reichmann model.
2. Flipped classroom may be conducted with another method of collaborating activity like JIGSAW or STAD as in class activity

3. JIGSAW strategy may be reproduced and observe the effectiveness by reducing the team size.

D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique (10)

The innovative teaching learning strategies provide opportunities for students to work in teams, learn from peers, and learn from themselves. Also, the students have opportunity to engage in sophisticated and complex levels of cognitive activity–define, analyze, evaluate, reflect, assess, and solve real-world problems. The evaluation suggests that implementation of these methodologies in the engineering design courses improve the higher-level cognitive skills of the students as well as integrated theory, design, and practice.

I. Appropriate methods

To improve the quality of teaching learning and to make students actively participate in the class environment, the following are the appropriate methods.

The appropriate innovations in teaching learning are:

1. ARCS (Attention, Relevance, Confidence, & Satisfaction) Model
2. Flipped Classroom
3. JIGSAW
4. Student Teams Achievements Division (STAD)
5. Think Pair Share (TPS)
6. Open Book Exam (OBE)
7. Technology Enabled Learning (TEL)

1. ARCS Model

In any classroom, some students might learn more than students in the same or another classroom. The main reason for this is different levels of learning for students both within and across classrooms. In general, for effective content delivery, every educator must try to see that the content is reachable to at least 95% of the students in class.

Goals of the strategy:

The ARCS model is an instructional design approach that focuses on the motivational aspects of learning environment. The model was created by John Keller in the 80s. According to John Keller there are four steps in the instructional design process — Attention, Relevance, Confidence, & Satisfaction (ARCS).

- Attention refers to the interest displayed by learners in taking in the concepts/ ideas being taught
- Relevance describes how the knowledge will help the learner's today and in the future (getting into a college or finding a job or getting a promotion)
- Learning design enhances the students' confidence with a method for estimating their probability of success
- Learners must obtain some type of satisfaction or a reward from a learning experience. This can be in the form of a sense of achievement.

Topic **:** Pipeline Architecture

Subject **:** Computer Architecture & Organization

Year and Semester **: II CSE I SEM**

Learning objective for the lecture: The student is able to:

- ✓ Understand pipeline architecture processor - RISC Pipeline Vector processing.

Component	**Implementation Strategies**
Attention (What is interesting about this?) ***Topic Content***: Pipeline Architecture - RISC processor	To draw the learners **Attention:** 1) Started class with brainstorming session by posing questions on what is meant by pipeline, multi-tasking, parallel execution, task breaking etc., 2) Since pipeline architecture is advanced technology, proposed to arrange 'Summer Internship ' to Defense Research Organization. 3) Gave real live product car fabrication which is fabricated in pipelined fashion. 4) To understand the real concept of throughput calculation played video lectures with animation drawn from NPTEL sources. 5) Used a variety of methods to reinforce the course material and which helps to incorporate a variety of learning styles.
Relevance (Why should I be wasting my time studying this?)	The strategies to accomplish the **Relevance:** 1) Students are briefed about the importance of new learning- This concept is more useful for microprocessor based embedded systems for which lot of avenues are open. Also, useful to get jobs in IOT related applications. A lot of

Topic Content: Pipeline Architecture - RISC processor	demand in FABS companies, Chip fabrication companies, for students who are strong in Pipeline Architecture 2) Case studies: Students are assigned with some case studies related RISC, CISC Processor based computers mostly used in weather forecasting. 3) Goal oriented students: For those students who dream pursuing higher studies and do research this is one area where there is a lot of scope. 4) Machine Learning applications (especially Artificial Neural Networks) executing speed plays a major role so using pipe line architecture processor speed can be enhanced. 5) Role Model: One super senior of our college presently who is working for INTEL company after finishing his MS in US, doing the job of writing ***microprogramming*** code for dual processors.
Confidence (This is not difficult-I can do it) ***Topic Content***: Pipeline Architecture - RISC processor	To build a sense of **Confidence in** learners: 1) **Motivation:** In the beginning of the semester the students were told about evaluation process. The importance of each examination including online exam and home assignments is very much motivated. The students will be motivated with a quote like ' if first button of a shirt is put wrongly, rest of the buttons also will be put wrongly, in the same if a student fails in one semester its impact will be there on rest of the semesters. ***2) Self Growth:*** Each student was asked to prepare their future Goals, type neatly display in his/her study room. They were also asked to display great scientists' photos like, Einstein, Faraday, in study room. The Goals are revised by me frequently. They are also advised to participate in Campus Recruitment training Courses and technical workshops. Goals are verified by T&P faculty once in a month and were asked to rewrite/modify their own Goals. ***3) Feedback:*** Mentors are appointed for every 20 students to monitor their performance in every month. Mid exams marks are displayed in notice board and poor performance students are motivated to improve their performance. Slow learners are identified based on their performance; special care is taken for such students to improve their performance. ***4) Small Group Activities***: Students are divided into groups

	of three to six. Each group is assigned a team number and each group member is assigned a unique id. . When the trainer poses a question, group members get together, examine the possibilities, and construct an answer. The trainer then picks a number by drawing a card or rolling a die. The number selected designates the spokesperson for each table group. A second number designates the table group that will respond first. By involving in such group activities students are well motivated.
Satisfaction (This is great - I have learnt something new and useful) ***Topic Content***: Pipeline Architecture - RISC processor	**Learner's Satisfaction:** 1) Outstanding performance students are appreciated through rewards in public, like their names are displayed in college notice board, special appreciation letter from principal, fee wavering from management. 2) Parents whose wards selected on campus drives are felicitated along with their ward on Graduation Day. It gives motivation to juniors and self-satisfaction for selected students. 3) Equity: Transparency is maintained in all evaluation systems. Perfect rubrics are defined and displayed for students. Examination system is transparent, and all mid marks are displayed in notice boards.

Table B.5.5.3: Implementation of ARCS model

Significance of results & reflective critique:

The objective of this assignment is to learn how to apply the ARCS model to the content we are teaching. Basically, the concept says, students learn best

i) When the teacher can generate sufficient interest in the topic being studied.

ii) When the content is relevant.

iii) They feel they can master it.

iv) When they have the feeling that their effort has been well rewarded, and they have learnt something new and useful.

To begin with one might think, who has the time to do all this for each and every concept we are teaching but this is more a question of mind-set and incorporating these does not take more time

or effort than what your normal preparation would. Once you start working on these lines, your strategies/examples, lecture style will automatically start incorporating these.

2. Flipped Classroom

Flipped classroom methodology mainly focuses on the inquiry-based learning with the access of vast web information. The flipped strategy is a blended strategy with the goal to enhance student engagement and to attain predefined outcomes.

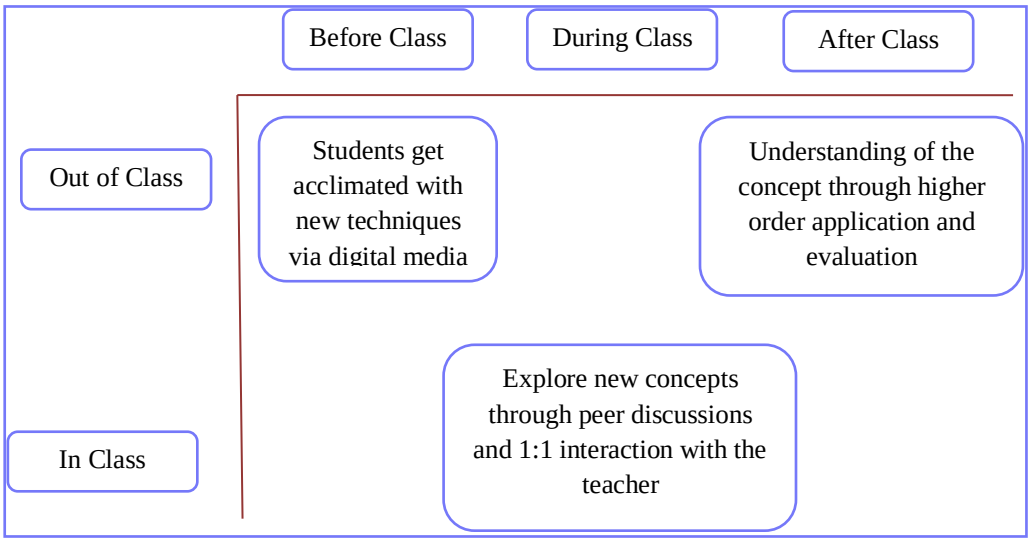


Figure 5.5.c: Implementation of flipped classroom strategy

This strategy includes three activities namely before, during and after class activities. Students get exposure to new technologies over digital media and the instructions given by the teacher over video lectures. During class, students interact with teacher and other students to explore new concepts. Based on the understandings, an assessment test may be conducted for the assessment.

Benefits of the Flipped classroom:

- More participation of students.
- Improved Faculty and Student interaction.
- Appropriate use of resources by the teacher for constructive learning methods.

Goals of the activity:

- Inspire students to learn the concepts thoroughly.
- To motivate students towards self-learning.
- To make use of visual learning.

Outcomes:

- Demonstrate points from a video than from a lecture notes.
- Build awareness and understanding of the course.
- Explain the java concepts especially the most basic and important aspects of the course.

Implementation: The implementation of a flipped classroom strategy for Java Programming course is presented below

Course : Java Programming

Class : II CSE, II SEM

Academic Year : 2017-18

Topic : Inheritance, types of inheritance

Activity Chosen : Flipped Classroom

Open source NPTEL video:

https://www.youtube.com/watch?v=rxsl1TzcEgg&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=14

Introduction Video: Inheritance in Java is a mechanism in which one object acquires all the properties and behaviours of a parent object. It is an important part of OOPs (Object Oriented programming system). The idea behind inheritance in Java is that you can create new classes that are built upon existing classes. When you inherit from an existing class, you can reuse methods and fields of the parent class. Moreover, you can add new methods and fields in your current class also. Inheritance represents the relationship which is also known as a parent-child relationship. A video is created by explaining the Inheritance and its types Concept –Single, Multilevel, Hierarchical and Hybrid inheritance, specifying some sources of web and the procedure of this activity. https://sites.google.com/view/viewcse/home

Question Posed: Describe about Inheritance and explain the implementation of different types of inheritance?

Outcomes: At the end of this activity, student will be able to:

- Demonstrate the importance of Inheritance concept
- Write Java programs using different types of inheritance concepts.

Planning of activity:

Pre Class Content: Provided web source to watch video, text books for reference and some web links in prior to all the learners. All the instructions were clearly described in video uploaded in course website.

- *Pre Class Activity:* Students were instructed to write the assignments based on their understandings
- *In Class Activity:* Conducted Think Pair Share dynamic class activity in class to assess the outcomes.
- *Post Class activity:* As a post class activity, conducted a quiz.
- Assessed and evaluated each student at each stage.

Assessment:

S.No	Roll No	Name of the Student	Team No	Pre Class Activity-Assignment (10M)	In Class Activity-Think Pair Share (10M)	Post Class Activity-Quiz (10M)	Total (30M)

Significance of results & reflective critique:

- All the students paid more attention while explaining this activity, accessing the web source and all are actively participated in In-class activity
- The slow learners are also actively participated on par with bright students
- Traditional classroom was perfectly converted into student centric classroom.
- With the predefined evaluation process, all students actively participated in every stage (writing) of the activity.

2. JIGSAW (Collaborative Learning)**:**

Collaborative learning is a group activity that involves students working together to obtain solution to a problem. Collaborative learning is effective in teaching programming course. Hence Collaborative learning is introduced to learn Java Programming.

The basic process involves formation two student groups HOME (JIGSAW) groups and EXPERT groups. The group size would be at most 6. EXPERT group is formed with the leaders of JIGSAW group.

Course : Java Programming

Class : II B.Tech II Sem CSE A

Academic Year : 2017-18

Topic : Java Features

Activity Chosen : JIGSAW- Collaborative

Concept for activity:

1. C, C++, JAVA Differences
2. Object oriented principles.
3. JAVA Features (Simple, Object-Oriented, Portable, Platform independent, Secured, Robust, Architecture neutral, Interpreted, High Performance, Multithreaded, Distributed, Dynamic).

Goals of this activity:

At the end of this activity, students will be able to:

1. Understand the differences among C, C++, JAVA Programming languages
2. Describe the object-oriented principles.
3. Explain various features of JAVA programming Language.

Outcome of the Activity:

- Builds self-esteem in students
- Increases student retention
- Enhances student satisfaction with the learning experience of JAVA
- Develops oral communication skills
- Develops social interaction skills

Strategy to create Home Groups:

1.The success of collaborative activity is based on how best we consider individual skill sets and mix them while team formation.

2.Before forming the balanced teams, we conduct a questionnaire to students to assess their learning styles.

a) Sensing-intuitive - how information is perceived
b) Visual-verbal - how information is presented
c) Active-reflective - how information is processed
d) Sequential-global - how the information is understood

The learning style of each student is classified with the help of the Felder and Silverman model. Students are categorized according to the Index of Learning Styles (ILS) questionnaire. This questionnaire categorized a student's preferred learning style along a sliding scale of four dimensions. To conduct the survey we used the following link:
http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSpage.html

Time planned: Time required to execute the event is maximum 150 min (3 periods) including survey of student learning styles, JIGSAW and EXPERT group's formation, peer discussion, student evaluation.

Formation of HOME groups (Heterogeneous):

The study was carried out with 61 students on Java Programming course. The teams were formed with size of 5 members in each time and hence, we had total 12 teams for my class. Care is taken to match the group size to the assigned subtasks. At the end of the collaborative learning, students were graded individually and group wise.

Students are divided into heterogeneous HOME groups and subsequently regrouped into 10 homogeneous groups known as EXPERT groups.

The 12 HOME groups are identified with scientist's names like Albert Einstein, Isaac Newton, Stephen Hawking, Niels Bohr and etc. In each team, the group members are identified as A1, A2, A3, A4, A5, B1, B2, B3, B4, B5, etc.

The Strong Global Learners of each group A1, B1, C1, D1, etc are appointed as group leaders. The Table-5.5.4 shows the learning styles score and their member ID of individual student.

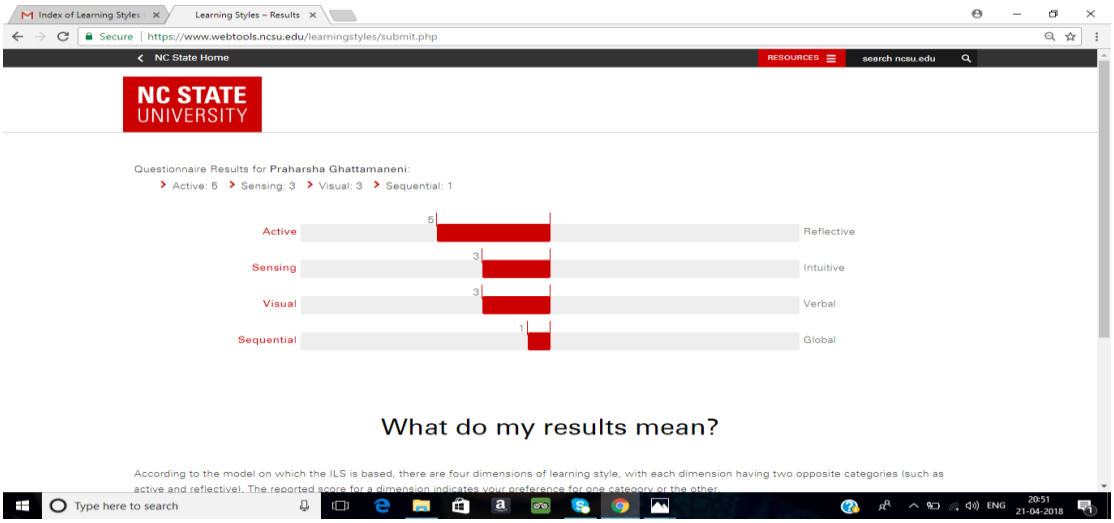


Figure 5.5.d: Felder- Silverman index of learning styles

Learning Styles	Number of students	Percentage of students (%)
Active	16	26.67
Reflective	3	5.00
Sensing	3	5.00
Intuitive	3	5.00
Visual	21	35.00
Verbal	2	3.33
Sequential	7	11.67
Global	6	10.00

Table B.5.5.4: The student learning styles score

5. Implementation of Activity

Course : Java Programming

Class : II CSE, II SEM

Topic : Java Features

Activity Chosen : JIGSAW

1. C, C++, JAVA Differences
2. Object oriented principles.
3. JAVA Features (Simple, Object-Oriented, Portable, Platform independent, Secured, Robust, Architecture neutral, Interpreted, High Performance, Multithreaded, Distributed, Dynamic).

Group No.	JIGSAW Home Group	Student Roll No	Member ID	Student learning ability	Topic Assigned to group
1	Albert Einstein (A)	16NM1A0502	A1- Leader	Strong Global Learner	Simple
		16NM1A0501	A2	Strong Sequential Learner	
		16NM1A0523	A3	Strong Visual Learner	
		16NM1A0563	A4	Strong Active Learner	
		16NM1A0510	A5	Strong Reflective Learner	
2	Isaac Newton (B)	16NM1A0542	B1-Leader	Strong Global Learner	Object-Oriented
		16NM1A0505	B2	Strong Sequential Learner	
		16NM1A0524	B3	Strong Visual Learner	
		16NM1A0509	B4	Strong Active Learner	
		16NM1A0516	B5	Strong Reflective Learner	
3	Stephen Hawking (C)	16NM1A0550	C1-Leader	Strong Global Learner	Portable
		16NM1A0527	C2	Strong Sequential Learner	
		16NM1A0526	C3	Strong Visual Learner	
		16NM1A0514	C4	Strong Active Learner	
		16NM1A0543	C5	Strong Reflective Learner	
4	Niels Bohr (E)	16NM1A0551	D1-Leader	Strong Global Learner	Platform independent
		16NM1A0529	D2	Strong Sequential Learner	
		16NM1A0528	D3	Strong Visual Learner	
		16NM1A0515	D4	Strong Active Learner	
		16NM1A0513	D5	Strong Sensing Learner	
5	Faraday (F)	16NM1A0554	E1-Leader	Strong Global Learner	Secured
		16NM1A0530	E2	Strong Sequential Learner	
		16NM1A0531	E3	Strong Visual Learner	
		16NM1A0538	E4	Strong Active Learner	
		16NM1A0521	E5	Strong Sensing Learner	
6	Galileo (G)	16NM1A0559	F1-Leader	Strong Global Learner	Robust
		16NM1A0548	F2	Strong Sequential Learner	
		16NM1A0533	F3	Strong Visual Learner	
		16NM1A0547	F4	Strong Active Learner	

		16NM1A0537	F5	Strong Visual Learner	
7	Thomas Edison (H)	16NM1A0503	G1-Leader	Strong Active Learner	Architecture Neutral
		16NM1A0555	G2	Strong Sequential Learner	
		16NM1A0536	G3	Strong Visual Learner	
		16NM1A0552	G4	Strong Active Learner	
		16NM1A0541	G5	Strong Visual Learner	
8	Graham Bell (K)	16NM1A0512	H1-Leader	Strong Active Learner	Interpreted
		16NM1A0504	H2	Strong Visual Learner	
		16NM1A0508	H3	Strong Verbal Learner	
		16NM1A0556	H4	Strong Active Learner	
		16NM1A0544	H5	Strong Visual Learner	
9	Charles Darwin (I)	16NM1A0525	I1-Leader	Strong Active Learner	High Performance
		16NM1A0518	I2	Strong Visual Learner	
		16NM1A0549	I3	Strong Verbal Learner	
		16NM1A0506	I4	Strong Active Learner	
		16NM1A0545	I5	Strong Visual Learner	
10	Archimedes (J)	16NM1A0534	J1-Leader	Strong Active Learner	Multithreaded
		16NM1A0519	J2	Strong Visual Learner	
		16NM1A0517	J3	Strong Intuitive Learner	
		16NM1A0507	J4	Strong Active Learner	
		16NM1A0546	J5	Strong Visual Learner	
11	Rutherford (K)	16NM1A0539	K1-Leader	Strong Active Learner	Distributed
		16NM1A0520	K2	Strong Visual Learner	
		16NM1A0535	K3	Strong Intuitive Learner	
		16NM1A0561	K4	Strong Active Learner	
		16NM1A0557	K5	Strong Visual Learner	
12	James Maxwell (L)	16NM1A0562	L1-Leader	Strong Active Learner	Dynamic
		16NM1A0522	L2	Strong Visual Learner	
		16NM1A0553	L3	Strong Intuitive Learner	
		16NM1A0511	L4	Strong Active Learner	
		16NM1A0558	L5	Strong Visual Learner	
		16NM1A0560	L6	Strong Visual Learner	

Table B.5.5.5: Formation of JIGSAW Home Groups (Heterogeneous Groups)

Formation of EXPERT groups (Homogeneous)

Students separated from their "HOME" groups and formed new group with the other students who are responsible for preparing the same topic. This group is called “EXPERT” group. These group members are responsible to make other students understand the topic. These

groups by default becomes Homogeneous in their abilities. The group members make plans about how they can teach the subject content to their friends and prepare a report. Afterwards, they turn back to their respective "HOME" groups and share their acquired knowledge with colleagues with the help of the reports they have prepared. EXPERT groups are formed by picking one –one member from each HOME group. Expert group size is 6 and hence 10 groups are formed. EXPERT groups EG1, EG2, EG3, EG4, EG5, EG6, EG7, EG8, EG9 and EG10 are shown in Table B.5.5.6.

Sl. No.	Expert Group Name	Expert Group Members
1	EG1	A1, B1, C1, D1, E1, F1: HOME Group Leaders
2	EG2	A2, B2, C2, D2, E2, F2: HOME groups members
3	EG3	A3, B3, C3, D3, E3, F3 - do-
4	EG4	A4, B4, C4, D4, E4, F4 - do-
5	EG5	A5, B5, C5, D5, E5, F5 - do-
6	EG6	G1, H1, I1, J1, K1, L1 : HOME Group Leaders
7	EG7	G2, H2, I2, J2, K2, L2 : HOME group members
8	EG8	G3, H3, I3, J3, K3, L3 - do-
9	EG9	G4, H4, I4, J4, K4, L4 - do-
10	EG10	G5, H5, I5, J5, K5, L5 - do-

Table B.5.5.6: List of Expert Groups (Homogeneous) and their Team Members

Process of Evaluation:

Both Formative assessment and **Summative assessment** activities are used to judge final products for completion, competency and/or demonstrated improvement.

To evaluate the student two components are required namely Individual and group assessment.
We conducted Individual quizzes and group quizzes for all the 10 batches.
Evaluation by the instructor provides students with feedback on the understanding of content, concepts, and applications. We have conducted quiz exams for individuals and for each group separately. The grades are shown in the given Table B.5.5.7.

Significance of results & reflective critique:

At the end of activity, we asked the students to give their opinion about this activity. Students gave different kinds of answers saying that it is good, OK. But batch 3 & 4 team leaders they fully involved and enjoyed the activity. They reported that this activity is excellent, and we learnt a lot on our own. The students are posed three poll questions to students in order to determine their positive and negative views on cooperative learning environment and JIGSAW technique;

Question 1

What can you say about the aspects of JIGSAW practices which have positive effects on you?

Student responses: Out of 61 students great many reported that 'JIGSAW technique was very 'Instructive', 'Created interest on the subject', 'responded positively ', affected the interaction and cooperation in the classroom', and it was 'enjoyable'

Instructive: 35

Created interest on the subject: 52

Positive response: 54

Enjoyable: 48

Good interaction and Cooperation in class: 42

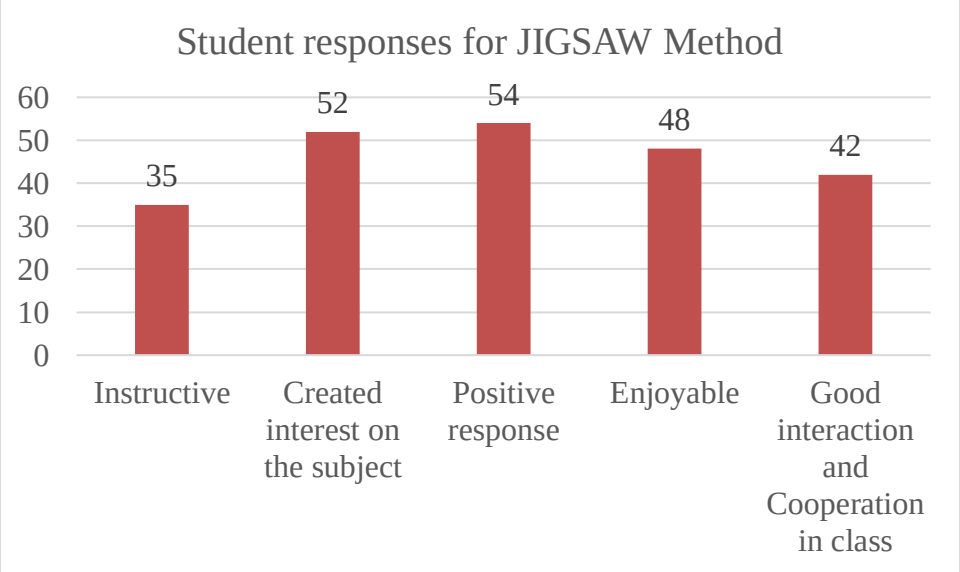


Figure 5.5.e: Student responses for JIGSAW method

Question 2

What can you say about the sides of the JIGSAW technique with negative effects in your opinion?

Student responses: Few students reported that JIGSAW technique was 'time-consuming', “Their friends with low achievement made them tired” and “The noise occurred during group works was disturbing”. Besides, 2 - 3 students expressed that it would be more effective if the topic was taught by the teacher instead of using this method.

After considering their feelings, we noticed that they are slow learners in my class and their native language is Telugu (a local language)

Question 3

What are the changes you have observed after application of this technique?

Most students reported that this technique enhanced our learning capacity’, ‘it increased our self-confidence’, ‘provided peer interaction and cooperation’, ‘and they felt that we were more ‘active’, ‘learned a lot on our own’.

Team No	JIGSAW Team	Home Group Member ID	Formative Assessment		Summative Assessment		Final Score (50M)	Median Score :45
			Individual Observation (10M)	Group Observation (10M)	Individual Quiz (15M)	Group Quiz (15M)		Performed less than Median Score (Yes/No)
1	Albert Einstein (A)	A1- Leader	10	10	14	13	47	NO
		A2	8		14		44	NO
		A3	9		13		45	NO
		A4	8		15		46	NO
		A5	10		12		45	NO
2	Isaac Newton (B)	B1-Leader	10	8	15	15	48	NO
		B2	9		12		44	YES
		B3	8		13		44	YES
		B4	7		14		44	YES
		B5	6		13		42	YES
3	Stephen Hawking (C)	C1-Leader	9	9	15	14	47	NO
		C2	7		12		42	YES
		C3	9		14		46	NO
		C4	10		13		46	NO
		C5	8		15		46	NO
4	Niels Bohr (D)	D1	10	10	15	13	48	NO
		D2	9		14		46	NO
		D3	8		15		46	NO
		D4	10		14		47	NO
		D5	10		15		48	NO

5	Faraday (E)	E1-Leader	10	9	15	12	46	NO
		E2	8		14		43	YES
		E3	9		13		43	YES
		E4	9		12		42	YES
		E5	8		14		43	YES
6	Galileo (F)	F1-Leader	9	9	15	15	48	NO
		F2	8		14		46	NO
		F3	7		13		44	YES
		F4	9		15		48	NO
		F5	10		12		46	NO
7	Thomas Edison (G)	G1-Leader	10	8	14	14	46	NO
		G2	9		13		44	YES
		G3	7		12		41	YES
		G4	8		13		43	YES
		G5	9		15		46	NO
8	Graham Bell (H)	H1-Leader	10	8	14	13	45	NO
		H2	8		15		44	YES
		H3	9		13		43	YES
		H4	7		14		42	YES
		H5	6		12		39	YES
9	Charles Darwin (I)	I1-Leader	8	10	14	12	44	YES
		I2	9		15		46	NO
		I3	10		13		45	NO
		I4	9		12		43	YES
		I5	8		11		41	YES
10	Archimedes	J1-Leader	8	10	12	15	45	NO

	(J)	J2	9		15		49	NO
		J3	10		14		49	NO
		J4	9		13		47	NO
		J5	7		14		46	NO
11	Rutherford (K)	K1-Leader	9	8	12	14	43	YES
		K2	8		15		45	NO
		K3	10		13		45	NO
		K4	9		14		45	NO
		K5	6		13		41	YES
12	James Maxwell (L)	L1-Leader	10	9	12	14	45	NO
		L2	8		13		44	YES
		L3	9		14		46	NO
		L4	7		15		45	NO
		L5	6		14		43	YES

Table B.5.5.7: Assessment sheet for JIGSAW activity.

3. Student Teams Achievement Division (STAD)

In Student Teams-Achievement Divisions (STAD), students are assigned to four-member learning teams that are mixed in performance level and ethnicity. The teacher presents a lesson, and then students work within their teams to make sure that all team members have mastered the lesson.

Goals of the strategy:

- Students work together in achieving its objectives by upholding the norms of the group.
- Actively assist and motivate students to succeed shared passion.
- Active role as a peer tutor to further enhance the success of the group.
- Interaction among students with increasing their ability to argue.

Outcomes:

- Demonstrate pros and cons of collaborating activity
- Develop individual and team work to solve given task in creating packages in java
- Apply their own ideas and thoughts during team discussion during deadlock

Implementation:

The STAD activity implemented for

Course	: Java Programming
Class	: II CSE C, II SEM
Academic Year	: 2017-18
Topic	: Applet life cycle
Activity Chosen	: Student Teams Achievement Division (STAD) - Collaborative

- Interaction session to present the content
- Make teams based on one criterion
- Teams work together to solve the given task
- Educator conducts individual quiz and team quiz
- Determine team average and each peer improvement scores

Time schedule:

- Interaction session by educator : 50 min (1 session)
- Making Teams, Sources of information : 50 min (1 session)
- Activity (3 sessions)

  Collaborative learning- : 50 min (1 session)

  (Characteristics of radio receivers)

  Individual Quiz : 50 min (1 session)

  Group Quiz : 50 min (1 session)

  Total sessions : 05

Initially, As an Instructor provides brief idea about the STAD activity to achieve better results. One session of 50 min was allocated for this interaction session. The outcomes of the activity will be communicated to all the students clearly. Along with the activity, the basics involved in the tasks assigned were also discussed as per the following schedule.

- The importance of Applets : 10 min
- Applet structure : 10 min
- Applet life cycle : 10 min
- Awareness about the STAD activity : 10 min
- The objectives of the activity : 10 min

Assessment

S.No	Team ID	Member ID	Roll No	Individual (W1: 1)		Collective (W2:3)		Score	Median Sore (25.5)	Important reason for team result
				Formative-Observation (A: 3 M)	Summative-Individual Quiz (B: 3 M)	Formative – Observation (C: 3M)	Summative – Group Quiz (D: 5M)	W1A+W1B + W2C+W2D (30 M)	Is less than Median Score	

Significance of results & reflective critique:

1. Students actively participated in developing applets in Java.
2. Communication skills are improved
3. Some students' confidence level while sharing the information about the Java programming in the class is improved.

4. Think Pair Share Activity (TPS)

Think-Pair-Share (TPS) is a collaborative learning strategy where students work together to solve problems or answer a question about assigned reading. This technique requires students to think individually about the topic or answer a question; and share ideas with colleague students. Discussing responses with peers serves to maximize participation, direct attention, and engage students in reading comprehension. The three phases in TPS are structured as

Think - the instructor poses a question, to which students individually write their answers,

Pair - students work on a well-defined task with their neighbor(s), and

Share - students engage in a class-wide discussion, sharing their answers and reasoning, and debating alternate solutions.

Goals of the Think Pair Share:

- To activate student's prior knowledge
- To enhance oral communication skills
- To make students active learners

Outcomes:

- Identify various feasible solutions for the given problem
- Summarize the concepts learnt from digital media
- Demonstrate the findings effectively with other peers and criticize the others conclusions.

Implementation: The implementation of a Think Pair Strategy

Course : Java Programming

Class : II CSE A, II SEM

Academic Year : 2017-18

Topic : Reading data from files and writing data to files

Activity Chosen : Think Pair Share - Collaborative

Think phase: The instructor posed a question, such as "Write a Program to Reading data from files and writing data to files in java". The students worked individually on the task, for about ten minutes.

Pair phase: The instructor gave a task related to the Think phase, such as check your neighbor's solution, or work with your neighbour to write the detailed code for the given problem. The

students worked with one of their neighbours to complete the task, in five to ten minutes. The instructor walked along the aisles, encouraging discussion and answering queries.

Share phase. The instructor facilitated a class-wide discussion related to the tasks in the Think and Pair phases. Students' responses in the Think and Pair phases formed an important part of the discussion in this phase.

Assessment

The students took a survey about their class participation and confidence at the beginning and at the end of the activity. The consolidated survey report is as shown below.

S. No	Description	Pre activity survey						Post activity survey					
		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	I enjoy sharing my thoughts and observations during Java programming class discussion	12	16	14	13	5	1	5	8	9	15	14	10
2	I feel confident in my abilities in Java programming	4	6	22	22	4	3	3	4	17	16	10	11
3	I feel confident in my ability to contribute to concept discussion in class	4	13	12	12	16	4	2	6	11	14	16	12
4	I often participate in class discussion in Java programming class	2	5	11	13	25	5	0	6	8	13	19	15
5	I am comfortable in contributing to class discussion in Java programming class	5	6	18	16	12	4	3	5	8	18	16	11

Table B.5.5.8: Survey report for Think Pair Share Activity

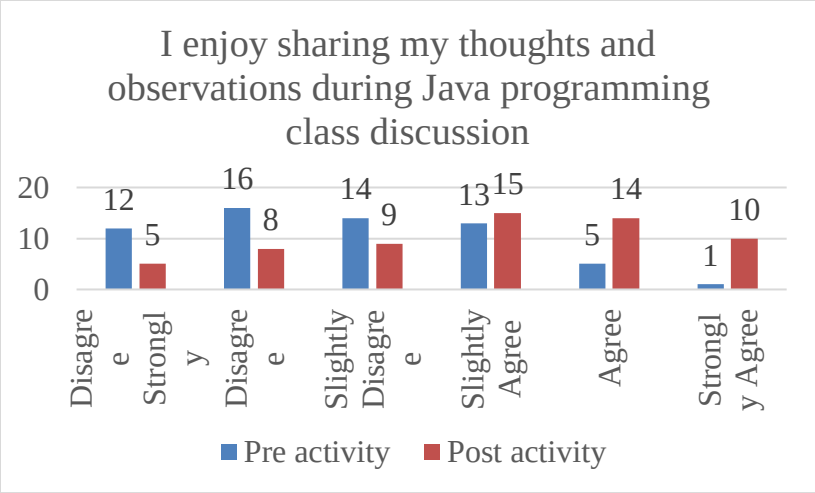


Figure 5.5.f: Survey parameter 1

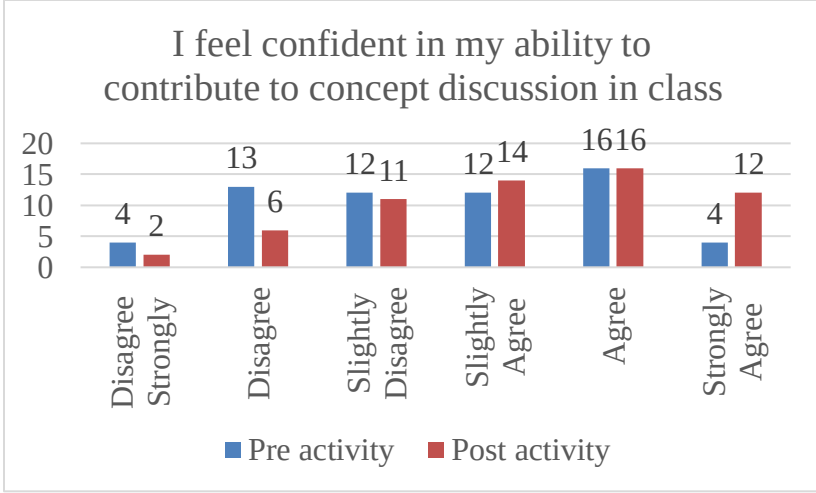


Figure 5.5.g: Survey parameter 3

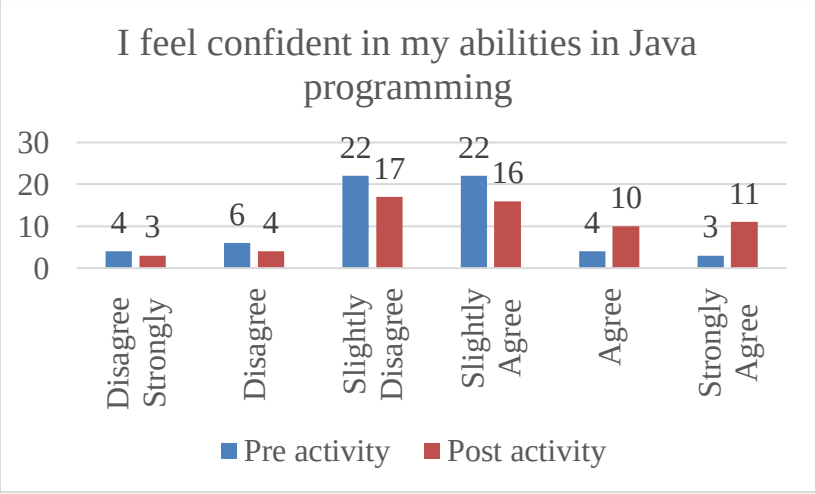


Figure 5.5.h: Survey parameter 2

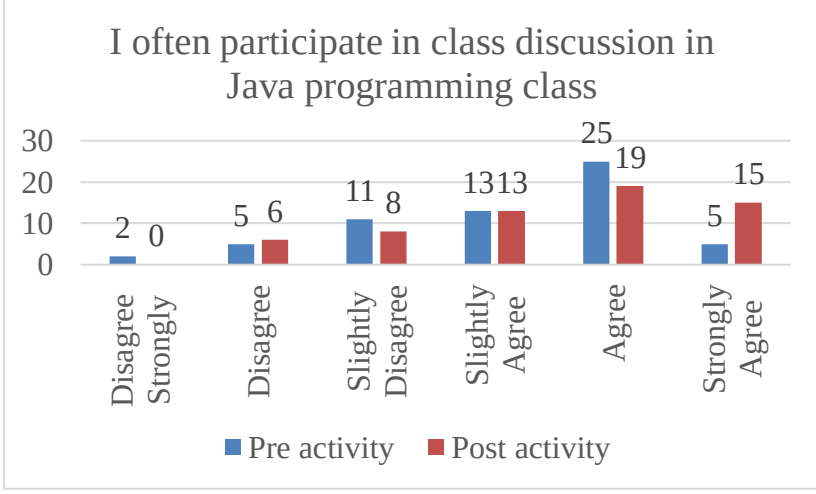


Figure 5.5.i: Survey parameter 4

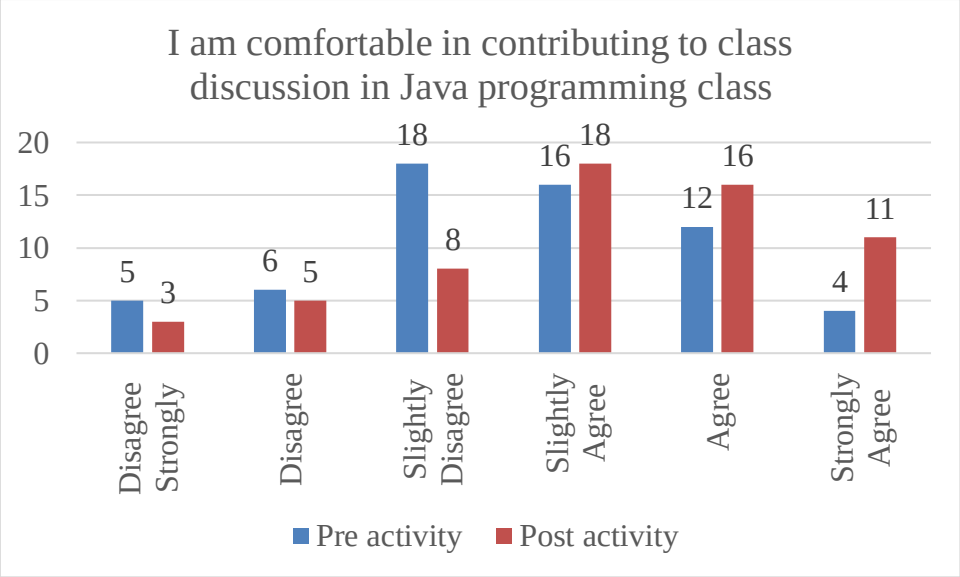


Figure 5.5.j: Survey Parameter 4

Based on the survey report obtained for pre activity and post activity, the comparison of each parameter is shown in Figures 5.5.f –5.5.j.

Significance of results & reflective critique:

1. The number if students who enjoyed the class is increased
2. Most of the students agreed that they are confident in contributing for the class room discussion
3. Students learning ability increased
4. Students shown interest to participate in classroom discussion often
5. Students felt comfortable during classroom activities

5. Open Book Examination (OBE)

An "Open Book Examination" is that in which students are allowed to refer to class notes and summaries, textbooks, or other approved material while answering questions. Open book examination creates an enriched environment, offering the opportunity to better understanding

2nd B.Tech (2016 admitted batch) students were assessed for Closed Book Sitting and Open Book Sitting for the course ***Java Programming***. The test population consists of 61 students from II Year, semester II.

Assessment Method:

The assessment method used for the proposed study consist of on-line multiple choice questions, comprising 50 questions. Test questions are set in concurrence with Blooms

Taxonomy levels. The test was administered under similar conditions for Closed Book Examination (CBE) and Open Book Examination (OBE).

The students first completed the assessment in closed book sitting, and then approximately one week later, completed the same assignment in the open book sitting. A time limit of 60 minutes was set for students, with in which they were expected to complete the test. After the first test the students were told that they would be asked the same set of questions, with full access to any books they may require.

Test results of both the examinations were collected and statistical analysis is performed. The analyzed data is given below

	Closed Book	Open Book
Minimum mark	22	30
Maximum Mark	47	48
Mean value	33.18	39.85
Standard Deviation	5.58	5.91
No. of students completed test	62	62

Table B.5.5.9: Open book and closed book analyzed data

Closed Book analysis:

The minimum and maximum scores for the closed book sitting were 44% and 94% respectively, with a mean of 66.36%

Open Book Sitting

The minimum and maximum scores for the closed book sitting were 60% and 96% respectively, with a mean of 79.70%. There is an increase of 13.34% mean value and standard deviation of both methods is almost same.

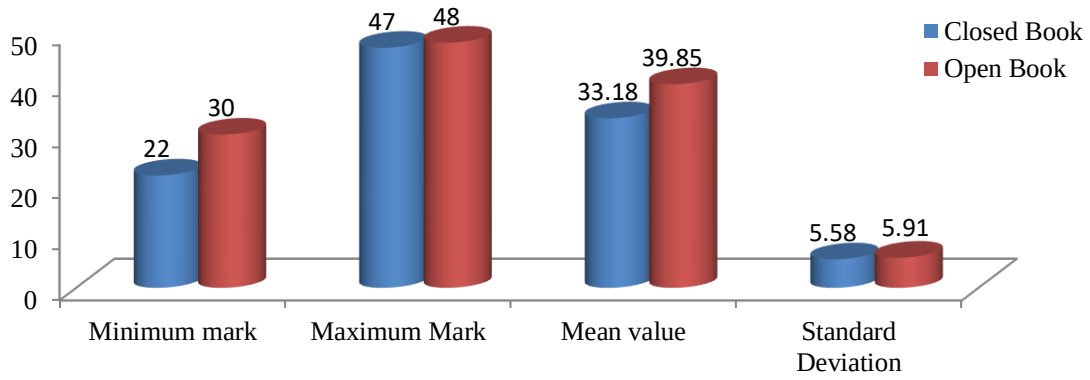


Figure 5.5.k: Comparison of marks of all students who completed the assessments both OBE and CBE

Time limit:

The time taken by students to complete the open book assessment, over and above the time limit of 60 minutes was recorded. However, we allowed some students to continue examination beyond time limit also. 54 students completed the test within the time limit, while 8 students required additional time to complete the assessment.

	Completed in < 60 min	Completed in > 60 min	
	Marks	Marks	Extra time in min
Minimum Mark	29	30	5
Maximum mark	48	42	14
Mean Value	40.38	35.63	9.13
Standard deviation	5.91	4.10	2.85
No, of students completed test	54	8	8

Table B.5.5.10: The influence of time on students marks in the open book sitting

Students completed in < 60 min:

The minimum and maximum scores for the closed book sitting were 58% and 98% respectively, with a mean of 80.76%

Students exceeded 60 min:

The minimum and maximum scores for the closed book sitting were 60% and 84% respectively, with a mean of 71.26%

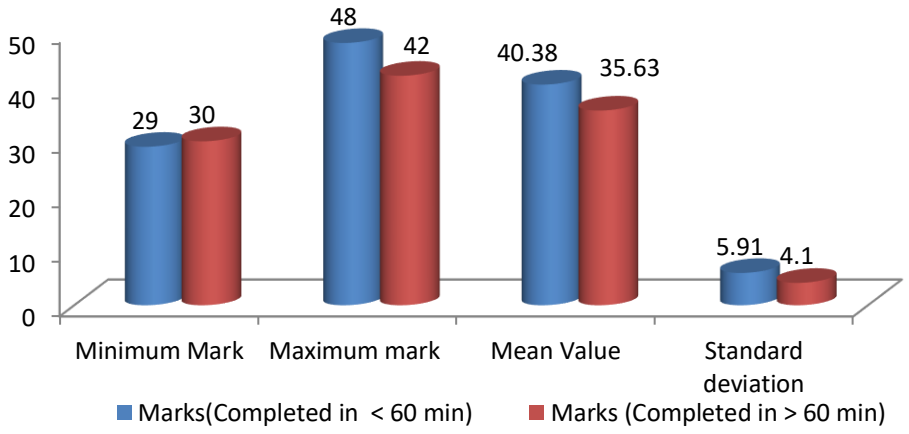


Figure 5.5.l: Comparison of open book sitting marks of students who completed in < 60 min time and > 60 min.

Significance of results & reflective critique:

- There is a significant improvement in minimum mark and mean value Open book Examination. The increase of 13.34% in mean for open book test shows that the average mark of most of the students is increased, which it indicates that there is an improvement in students' performance in OBE sitting when considered average marks.
- However, the data reveals that there is not much improvement in the marks of weaker students in OBE sitting.
- The maximum mark in OBE and CBE sittings is almost same and only one mark difference (48 and 47 marks respectively) for intelligent student whether it is open book or closed book examination is immaterial.
- It is also interesting to note that students spending more than 60 minutes did not show any significant improvement in their marks.
- There not much deviations in standard deviation in all the 4 cases.

6. Technology Enabled Learning

21st century revolution in the ICT obliges the teachers and students to keep themselves abreast of the-state-of-the-art of technological development. The deployment of them in teaching-learning process is imperative, since the technology is embedded in almost all walks of our life. ICT encapsulates IT and other media such as audio, video, pictures, animation, graphics, internet and other software packages. The use of technology to teach students has gained attention in recent past. The process of dissemination of information and elicit response from students is a huge task. We adopted the following three technologies used to teach students.

Moodles:

- We organize all the material and syllabi of the course, assignments, readings and online quizzes etc.
- Outcome: Material is easily accessible to all the students and it reaches to all including absentees.

Google Apps:

- Sharing lecture notes and PPT through Google drive
- Outcome: It is a collaborative platform for students in which students and instructors share their material online.

Cliquers and Smart Phones:

- Provides easy way to serve the students during the class. It is a good method for instant polling, which can quickly assess student understandings and helps instructors to change teaching modalities.

ICT Technology Classroom:

- ICTs are making dynamic changes in society. They are influencing all aspects of our life. Because ICTs provide both students and teachers with more opportunities in adapting learning and teaching to individual needs, society is forcing schools aptly respond to this technical innovation
- Offer the opportunity for more students-centered teaching; provide greater opportunity for teacher-to-teacher and student-to-student communication and collaboration.
- Give greater exposure to vocational and workforce skills for students, provide opportunities for multiple technologies delivered by teachers,

Dissemination of Content through Course Websites*:*

The faculty members are self-motivated to create course websites to make available of the course content like syllabus, course delivery plan, lecture notes of all units and previous question papers. This facility helps the students to learn more in less time. As an educator we need to be very particular in inducting content to the learners in short span of time.

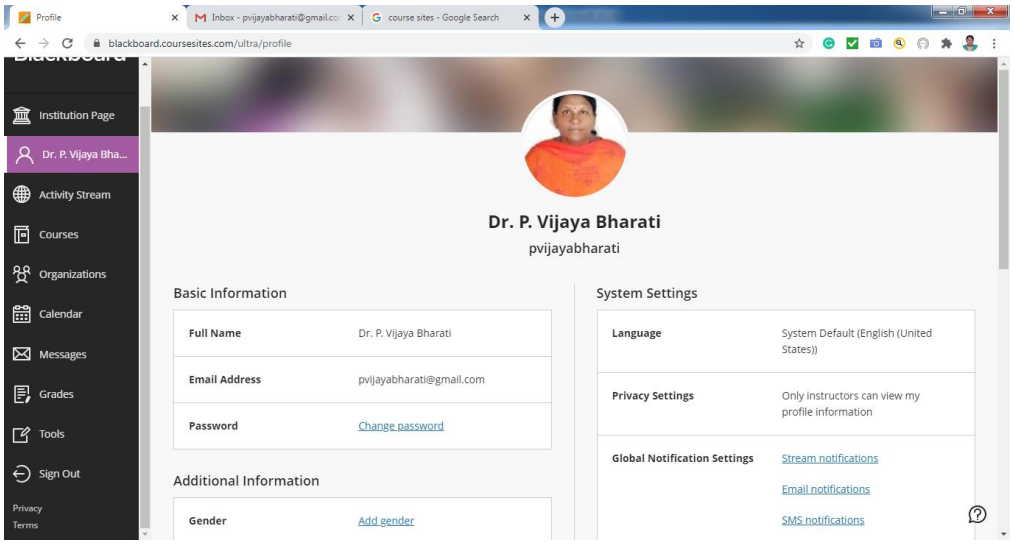


Figure 5.5.m: Course website https://blackboard.coursesites.com/ultra/profile

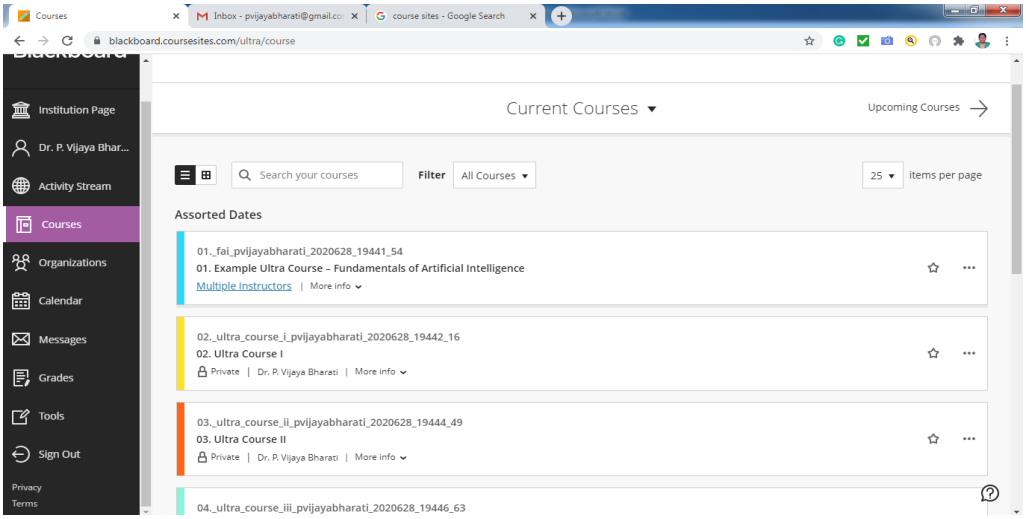


Figure 5.5.n: Available of course content in course website

The Department of CSE also hosts a websitehttps://sites.google.com/view/viewcse/ in which the data related to all courses of all semesters is maintained. It has syllabus, Lecture plans, Unit materials, Assignment questions, Mid question papers after the exam, University previous question papers and end results. All the students from department of CSE can access it.

Use of Learning Management Tools

A massive open online course (MOOCs) courses aims at providing high quality study materials to student/faculty community worldwide. The MOOC courses offered by Coursera, edX , NPTEL are of high standards. The students are clustered in a group based on their MOOC course interest and the provider. Students are encouraged to complete a MOOC certification to acquire in depth knowledge. The response of students to MOOC course was minimal.

The department of CSE uses LMS tools such as Canvas, MOOCs, Moodles, Virtual Labs etc., to make the students submit their assignments, learn online and implement the experiments to gain knowledge about the concepts learnt in the class. Recently, Google Classroom, Webex, etc. have been utilized by the faculty to teach the courses

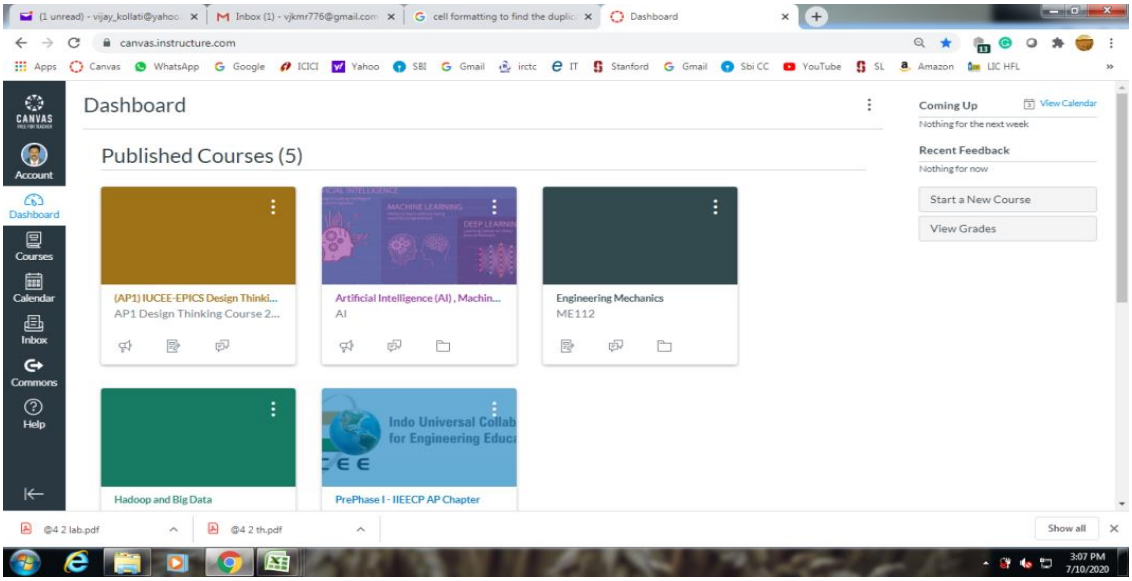


Figure 5.5.o: Content delivery using canvas LMS tool

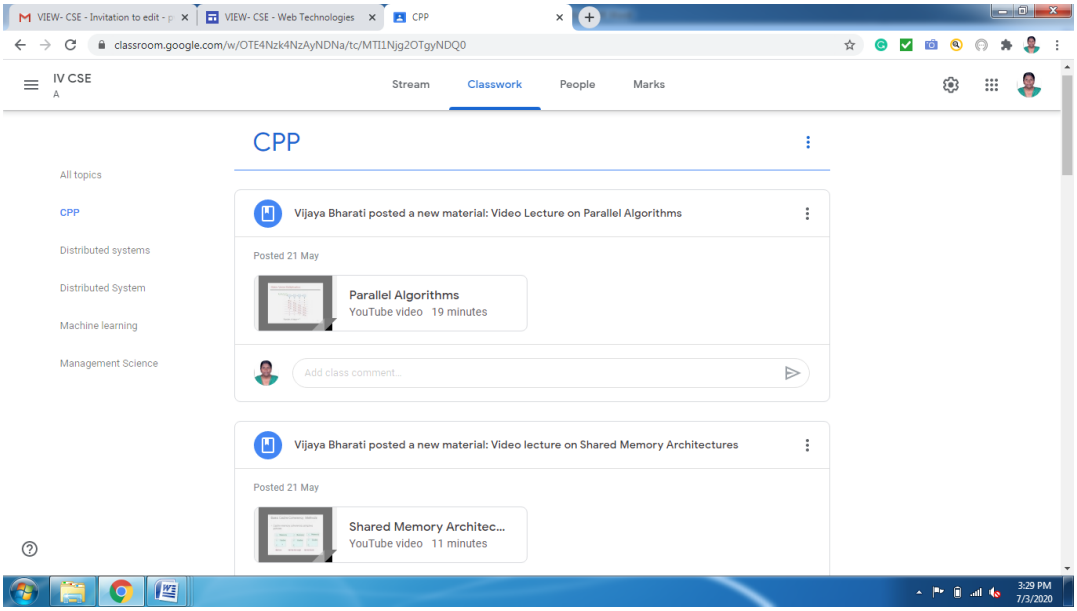


Figure 5.5.p: Content delivery using Google classroom

Technology enabled learning was evaluated by asking assignments and quizzes from MOOCs materials. Furthermore, extra credits were given to students who completed MOOCs courses with good grades. Google classroom service offered by Google is effective in achieving technology enabled learning. Google Classroom combines the services offered by Google Drive for storage, Google Docs, Sheets and Slides for writing, Gmail for electronic mail and Google Calendar for maintaining deadlines. An exclusive folder is created for each class in the corresponding user's drive, where the student can submit their work for teacher's grading. Sharing of files, conducting assignments quizzes, grading/commenting assignments w.r.t to

prompt sub- mission and content becomes easy with Google classroom. Mobile version of Google classroom helps in quick access. Teachers can monitor student's progress and can assign grades and provide comments for the assignments.

Significance of results & reflective critique:

- Offer the opportunity for more students-centered teaching,
- Provide greater opportunity for teacher-to-teacher and student-to-student communication and collaboration,
- Give greater exposure to vocational and workforce skills for students,
- Provide opportunities for multiple technologies delivered by teachers,
- Create greater enthusiasm for learning amongst students,
- Provide teachers with new sources of information and knowledge,
- Prepare learners for the real world,
- Provide distance learners country-wide with online educational materials
- Provide learners with additional resources to assist resource-based learning. Furthermore, the document states ICTs to cover all the technologies used for holding and communicating information and their use specifically in education with overall policy goals of:

II. Instructional methods assessment and their Evaluation

The Innovative Teaching Learning strategies implemented for the course "Java Programming" is presented here to study their impact. This course consists of six Course Outcomes (COs) as shown in Table B.5.5.11.

Course Name: **Java Programming**; Year of Study: **2017-18**; Year/Sem: **II/II**	
CO1	Generalize the various concepts and principles of structured and object-oriented programming languages (K2).
CO2	Construct the classes, objects and constructors in java (K3)
CO3	Apply object-oriented constructs and exception handling in JAVA applications (K3)
CO4	Discuss multi-threading concepts and file accessing mechanisms in JAVA (K3).
CO5	Make use of applets and write sample programs with event handling in JAVA. (K3).
CO6	Develop interfaces using AWT and handle different kind of events. (K3)

Table B.5.5.11: Course Outcomes for Signals & Systems

For the attainment of each course outcome, one teaching learning strategy is implemented along with the regular aids as shown in below Table B.5.5.12.

Course outcome	Innovative Teaching strategy
CO1	JIGSAW (Collaborative)
CO2	Conventional Teaching
CO3	Flipped Classroom
CO4	Think Pair Share (TPS)
CO5	STAD (Collaborative)
CO6	Technology Enabled Learning

Table B.5.5.12: Innovative practices and their CO mapping

All the students exercise Felder-Silverman questionnaire to know their learning style. The following table shows distribution of students for each learning style. The course considered for the analysis is taught for II CSE-II Sem, A- Section of strength 61 students

Learning Styles	Number of students	Percentage of students (%)
Active	16	26.67
Reflective	3	5.00
Sensing	3	5.00
Intuitive	3	5.00
Visual	21	35.00
Verbal	2	3.33
Sequential	7	11.67
Global	6	10.00

Table B.5.5.13: Percentage of student distribution based on their learning styles

Course end survey (student feedback) is collected based on the parameters listed in the Table B.5.5.14 in a 3-point scale (Good-3M; Satisfactory-2M; Avergage-1M). The identity of the students was not revealed to the teacher, so that students are independent to express their opinions on the teaching learning process

Feedback Questions	Average Mark
Satisfaction of syllabus coverage (3)	2.70
Technical Knowledge of the Teacher (3)	2.64
Audibility and Interaction with students (3)	2.58
Achievement of COs defined (3)	2.76
Understanding of the course (On average) (3)	2.40
Effectiveness of lecture delivery –	2.76

Flipped classroom/JIGSAW/STAD/TPS (3)	
Efficiency of assessment methods (3)	2.64
Overall Average Mark	2.64
Percentage	88%

Table B.5.5.14: Consolidated report of course end survey

From the feedback scores obtained course end survey in Table B.5.5.14, it is evident that students expressed high degree of satisfaction for the parameter "Effectiveness of lecture delivery -Flipped classroom/JIGSAW/STAD/TPS" with a score of 2.76. This parameter is directly correlated to the innovations employed in teaching learning paradigm

The process of Course attainment consists of direct attainment (80%) and indirect attainment (20%). Direct attainment is evaluated from mid examination marks (30 Marks). The mid examination marks comprise of descriptive exam (15 Marks), objective exam (10 Marks) and assignment (5 marks). First mid examination covers three COs: CO1, CO2 & CO3 and Second mid examination covers remaining three COs: CO4, CO5 & CO6. Each CO is evaluated for 10 Marks. The analysis of teaching learning methodologies is presented in Table B.5.5.15.

Course Outcome	Innovative Practice	Learning Style	Number of students	Students with attainment above 60%	Percentage of students with attainment above 60%
CO1	JIGSAW (Collaborative)	Active	16	11	68.75
		Reflective	3	2	66.67
		Sensing	3	2	66.67
		Intuitive	3	3	100.00
		Visual	21	16	76.19
		Verbal	2	2	100.00
		Sequential	7	5	71.43
		Global	6	3	50.00
CO2	Conventional Teaching	Active	16	13	81.25
		Reflective	3	2	66.67
		Sensing	3	1	33.33
		Intuitive	3	1	33.33
		Visual	21	14	66.67
		Verbal	2	1	50.00
		Sequential	7	4	57.14
		Global	6	4	66.67
CO3	Flipped Classroom	Active	16	9	56.25

		Reflective	3	2	66.67
		Sensing	3	2	66.67
		Intuitive	3	3	100.00
		Visual	21	10	47.62
		Verbal	2	2	100.00
		Sequential	7	5	71.43
		Global	6	5	83.33
CO4	Think Pair Share (TPS)	Active	16	13	81.25
		Reflective	3	1	33.33
		Sensing	3	3	100.00
		Intuitive	3	3	100.00
		Visual	21	15	71.43
		Verbal	2	2	100.00
		Sequential	7	4	57.14
		Global	6	4	66.67
CO5	STAD (Collaborative Strategy)	Active	16	14	87.50
		Reflective	3	2	66.67
		Sensing	3	1	33.33
		Intuitive	3	2	66.67
		Visual	21	18	85.71
		Verbal	2	1	50.00
		Sequential	7	4	57.14
		Global	6	5	83.33
CO6	Technology Enabled Learning	Active	16	14	87.50
		Reflective	3	3	100.00
		Sensing	3	3	100.00
		Intuitive	3	3	100.00
		Visual	21	18	85.71
		Verbal	2	2	100.00
		Sequential	7	5	71.43
		Global	6	4	66.67

Table B.5.5.15: Analysis of course attainments for different learning strategies

From the Table B.5.5.15, it is inferred that all students of learning styles Active/Reflective, Sensing/ Intuitive, Visual / Verbal, Sequential/ Global have shown better performance in all the innovative teaching strategies. Active learners performed well even in conventional teaching. Verbal and Sequential learners' performance is phenomenal in active learning strategies. Global learners especially preferred collaborative learning strategies compared to conventional and technology enabled learning.

From above Table, it is also clear that students performed high degree of performance in JIGSAW, STAD and Flipped Classroom learning strategies. Hence, the attainments of CO1, CO5 and CO3 are better than remaining COs.

From this analysis, we can conclude that innovative teaching learning strategies obviously improve the performance of students of all learning styles. The innovations by our faculty in Teaching Learning strategies are made available in institute website for transparency, peer review and critique. This practice will help to other scholars to reproduce and develop further.

5.6. Faculty as participants in Faculty development/training activities/STTPs (15)

- *A Faculty scores maximum five points for participation*
- *Participation in 2 to 5 days Faculty development program: 3 Points*
- *Participation>5 days Faculty development program: 5 points*

Vignan's Institute of Engineering for Women encourages faculties to improve their latest technical skills on par with industry by sponsoring registration fees, TA and DA to participate in training programs. After the successful completion of the program the faculty is supposed to submit a one-page report and also should share their knowledge with colleagues. We do organize internal FDPs for the benefit of faculty in association with NITTTR, NIT Warangal etc.

S. No	Name of Faculty	Max 5 per Faculty		
		2018-19	2017-18	2016-17
1.	Dr. K. Vijaya Kumar	5	5	5
2.	Dr.T.Madhusudhan Rao	-	5	5
3.	Dr.N.Tirupati Rao	-	5	5
4.	Mrs. P. Vijaya Bharati	5	5	-
5.	Mr. S. Ram Prasad Reddy	5	5	-
6.	Mr. L. Bhupati Rao	3	5	3
7.	Mr. A.N Suresh	-	5	5
8.	Ms. T. Padmavathy	-	5	3
9.	Mrs. R. Pravallika	5	5	5
10.	Mr. G.Vinay Reddy	-	5	5
11.	Mr. K. Madhuri	5	5	3
12.	Mr. P. Praveen Kumar	5	5	-
13.	Mr. B.Venkatesh	-	5	5
14.	Mr.Ch. V Bhikshapathi	5	5	-
15.	Mrs. G. Sandhya	5	5	-
16.	Mrs. J. Aruna Devi	-	5	-

17.	Mrs. Y. Vineela Sravya	5	5	5
18.	Mr. I. Raju	5	5	5
19.	Mr. V. Uma Shanker Rao	-	5	5
20.	Mrs. D. Kamal Kumari	5	5	5
21.	Mrs. M. Mamatha Laxmi	5	5	-
22.	Mr. N. K. Santosh	-	5	5
23.	Mr. B. A. Ganesh	5	5	3
24.	Mr. D. LovaRaju	-	5	-
25.	Ms. K.Narasamma	-	-	5
26.	Ms. D. Chandrika	-	5	5
27.	Mrs.Ch. Ramya	-	5	-
28.	Mrs. G. Pavani latha	5	5	-
29.	Mr. K. Mariya babu	-	5	-
30.	Mrs. N. Sowjanya Kumari	5	3	-
31.	Mr. T. Hari babu	5	5	-
32.	Mr. D. Rajendra Dev	5	-	-
33.	Mrs. K. Deepthi Krishna	5	-	-
34.	Mr. R. Ravi	5	-	-
35.	Mrs. V. Sree Lahari	-	3	3
	Sum	98	151	84
	RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1	32	41	41
	Assessment = 3*(sum/0.5RF) (Marks limited to 15)	18.37	22.09	12.29
Average assessment over three years (Marks limited to 15) = 17.58 = **15**				

Table B.5.6: Faculty participation in FDPs/Training activities/STTPs etc.

5.7 Research and Development (30)

5.7.1 Academic Research (10)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

- *Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)*
- *Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (4)*

A. Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6)

Research is the foundation for knowledge which makes possible with innovations and applications providing wider benefit. This also adds to the stock of global knowledge and is a

source of new ideas, techniques, innovation, and methods, across a wide range of disciplinary areas. Faculty members at teaching intensive institutions can enhance learning experiences for students while benefiting from a productive research agenda.

Vignan's Institute of Engineering for Women (VIEW) encourages the students and faculties towards Research and Development activities by providing various benefits like financial support for doing PhD work, access to reputed National and International journals in digital library, provides academic leaves, education leave etc. The Management provides financial support like registration fee, accommodation, travel etc., for participating in Conferences, inter-institute events. In addition, the college is having R&D policy where the college management provides honorarium to faculties who published articles in reputed national and international SCIE/ESCI/SCI / Scopus journals.

	Scopus Indexed	UGC Indexed	Book Chapters	Total
CAY (2019-20)	16	35	1	52
CAYm1 (2018-19)	4	4	--	8
CAYm2 (2017-18)	5	2	--	7
Total	25	41	1	67

Table B.5.7.1.a: List of Research Publications

List of Publications: CAY (2019-20) Scopus Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	R. Pravallika, Y .Vineela Sravya	Classification of gender by voice recognition using machine learning algorithms.	Journal of critical reviews	June 2020	Volume 7, Issue 9 2394-5125
2	R. Ravi, Gubbala Sandhya	Apache Hadoop for processing image files using sequence file.	TEST Engineering & Management	Feb 2020	Volume 82, Issue 2, 0193-4120
3	Gubbala Sandhya	Application achievement of K-means algorithm among Apache spark and map reduce	TEST Engineering & Management	Feb 2020	Volume 82, Issue 2, 0193-4120
4	Dr. K. Vijaya Kumar Imandi Raju, R. Pravallika	Performance Evaluation of Machine learning Algorithms for disease prediction.	International Journal of Advanced Science and Technology	June 2020	Volume 29, Issue 7, 2005-4238
5	Dr. K. Vijaya Kumar Y. VineelaSravya, J. Himabindu	Phishing URLs Detection System using Lexical Feature Analysis.	International Journal of Advanced Science and Technology	June 2020	Volume 29, Issue 7, 2005-4238
6	Dr.K.Vijaya Kumar	Diabetic Retinopathy Detection from Retinal Images using Machine Learning Techniques.	International Journal of Advanced Science and Technology	May 2020	Volume 29, Issue 5, 2005-4238
7	Prof. A. Sesha Rao, Imandi Raju	Malicious E-Mail Detection using Artificial Neural Networks.	TEST Engineering & Management	March 2020	Volume 83, Issue 3, 0193-4120
8	D Rajendra Dev, Rita Roy	A Study of Artificial Emotional Intelligence for Human-robot Interaction.	Journal of Critical Reviews	June 2020	Volume 7, Issue 15, 2394-5125
9	Rita Roy, D Rajendra Dev	Socially Intelligent Robots: Evolution of Human- Computer interaction.	Journal of Critical Reviews	June 2020	Volume 7, Issue 15, 2394-5125
10	Dr.K.Vijaya Kumar	An Integrated Way for Teaching Hadoop & Big Data Analytics Course. DOI:*10.35940/ijrte.B1739.078219*	International Journal of Recent Technology and Engineering (IJRTE)	July 2019	Volume 8, Issue 2, 2277-3878

11	Dr.K.Vijaya Kumar	An Unsupervised Deep Learning Methods for Fabricating Text Mining Analysis based on Topic Modeling and Document Clustering Techniques.	International Journal on Emerging Technologies	Feb 2019	Volume 10, 0975-8364
12	Dr.K.Vijaya Kumar	Parallel Computation Performing kernel-Based Clustering Algorithm Using Particle Swarm Optimization For The Big Data Analytics. DOI: *10.35940/ijrte.B1740.078219*	International Journal of Recent Technology and Engineering (IJRTE)	July 2019	Volume 8, Issue 2, 2277-3878
13	Dr. K. Vijaya Kumar	Text Mining with Apache Hadoop over different Hadoop Clusters Architectures. DOI:*10.35940/ijrte.B1866.078219*	International Journal of Recent Technology and Engineering (IJRTE)	July 2019	Volume 8, Issue 2, 2277-3878
14	Dr. K. Vijaya Kumar	Extended Optimization Procedures for Static List based Task Scheduling Algorithms for HeDCS. DOI: *10.35940/ijrte.B1003.0982S1119*	International Journal of Recent Technology and Engineering (IJRTE)	Sep 2019	Volume 8, Issue 2S11, 2277-3878
15	Dr. K. Vijaya Kumar	Transformation in the Teaching-Learning Process of Engineering Education.	TEST, Engineering and Management	Feb 2020	Volume 82, 0193 -4120
16	Dr. K. Vijaya Kumar	A Classification Model using improved Hybrid Genetic Particle Swarm Optimization Algorithm based on Separability-Correlation Measure	TEST, Engineering and Management	Feb 2020	Volume 82, 0193 – 4120

Table B.5.7.1.b: List of Scopus Indexed Publications 2019-20

Books / Book Chapters: CAY (2019-20)

Sl. No	Name of the Faculty	Title of The Book	Name of the chapter	Year of Publication	Chapter/ Edition	ISBN
1	Dr.P. Vijaya Bharati	Advanced Machine Vision Paradigms for Medical Image Analysis (Elsevier)	A Cognitive Perception on Content Based Image Retrieval using Advanced Soft Computing Paradigm.	3rd August 2020	Chapter 6/ 1st edition	9780128 192955

Table B.5.7.1.c: List of Book Chapters Publications 2019-20

List of Publications: CAY (2019-20) UGC Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	M Mamatha Laxmi	A Novel Steganographic Technique to Embed sst Encrypted Message Using Pglm.	Mukth Shabd Journal	May 2020	Volume 9, 2347-3150
2	D Rajendra Dev Rita Roy	Evolution of Human-Computer Interaction to Presume Human Disposition Feature in Human-Robot Social Communication DOI: *10.37896/jxu14.5/341*	Journal of Xidian University	May 2020	Volume 14, Issue 5, 1001-2400
3	D Rajendra Dev Rita Roy	Enthusiastic knowledge or man-made brainpower-Emotional Intelligence DOI:*10.37896/jxu14.5/342*	Journal of Xidian University	May 2020	Volume 14, Issue 5, 1001-2400
4	M Mamatha Laxmi	A Three Layer Privacy Preserving Storage Scheme for Providing Security	International Journal of Creative Research Thoughts	May 2020	Volume 8, 4320-28820
5	D Rajendra Dev	Age Estimation by Face Detection Using Convolution Neural Networks	Advanced Science Letters	May 2020	Volume 9, 1936-6612
6	Dr.P. Vijaya Bharati	An Efficient Transaction Memory Storage Management Model for Images	Mukt Shabd Journal	May 2020	Volume 9, 2347-3150
7	K Deepthi Krishna Yadav	Attendance System Based on Face Recognition	Mukt Shabd Journal	May 2020	Volume 9, 2347-3150
8	Rahimunnisa Shaik	Detection of Money Laundering in Online Social Networks	MuktShabd Journal	May 2020	Volume 9, 2349-3150
9	Aggala Maheswararao	Enhancing Advance Driver Assistance System by Detecting Weather Conditions Using Machine Learning	IJRAR	April 2020	Volume 7, Issue 2, 2349-5138
10	Dr.P. Vijaya Bharati	Distributed Metadata Management for Large Storage Systems Using	Parishodh Journal	May 2020	Volume 9, 2347-6648

		Hierarchical Bloom Filter Arrays			
11	Imandi Raju	Ensemble Clustering Using Dbscan and Hdbscan	Journal of Xi'an University of Architecture & Technology	June 2020	Volume 12, 1006-7930
12	Aggala Maheswararao	Fake News Detectionand Comparison Using Machine Learning Algorithms	IJRAR	April 2020	Volume 7, Issue 2, 2349-5138
13	Y. Vineela Sravya	Food Calorie Estimation and Auto Bill Generation for Grocery Products Using Yolo Objects Detection	Journal of Xi'an University Of Architecture & Technology [Jxat]	May 2020	Volume 12, 1006-7930
14	Dr.K.Vijaya Kumar	Health Monitoring System Using Rule Based Expert System	International Journal of Creative Research Thoughts (Ijcrt)	May 2020	Volume 8, Issue 5, 2320-2882
15	M Mamatha Laxmi	Hiding of Captcha in A Colour Image Using Fnp Algorithm	Mukth Shabd Journal	May 2020	Volume 9, 2347-3150
16	J.Hima bindu	Multimedia Content Protection System for Cloud Storage	International Journal of Research and Analytical Reviews	May 2020	Volume 7, 2349-5138
17	D Rajendra Dev	Object Match Swapping Detection of Facial Landmarks Using Local-Based Information	The International Journal of Analytical and Experimental Modal Analysis	April 2020	Volume 12, 0886-9367
18	Gubbala Sandhya	Offline Handwritten Character Recognition using Neural Networks	Mukt Shabd Journal	April 2020	Volume 9, 2347-3150
19	R.Pravallika	Pneumonia Detection By X-Ray Images Using Deep Learning Through CNN	Journal of Xian University of Architecture and Technology	May 2020	Volume 12, 1006-7930
20	R.Pravallika	Reducing The Routing Overhead In Secure Mobile Ad Hoc Networks	International Journal of Engineering Research & Technology (IJERT)	May 2020	Volume 9, 2276-0181
21	Imandi Raju	Redundancy Control Data -Driven	International Journal of	June	Volume 11,

		Approach For Cluster-Based Wireless Sensor Networks	Computer Science and Technology	2020	2229-4333
22	Rita Roy	Replinish Security Through Carp Technology	The International Journal of Analytical and Experimental Modal Analysis	April 2020	Volume 12, issue 4 0886-9367
23	R.Ravi	Retrieval of Featured Images Using Face Detection	Mukta Shabd	May 2020	Volume 9, 2347-3150
24	Rita Roy	Secure Key- Deduplication Using Convergent Key Encryption	Parishodh Journal	May 2020	Volume 9, 2347-6648
25	Y.Vineela Sravya	Sentiment Analysis on Gst Using Polarity Classification	International Research Journal of Engineering and Technology	May 2020	Volume 7, 2395-3157
26	R. Ravi	Smart Rendering News Article Reader	International Journal of Creative Research Thoughts	April 2020	Volume 8, 8723-2882
27	J.Hima bindu	Traffic Sign Detection Using Convolutional Neural Networks	International Journal of Computer Science and Technology	June 2020	Volume 11, 7222-4333
28	Guvvu Pavani Latha	Information Retrival On Document Streams Using Relevance Feedback Algorithm	International Journal of Computer Science and Technology	April 2020	Volume 7, Issue 4, 2395-0072
29	Guvvu Pavani Latha	Machine Learning Approach for Forecasting Crop Yield Based on Climatic Parameters	Jac: A Journal of Composition Theory	May 2020	Volume 8, issue 5, 0731-6755
30	B. Haritha Lakshmi	Crack Detection on Concrete Surfaces Using Image Processing	International Journal of Creative Research Thoughts	May 2020	Volume 8, 2320-2882
31	B. Haritha Lakshmi	A Secure Approach for Communication in Mobile Adhoc Networks	Advanced Science Letters	May 2020	Volume 26, 1936-6612
32	M.Mamatha Lakshmi, T.Padmavathi	Elliptical Curve Cryptography with Cuckoo Search Algorithm for Internet of Things Environments	International Journal of Recent Technology and Engineering (IJRTE)	July 2019	Volume 8, Issue 7, 2278-0181

33	Ms.Rita Roy	Retrieval of Featured Images using Face Detection	The International Journal of Analytical and Experimental Modal Analysis	April 2020	Volume 12, Issue 4
34	Rita Roy, D Rajendra Dev	Metamorphosis knowledge probing of guild data through chat bot using NLP	CIIT International Journal of Artificial Intelligent Systems and Machine Learning	July 2019	Volume 11, Issue 7
35	Rita Roy, D Rajendra Dev	Communication technology for users with specific learning incapacities	CIIT International Journal of Artificial Intelligent Systems and Machine Learning	July 2019	Volume 11, Issue 7

Table B.5.7.1d: List of UGC Indexed Publications in 2019-20

List of Publications: CAYm1 (2018-19) Scopus Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	Dr. K Vijaya Kumar	Text Mining with Hadoop: Enforcement of Document Clustering using Non-Negative Matrix Factorization KNMF	International Journal of Recent Technology and Engineering (IJRTE)	March 2019	Volume 8, Issue 1, 2277-3878
2	Dr. K Vijaya Kumar	Artificial Way of Characterizing unsupervised Data using Auto-Encoders With Deep Learning Cluster Analysis	International Journal of Recent Technology and Engineering (IJRTE)	April 2019	Volume 7, Issue-6S2, 2277-3878
3	Dr. K Vijaya Kumar	Text Mining with Hadoop: Document Clustering with TF_IDF and Measuring Distance Using Euclidean	Journal of Advanced Research in Dynamical & Control Systems	July 2018	Volume 10, Issue 14, 1943-023X
4	T. Hari Babu Raju Imandi	An Optimal Approach of Initial Centroid selection for Effective Clustering	International Journal of Innovative Technology and Exploring engineering,	March 2019	Volume 8, Issue 5, 2278-3075

Table B. 5.7.1.e: List of Scopus Indexed Publications in 2018-19

List of Publications: CAYm1 (2018-19) UGC Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	R. Pravallika, Y. Vineela Sravya	Deep Neural Networks Based Disease Detection in Family of Cashew Plants by Leaf Image Classification	International Journal of Engineering Science Invention	June 2018	Volume 7, Issue 6, 2319-6726
2	D. Rajendra Dev, Rita Roy	Knowledge Discovery Through Various Clustering Techniques	International Journal of Management and Engineering	March 2019	Volume 9, Issue 3, 2249-7455
3	D. Rajendra Dev, Rita Roy	Multi Include Demonstrating of Pulse Clarity: Plan, Approval and Advancement	International Journal of Management and Engineering	March 2019	Volume 9, Issue 3, 2249-7455
4	Dr. P. Vijaya Bharati, Rita Roy	implementing cloud based anti-vehicle theft system using computer vision in national conference on data protection and privacy	Pramana Research Journal	March 2019	Volume 9, Issue 4, 2249-2976.

Table B.5.7.1.f: List of UGC Indexed Publications in 2018-19

List of Publications: CAYm2 (2017-18) Scopus Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	Mrs. D. Kamal Kumari	A Novel Cryptographic Loom Via Multi International Languages DOI: 10.21664/2238-886 9.2017v6i2	Frontiers: Journal of Social, Technological and Environmental Science	Aug 2017	Volume 6, Issue 2, 2238-8869
2	Mr. S. Ram Prasad Reddy	Personalized Anonymization for Patient Privacy in A Mobile Health World DOI: 10.21664/2238-8869.2017	Journal of Advanced Research in Dynamical and Control Systems	Aug 2017	Volume 6, Issue 2, 2238-8870

3	Dr. K Vijaya Kumar	IBFWA: Integrated Bloom Filter in Watchdog Algorithm for hybrid black hole attack detection in MANET DOI: 10.1080/19393555.2016.1274805	Information Security Journal: A Global Perspective	Oct 2017	Volume 9, Issue 2, 1943-023X
4	Mr. S. Ram Prasad Reddy	A Novel Approach for Personalized Privacy Preserving Data Publishing with Multiple Sensitive Attributes	International Journal of Engineering & Technology	Feb 2018	Volume 7, Issue 2, 2227-524X
5	Dr. K Vijaya Kumar	Extended Optimization Procedures for Static List based Task Scheduling Algorithms for HeDCS	International Journal of Recent Technology and Engineering (IJRTE)	Sep 2019	Volume 8, Issue 11, 2277-3879

Table B. 5.7.1.g: List of Scopus Indexed Publications in 2017-18

List of Publications: CAYm2 (2017-18) UGC Indexed

Sl. No	Authors Name	Title of the Paper	Name of the Journal	Month & Year	Volume/ Issue/ISSN
1	Dr. K Vijaya Kumar	Proactive QoS Routing for Data Reliability and Discriminated Services in Ad-Hoc Networks.	International Journal of Advanced Technology and Innovative Research	Aug 2017	Volume 9, Issue 9 2348–2370
2	S. Ram Prasad Reddy KVSVN Raju V. Valli Kumari	Personalized Privacy Preserving Incremental Data Dissemination through Optimal Generalization DOI: 10.36478/jeasci.2018.4205.4216	Journal of Engineering and Applied Sciences	May 2018	Volume 13, Issue.11, 1816-949X

Table B.5.7.1.h: List of UGC Indexed Publications in 2017-18

B. **Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (4)**

Ph.D. awarded during 2017-18

Sl no.	Name of Faculty	University	Month &Year of awarding	Branch	Specialization	Part-time / Regular	Title of thesis
1	Dr. K. Vijaya Kumar	Karpagam University	29.09.2017	CSE	Wireless network	Part time	Breakthrough of Black hole attacks in mobile Adhoc networks and prevention using security systems

Table B.5.7.1.i: Details of faculty who awarded a Ph.D. for Academic Year 2017-18

Ph.D. awarded during 2019-20

S. No	Name of Faculty	University	Month &Year of awarding	Branch	Specialization	Part-time Regular	TITLE
1.	Dr. G. Neelima	GITAM University	11.12.2019	CSE	IT	Part time	
2.	Dr. P. Vijaya Bharati	GITAM University	08-Feb-20	CSE	Cloud computing	Part time	Ensuring data storage security in cloud computing using cryptographic mechanism

Table B.5.7.1.j: Details of faculty who awarded a Ph.D. for Academic Year 2019-20

Pursuing Ph.D. 2017-18

S. No.	Name of Faculty	University	Guide	DOMAIN	Year of Registration	PT/ FT
1	Y. Vineela Sravya	University of Technology, Jaipur	Dr. D. T. Geetha Priya	Wireless Sensor Network	Feb 2018	PT
2	R. Pravallika	University of Technology, Jaipur	Dr. Amit Pandey	Wireless Network security	Feb 2018	PT

Table B.5.7.1.k: Details of faculty pursuing Ph.D. for Academic Year 2017-18

Pursuing Ph.D. 2018-19

S. No.	Name of Faculty	University	Guide	DOMAIN	Year of Registration	PT/ FT
1	D. Rajendra Dev	Annamalai University	Dr. T. Siva Prakasam	Image Processing	Dec-18	PT

Table B.5.7.1.l: Details of faculty pursuing Ph.D. for Academic Year 2018-19

5.7.2 Sponsored Research (5)

Funded Research

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount > 20 Lakh – 5 Marks

Amount >= 16 Lakh and <= 20 Lakh – 4 Marks

Amount >= 12 Lakh and < 16 Lakh – 3 Marks

Amount >= 8 Lakh and < 12 Lakh – 2 Marks

Amount >= 4 Lakh and < 8 Lakh – 1 Mark

Amount < 4 Lakh – 0 Mark

NIL

5.7.3. Development activities (10)

Provide details:

- *Product Development*
- *Research laboratories*
- *Instructional materials*
- *Working models/charts/monograms etc.*

Development activity allows the student to strengthen the technical skills that needs to improve outside the boundary. These activities will increase the competency spirit and fill the weak gaps as an individual and team work. The encouragement of various development activities helps to

develop the student a prime consideration for employment and the opportunities associated with the skills on demand.

A) Product Development

Students and Faculties of the Department of Computer Science and Engineering have contributed towards development of various products.

1. "Rakshana" Women Safety using Alarm buzzer system using GPS

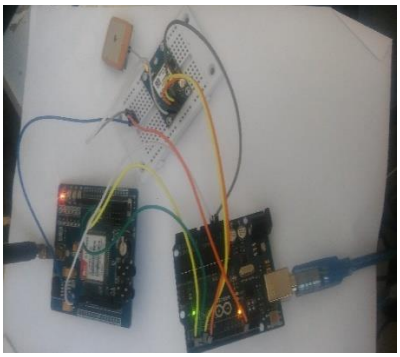


Figure 5.7.3.a: Rakshana" Women Safety using Alarm buzzer using GPS

Students of IV B Tech II Sem (2018-19) developed this prototype as their project work. This device raises alarm and sends message to nearby police station with location when the person presses the button in need. In emergency, by pressing the button women can get quick assistance.

2. Smart Dustbin

Figure 5.7.3.b: Smart Dustbin

Students of IV B.Tech II Sem (2019-20) developed this prototype to participate in Techfest.

Smart dustbin is a bin which automatically opens the lid when it senses any person near to it. The advantage of this bin is without touching the lid to put the wastage which keeps far from infections while touching the lid.

3. Automatic Sanitizer dispenser:

Figure 5.7.3.c: Automatic Sanitizer dispenser

Students of II B.Tech II Sem (2019-20) developed this prototype to participate in technical expo. Automatic sanitizer dispenser is a model which is very much helpful to sanitize hands with a sanitizer liquid inside a container. Whenever any person is near to the device with his hand under the outlet, it pours few drops on the hand. The main use is contactless sanitization of hands.

B) Research laboratories

a) Project Lab

The Department provides facilities for the students to do project work and to enhance their knowledge. The project lab is used by students and faculty to engage in their research areas. The project Lab is provided with adequate resources to enhance their skills in research. Our students exhibited their skills in doing real time projects and participated in various competitions. The following are the major outcomes of the laboratory.

List of Hardware/ System Configuration:

No. of Systems : 30
Operating System : Windows 10

RAM : 8 GB

CPU : intel core i5 8th Gen

GPU : NVIDIA GEFORCE

Storage : 1TB HDD

Display : 15.6 inch (1920 *1080)

Software's installed:

1. Anaconda
2. Python
3. Java
4. SQL
5. R
6. Tableau
7. NOSQL
8. Tensor flow
9. Hadoop

Student publications:

S. No	Name of the Student	Title of the paper
1	S Sravya, P Yamini, Y.Vasantha, P Pooja	Fake News Detection and Comparison Using Machine Learning Algorithms
2	G.Sailaja, B. Niharika, V. Mani Chandana, V.Bhavya	Distributed Metadata Management for Large Storage Systems using Hierarchical Bloom Filter Arrays
3	Ch. Navya Bharathi, Ch.Ramya, K.Chinni, K.SaiPraneetha	Retrieval of featured images using face recognition.
4	G Aishwarya, B Niharika, B Suryateja, B Harika	Enhancing Advance Driver Assistance System by Detecting Weather Conditions Using Machine Learning
5	Atta Lavanya, Dasari Vandana Sri, Bera Sridevi, Jajula Poornima	Age Estimation by Face Detection Using Convolution Neural Networks

6	P. Harshitha, P. Manasa, R. Sai Priya, M. Joshna	Traffic Sign Detection using Convolutional Neural Networks
7	G. Mounika, K. Anjali Reddy, Durga Bhavani, B. Shivani	Object Match Swapping Detection of Facial Landmarks Using Local-based Information
8	K. Yogitha, J Swetha, G. Praharsha, Chakka Swapna	Offline Handwritten Character Recognition using Neural Network
	K.Usha, K.Sri Harsha, S.Rajeswari, B.V.S. S. Madhuri	Pneumonia detection by X-ray images using Deep learning through CNN
10	T.Jaya, R. Sravanisandhya, M. Pravallika, S. Snigtha	Sentimental Analysis on GST using Polarity Classification

Table B.5.7.3.a: List of student's publications from project lab

b) IoT LAB:

Internet of Things laboratory is sponsored by Texas Instruments in the year 2018. This IoT lab is used to design and develop IoT based real-time projects and supporting in developing research activities. The students of Computer Science Engineering enhance their knowledge towards developing of IoT applications by gaining knowledge on IoT domain within the campus and to stay ahead of their peers.

Students and faculty can utilize our IoT test bed available in IoT lab to get hands-on exposure on IoT platform. This IoT test bed is an open and developing ecosystem of edge devices, communication protocols, cloud-based platforms and application with a focus on cost-effective IoT technologies.

Students developed IoT based projects like Health Monitoring System, Smart Home Safety System and Smart Irrigation etc., to participate in various technical events.

The following are the Kits Sponsored by TI kits from STEPS Knowledge services Pvt. ltd will be used by Department of CSE for academic purpose:

Sl. No	Description of the hardware	Quantity

1	CC3200 Simple Link Wi-Fi Launch Pad	15
2	EK-TM4C729EXL	2
3	MSP 430 EXP G2 Launch Pad	8
4	RF Booster Pack CC110L	4
5	37 Sensors Kit	1
6	BBONE-BLACK-WIRELESS	2
7	MSP 430 EXP G2 Launch Pad	30
8	MSP-EXP 430F5529 Experimenter Board	2
9	RF Booster Pack CC110L	5
10	STEPS Experimenter Pack for MSP 430	10
11	MSP-EXP43OF5529LP	10
12	BOOST-DAC8568	2

Table B. 5.7.3.b: Description of the hardware (IoT Lab)

C) Instructional materials

1. Course Files

The Course coordinator prepare/update lecture notes for allotted subjects by consulting various prescribed textbooks, Question banks of previous examinations, relevant NPTEL courses and other e-resources from Google. The Course coordinator maintains a course file that includes the following along with the lecture notes:

- Department Mission, Vision
- Program outcomes
- Course syllabus
- Course outcomes
- CO-PO Mapping
- University Academic Calendar
- Department Academic Calendar
- CDP
- Course Timetable
- Lecture Notes
- Question Bank (unit wise)
- Multiple Choice Questions
- Tutorial Topics/Problems

- Topics beyond Syllabus
- PPT's/videos/other materials
- Internal question papers & scheme
- Assignment Questions
- University old question Papers
- Gap Analysis
- Remedial Classes to weak students
- Result Analysis & Course attainments

2. Google classroom

Google classroom is an application designed to enhance the learning experience which is incorporated in our teaching learning process. It helps to interact with students 24 X 7, by posting technical contents, notes, and assignments and also facilitates to conduct and evaluate online quizzes. The tools offer opportunities for collaboration in real time and the ability to work remotely.

3. Laboratory Manuals:

Lab Manuals are prepared for every regulation and the respective handouts will be given at the beginning of each semester.

D) Working models/charts/monograms etc.

1. Street light that glows on detecting the vehicle movement using image processing

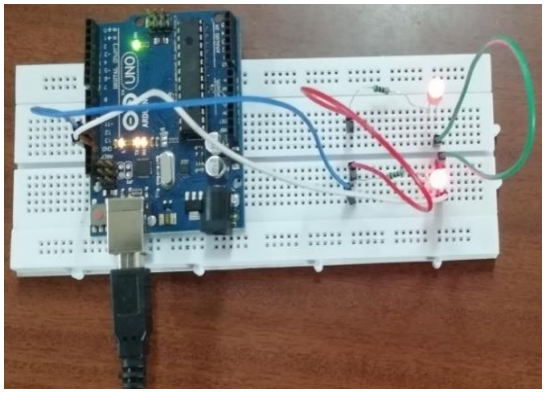


Figure 5.7.3.d: Street light that glows on detecting the vehicle movement using image processing

Students of IV B Tech II Sem (2018-19) developed this model as their project work. During night, in order to save energy while using street lights beside the main road, this light glow when it detects any vehicle in its proximity range and automatically switch off when the vehicle passes away.

2. IoT Based Air Pollution Monitoring System using Arduino

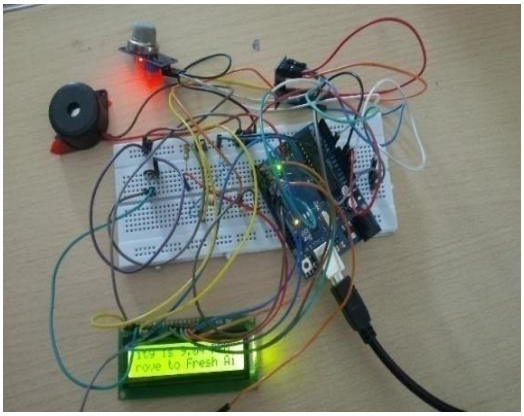


Figure 5.7.3.e: IoT Based Air Pollution Monitoring System using Arduino

Students of IV B Tech II Sem (2018-19) developed this prototype as their project work. This prototype is used to find the pollution in air using IoT. A threshold value is fixed and the buzzer produce sound when the sensed air has PPM value more than the threshold and sends an email to the respective authority.

3. Road Accident Alert System

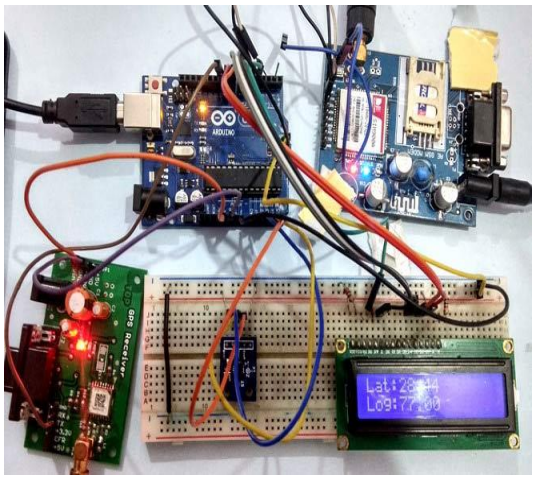


Figure 5.7.3.f: Road Accident Alert System

Students of IV B Tech II Sem (2018-19) developed this prototype as their project work. This prototype is used to send information to the nearest police station whenever an accident happens. This prototype is designed to send the information by message using GSM and accident place by using GPS for quick rescue and saving lives.

4. Industrial Smart Power Strip

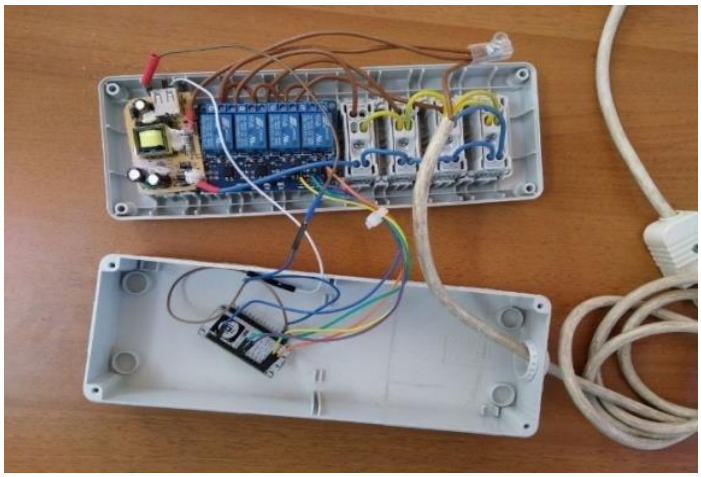


Figure 5.7.3.g: Industrial Smart Power Strip

This prototype is used to maintain the switches or controls virtually by using Internet. The controls will be available in the form of mobile application which can be controlled at any time. To make the control ON and OFF on demand, this prototype can be used.

5. Smart Home Safety System

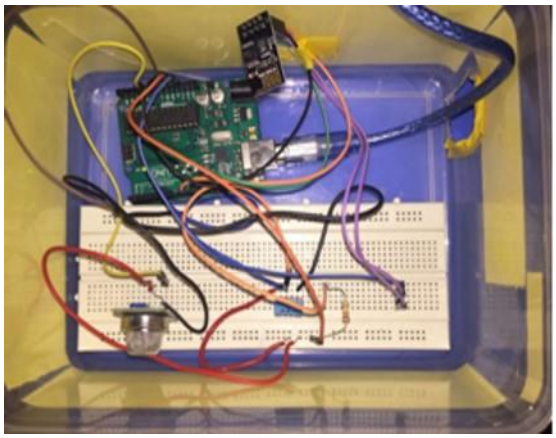


Figure 5.7.3.h: Smart Home Safety System

Students of IV B Tech II Sem (2017-18) developed this project as a part for Technical expo. This model is used to identify gas leakage like LPG in domestic purpose. It sends an alarm and message to the registered mobile number whenever it senses gas leakage by using MQ2 sensor.

6. Voice Controlled Car

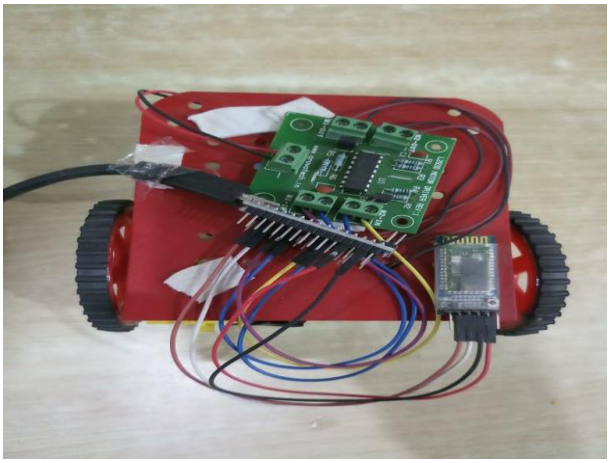


Figure 5.7.3.i: Voice Controlled Car

Students of IV B. Tech II Sem (2019-20) developed this prototype to participate in technical expo. This prototype is used to operate the car through voice based control. The main objective of this model is for physically challenged persons to comfortably drive the car on road.

7. Home Automation using TV Remote

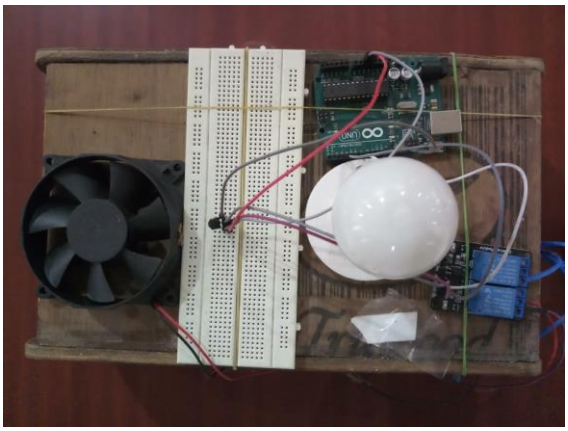


Figure 5.7.3.j: Home Automation using TV Remote

Students of IV B. Tech II Sem (2019-20) developed this prototype to participate in technical expo. This model is used to effectively utilize the unused controls of the television remote to control other appliance in home. The unused controls in the remote can be merged with other device controls.

5.7.4. Consultancy (from Industry) (5)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding amount (Cumulative during CAYm1, CAYm2 and CAYm3):
Amount > 10 Lakh – 5 Marks
Amount >= 8 Lakh and <= 10 Lakh – 4 Marks
Amount >= 6 Lakh and < 8 Lakh – 3 Marks
Amount >= 4 Lakh and < 6 Lakh – 2 Marks
Amount >= 2 Lakh and < 4 Lakh – 1 Mark
Amount < 2 Lakh – 0 Mark

CAY (2019-20)

Sl. No	Name of the PI and Co PI	Project Title	Funding Agency	Amount	Duration
1.	Dr.K.Vijaya Kumar (Principal Investigator) Associate Professor	Hospital Management Software	Shyamgar Software Solutions	Rs. 8,20,000/-	02 years
2.	Dr. P. Vijaya Bharati (Co- Principal Investigator) Associate Professor	Performance Management System (e-PMS)	Brain O Vision solutions Pvt Ltd	Rs. 8,40,000/-	02 years

Table. 5.7.4.a: Consultancy Information for CAY (2019-20)

CAYm1 (2018-19)

Sl. No	Name of the PI and Co PI	Project Title	Funding Agency	Amount	Duration
1.	Dr. K. Vijaya Kumar (Principal Investigator) Associate Professor	Hospital Management Software	Shyamgar Software Solutions	Rs. 8,20,000/-	02 years
2.	Dr. P. Vijaya Bharati (Co- Principal Investigator) Associate Professor	Performance Management System (e-PMS)	Brain O Vision solutions Pvt Ltd	Rs. 8,40,000/-	02 years

Table. 5.7.4.b: Consultancy Information for CAY (2019-20)

CAYm2 (2017-18)

S. No	Name of the PI and Co PI	Project Title	Funding Agency	Amount	Duration
NIL					

Table. 5.7.4.c: Consultancy Information for CAY (2019-20)

5.8. Faculty Performance Appraisal and Development System (FPADS) (30)

A. A well-defined performance appraisal and development system instituted for all the assessment years

In an effort to recognize and reward the performance of staff, it is the philosophy of the Institution to award annual increments to encourage the quality of teaching, research and to optimizing the contribution of individual faculty to institutional performance through an effective performance appraisal system.

The faculty members shall submit the open and transparent performance report in the prescribed format, containing the teacher's academic, research, supplementary activities and achievements during the academic year. The Head of the Department shall offer his remarks and observation on the form. The Academic Planning and Audit Committee (APAC) shall review the report on Performance Appraisal staff to the Management through the Principal. The assessment shall be used for the following purposes.

1. Award of annual increments.
2. Award of special increments/allowance.
3. Award of career advancement and promotion.
4. Monitoring and recording of the regular growth of each faculty member.

Parameters to asses Performance Appraisal

The performance of staff assessed through **3 criteria** for the purpose of annual increment with a total score of 10.

Criteria No.	Element of Criteria	Max. Score	% of Weightage
1	Academic Results & Feedback	4 Marks	40
2	Research & Development	3 Marks	30
3	Supplementary Activities	3 Marks	30
Total		**10 Marks**	**100%**

Table B. 5.8.a: Elements of Criteria's in Appraisal Form

Criterion -1 is mainly focused on the academic performance of staff which covers the teaching related activities, domain knowledge, semester results and students' feedback in an academic year.

Criterion -2 is mainly considered the faculty output in Research and Development activates in an academic year. Based on cadre of faculty, the expected output of R&D shall be categorized. R & D activities includes Research papers published in scholarly journals, Book publications, research projects, consultancy projects, organizing and attending conferences/seminars, workshops and FDPs.

Criterion -3 covers curricular and extracurricular activities, counseling/mentoring of students, roles and contributions in Institutional Governance and administration, awards and achievements and Professional Development Activates.

Grant/Award of Annual Increments:

Increments shall be sanctioned by the Management as recommended by the Principal. The grant of number of increments is based on the score secured by the faculty out of the total score of 10.

Secured Score	Grade	No. of Increments
>= 7.5	A+	3 (Three)
< 7.5 & >= 6.5	A	2 (Two)
< 6.5 & >= 5	B	1 (One)
< 5	C	No Increment

Table B.5.8.b: Details of Grades and Increments

B. Its implementation and effectiveness (20)

a) If a teaching staff falls in 'B' grade in 2 continuous years, the Management/Principal have right to terminate or service one month notice to staff for termination due to lack of improvement in performance.

b) If a teaching staff falls in 'C' grade, the Management/Principal have right to terminate the faculty immediately or service one month notice to staff for termination. In special cases, the Principal shall allow an opportunity to improve the performance with in one academic year.

Letter of Annual Increment:

All employees will be informed in writing about their annual increments after the Performance Appraisal.

In an effort to recognize and reward the performance of employees, it is the organization's philosophy that the principal component to enhance compensation shall be through annual increment based on performance evaluations.

Application of the Policy

- All regular employees are eligible for yearly increment based on the results of their Performance Appraisal conducted annually.

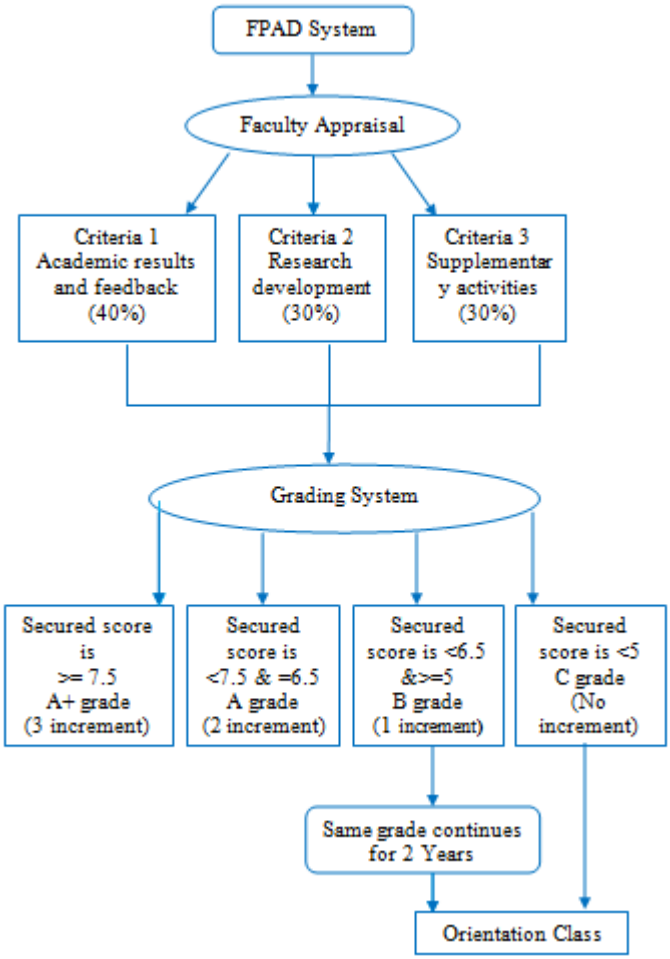


Figure 5.8.a: FPAD System

Academic Year	Total Number of faculty members	No. of faculty members secured A^+ grade	No. of faculty members secured A grade	No. of faculty members secured B grade	No. of faculty members secured C grade
CAYm2(2017-18)	41	10	11	17	3
CAYm1(2018-19)	37	12	12	11	2
CAY(2019-20)	33	12	12	9	0

Table B.5.8.c: Faculty assessment in CAY, CAYm1, CAYm2

Faculty Performance Evaluation Form:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Approved by AICTE, New Delhi & Affiliated to JNTU Kakinada)
Kapu Jaggarajupeta, VSEZ (Post),Visakhapatnam – 530 049
Ph: 9133300357, 8886066339 :: Fax: 0891-2010487 :: E-Mail: viewvizag2008@gmail.com

FACULTY PERFORMANCE EVALUATION FORM
(FOR THE PERIOD AUG- 2018 TO JULY- 2019)

Part A: General Information

1. Name (In Block Letter) : I MANDI RAJU
2. Employee ID : 10589
3. Designation & Department : Assistant Professor & Dept of CSE
4. Date of Joining : 31-03-2016
5. Month of Increment Due : August - 2018.

Part B : Academic Performance Indicators

Category I

Instructional/Academic Element

(a) Teaching Engagement - Semester-I

Course (UG/PG)	Year & Branch	Sec	Class Strength	Subject	No of Classes Taken	No of Units Covered	% of Syllabus Covered	Pass %	Feed back
UG	IV CSE	B	59	HBD	83	6	100	96.61	9.59
UG	IV CSE	C	67	HBD	78	6	100	98.48	9.69

Teaching Engagement - Semester-II

Course (UG/PG)	Year & Branch	Sec	Class Strength	Subject	No of Classes Taken	No of Units Covered	% of Syllabus Covered	Pass %	Feed back
UG	III CSE	A	61	CN	94	6	100	100	9.32
UG	III CSE	C	65	CN	88	6	100	97	9.32

(b) Laboratory:

Semester	Year & Branch	Sec	Strength	Name of Laboratory	No of Sessions Taken	No of Exp. Prescribed as per syllabus	No of Exp. Completed
I	IV CSE	B,C	59,67	HBD LAB	36, 39	8	8
II	III CSE	A,C	61,65	NP LAB	45, 45	12	12

(c) No. of Project Supervised: 04

Category II

Research, Publication & Professional Development Activities (Proofs to be attached)

(a) Publications/Books/Patents/Copy Rights (From 08/2018 to 07/2019)

No. of Publications in SCI Journals- Paid : Unpaid:

No. of Publications in Scopus Journals- Paid : Unpaid: 01

No. of publications in Conference Proceedings- Int. National: National:

No. of Books Authored/Contributed: No. of Patents/Copy Rights:

(b) No. of Conferences/Workshops/FDPs attended: (From 08/2018 to 07/2019)

International Conferences	National Conferences	International Workshops	National Workshops	FDPs
				04

(c) No. of Conferences/Workshops/FDPs Organized: (From 08/2018 to 07/2019)

International Conferences	National Conferences	International Workshops	National Workshops	FDPs

d) Research Funding Projects:

Year	Title of the Project	Type of Project	Funded Agency	Project Value

Category III

Supplementary Activities (Attached Additional Sheet, if required)

a) Awards and acknowledging certificates *(kindly attach supporting documents)*:

(NET/SLET/M.Phil/Ph.D/IUCEE/NPTEL/Other Texas Instruments (Second Place in Online Contest)

b) Counseling of Students: 23

(i) Total no. of Regular students Allotted : 23 (ii) Total no. of students cleared all the subjects: 15

(ii) No. of Backlog Students Allotted : 08 (iv) No. of Students cleared Backlogs: 04

c) Roles and contributions in Institutional Governance and administration (Tick whichever is applicable)

Head of the Department/Department T&P Coordinator/ NSS Coordinator/Women Grievance Cell Coordinator/ Assistant Head of the Department/ Website Coordinator/ Institutional Criteria Coordinator of NBA & NAAC / College Level Admissions/Time-Table Coordinator/IQAC Coordinator/ Alumni Association Coordinator/ CoE/Exam Cell Staff/Any other Institutional Level Coordinator role assigned by Principal (Please specify.....)

(d) Regularity assessment of Faculty/Leave Details (From 08/2018 to 07/2019)

CL	ML	CCL	EL	Other Leaves (Academic/Mat. Leave/Paternity Leave	Loss of Pay due to excess Leaves	Loss of Pay due to biometric deviations
07	0	0	0	Marriage leaves (06)	-	1.5

e) Other activities Inside/Outside the campus towards development of self & students:

1) Development and Maintanance of Personal blog for the benifit of Students.

f) Contribution to Department:

1) Developed website for conducting online Quiz during Association Day Celebrations
2) Co-ordinator for Department level workshops, FDP's 3) Projectwork faculty Coordinato

f) Contribution to Institution:

1) website development women Grievance cell.
2) conducted CCC hackerrank classes.

h) Any other Information

1) Accompanied students to orphanize and oldage homes as part of Akshya foundation. activities.
2) Development of Akshya website.

I. Raj

Signature of Faculty

Remarks of HoD

Signature of Head of the Department

Remarks/Recommendations of Principal

Recommended three increments

Signature of Principal

Fig. 5.8.b: Faculty Performance Evaluation form

Faculty Appraisal proceedings implemented for 2017-18

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
(Approved by AICTE & Affiliated to JNT University, Kakinada) Estd. 2008
ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Institution
Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049, Andhra Pradesh, India
Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

VIEW/Principal/Office Order/2018/22/CSE Date:20/08/2018

PROCEEDINGS OF THE OFFICE ORDER

The Management is pleased to inform that, the following list of faculty members from the Department of Computer Science and Engineering awarded annual increments for the academic year **2017-18** based on their performance during the period of 01/08/2017 to 31/07/2018.

Sl. No	Name of Faculty Member	Designation	Grade	No. of Increments	Increment (Rs.)
1	Dr. M. Ben Swarup	Professor	A	2	4,824
2	Dr. T. V. Madhusudhan	Professor	A	2	4,824
3	Dr. B. Prasad	Professor	A	2	4,824
4	Dr. K. Vijaya Kumar	Assoc Prof	A+	3	6,798
5	Dr. N. Thirupathi Rao	Assoc Prof	A	2	4,532
6	Dr. J. Anitha	Assoc Prof	A	2	4,532
7	Mr. S. Ram Prasad	Assoc. Prof	A	2	4,532
8	Mrs. P. Vijaya Bharati	Asst. Prof	A+	3	2,625
9	Mr. N. K. Santosh	Asst. Prof	A+	3	2,625
10	Mr. L. Bhupathi Rao	Asst. Prof	A+	3	2,625
11	Mr. B. A. Ganesh	Asst. Prof	A+	3	2,625
12	Mr. A. N. Suresh	Asst. Prof	A	2	1,750
13	Mrs. D. Kamal Kumari	Asst. Prof	B	1	875
14	Mr. K. Madhuri	Asst. Prof	A	2	1,750
15	Mrs. M. Mamatha	Asst. Prof	B	1	875
16	Mrs. S. Chandini	Asst. Prof	C	0	0
17	Mr. B. Venkatesh	Asst. Prof	B	1	875
18	Mr. Ch. Sudhakar	Asst. Prof	B	1	875
19	Ms. T. Padmavathy	Asst. Prof	A+	3	2,625
20	Mr. I. Raju	Asst. Prof	A+	3	2,625
21	Mrs. Y. Vineela Sravya	Asst. Prof	A+	3	2,625

22	Mrs. R. Pravallika	Asst. Prof	A+	3	2,625
23	Mrs. M. Sailaja	Asst. Prof	B	1	
24	Mrs. G. Sandhya	Asst. Prof	A	2	1,750
25	Mrs. G. Pavani latha	Asst. Prof	A	2	1,750
26	Mr. T. Hari babu	Asst. Prof	B	1	875
27	Mr.Ch. V. Bhikshapathi	Asst. Prof	B	1	875
28	Mr. P. Praveen Kumar	Asst. Prof	A+	3	2,625
29	Mrs. B. Madhavi	Asst. Prof	B	1	875
30	Mr. Mohan Mahanty	Asst. Prof	B	1	875
31	Mr. D. Chandra Mouli	Asst. Prof	B	1	875
32	Mr. S. Venkatesh	Asst. Prof	B	1	875
33	Mr. S. Raju Chintalapati	Asst. Prof	B	1	875
34	Mr. M. Krishnam Raju	Asst. Prof	B	1	875
35	Mrs. V. Sree Lahari	Asst. Prof	B	1	875
36	Mrs. D. Savitri	Asst. Prof	B	1	875
37	Mrs. Ch. Ramya	Asst. Prof	C	0	0
38	Mrs. J. Aruna Devi	Asst. Prof	C	0	0
39	Mr. G. Vinay Reddy	Asst. Prof	A	2	1,750
40	Mr. M. Srinivasa Rao	Asst. Prof.	B	1	875
41	Mr. Ch. Sekhar	Asst. Prof.	B	1	875

The above increment will be implemented w.e.f 1st August 2018. The increment letter to individuals will be issued shortly. Wish you all the very best for a rewarding career with the Institution.

On behalf of the Chairman of Vignan Group,

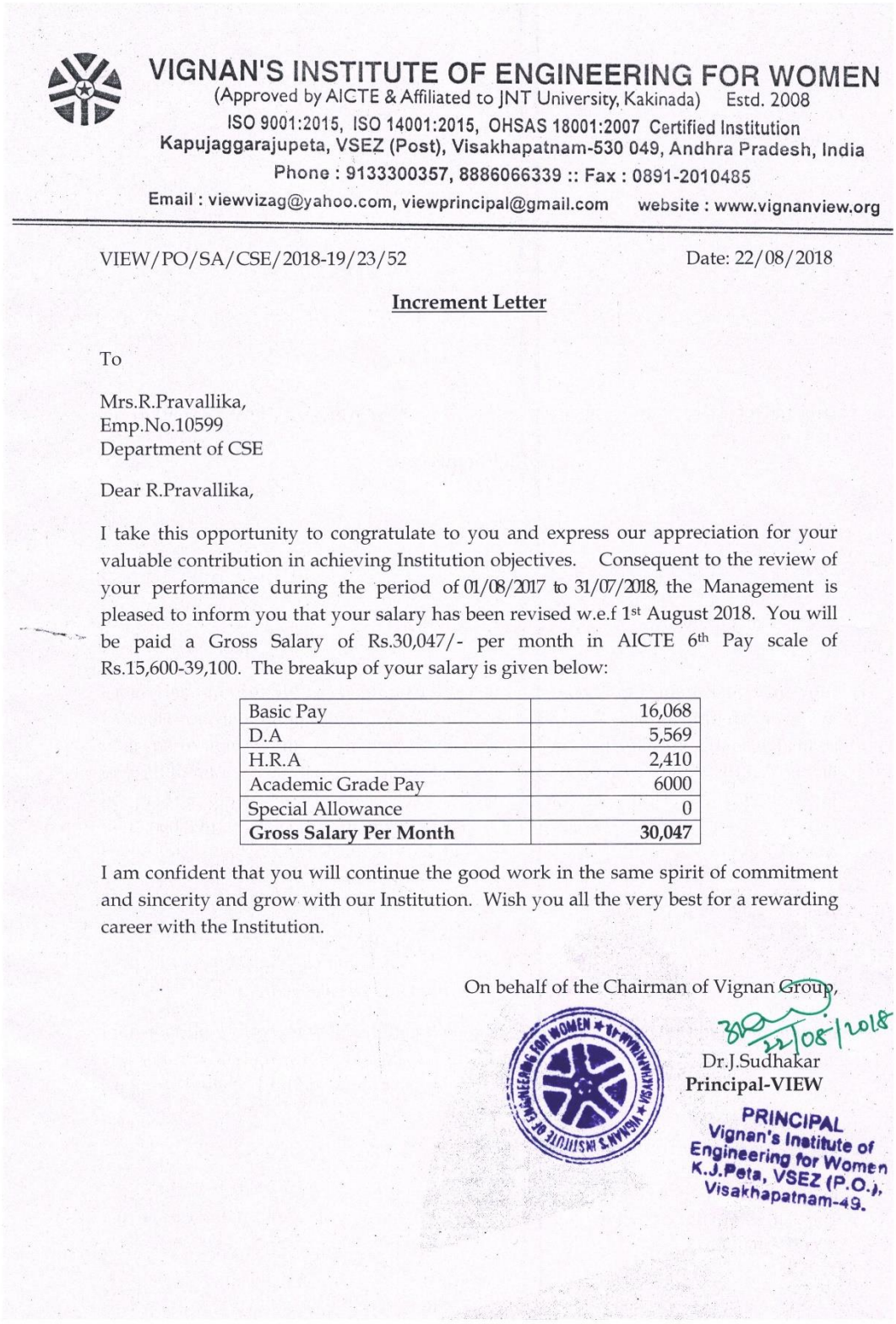
20/08/2018

Dr.J.Sudhakar
Principal-VIEW

PRINCIPAL
Vignan's Institute of Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-48.

Fig. 5.8.c: Faculty Appraisal proceedings implemented for 2017-18

Increment letter of Mrs. R. Pravallika, Asst Prof



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Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049, Andhra Pradesh, India
Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

VIEW/PO/SA/CSE/2018-19/23/52 Date: 22/08/2018

Increment Letter

To

Mrs.R.Pravallika,
Emp.No.10599
Department of CSE

Dear R.Pravallika,

I take this opportunity to congratulate to you and express our appreciation for your valuable contribution in achieving Institution objectives. Consequent to the review of your performance during the period of 01/08/2017 to 31/07/2018, the Management is pleased to inform you that your salary has been revised w.e.f 1st August 2018. You will be paid a Gross Salary of Rs.30,047/- per month in AICTE 6th Pay scale of Rs.15,600-39,100. The breakup of your salary is given below:

Basic Pay	16,068
D.A	5,569
H.R.A	2,410
Academic Grade Pay	6000
Special Allowance	0
Gross Salary Per Month	**30,047**

I am confident that you will continue the good work in the same spirit of commitment and sincerity and grow with our Institution. Wish you all the very best for a rewarding career with the Institution.

On behalf of the Chairman of Vignan Group,

22/08/2018

Dr.J.Sudhakar
Principal-VIEW

PRINCIPAL
Vignan's Institute of Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-49.

Fig. 5.8.d: Increment letter of Mrs. R. Pravallika, Asst Prof

Faculty Appraisal proceedings implemented for 2018-19

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
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Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

VIEW/Principal/Office Order/2019/14/CSE Date: 26/08/2019

PROCEEDINGS OF THE OFFICE ORDER

The Management is pleased to inform that, the following list of faculty members from the Department of Computer Science and Engineering awarded annual increments for the academic year **2018-19** based on their performance during the period of 01/08/2018 to 31/07/2019.

Sl. No	Name of Faculty Member	Designation	Grade	No. of Increments	Increment (Rs.)
1	Dr.T.V. Madhusudhan	Professor	A	2	4,824
2	Dr. B. Prasad	Professor	A	2	4,824
3	Dr. K. Vijaya Kumar	Assoc Prof	A+	3	6,798
4	Dr. N. Thirupathi Rao	Assoc Prof	A	2	4,532
5	Mrs. P. Vijaya Bharati	Asst. Prof	A+	3	2,625
6	Mr. S. Ram Prasad	Assoc. Prof	C	0	0
7	Mr. L. Bhupathi Rao	Asst. Prof.	A+	3	2,625
8	Mr. B. A. Ganesh	Asst. Prof.	A+	3	2,625
9	Mr. A.N. Suresh	Asst. Prof.	A	2	1,750
10	Mrs. D. Kamal Kumari	Asst. Prof.	A	2	1,750
11	Mr. K. Madhuri	Asst. Prof.	B	1	875
12	Mrs. M. Mamatha	Asst. Prof.	C	0	0
13	Mr. B. Venkatesh	Asst. Prof.	B	1	875
14	Mr. Ch. Sudhakar	Asst. Prof.	B	1	875
15	Ms. T. Padmavathy	Asst. Prof.	A+	3	2,625
16	Mr. I. Raju	Asst. Prof.	A+	3	2,625
17	Mrs. Y. Vineela Sravya	Asst. Prof.	A+	3	2,625
18	Mrs. R. Pravallika	Asst. Prof.	A+	3	2,625
19	Mrs. M. Sailaja	Asst. Prof.	A	2	1,750
20	Mrs. G. Sandhya	Asst. Prof.	A+	3	2,625
21	Mrs. G. Pavani latha	Asst. Prof.	A+	3	2,625
22	Mr. T. Hari babu	Asst. Prof.	A	2	1,750

23	Mr. P. Praveen Kumar	Asst. Prof.	A+	3	2,625
24	Mrs. B. Madhavi	Asst. Prof.	A	2	1,750
25	Mr. Mohan Mahanty	Asst. Prof.	B	1	875
26	Mr. D. Chandra Mouli	Asst. Prof.	B	1	875
27	Mr. S. Venkatesh	Asst. Prof.	B	1	875
28	Mr. S. Raju Chintalapati	Asst. Prof.	B	1	875
29	Mr. M. Krishnam Raju	Asst. Prof.	B	1	875
30	Mrs. V. Sree Lahari	Asst. Prof.	A	2	1,750
31	Mrs. N. Sowjanya	Asst. Prof.	A	2	1,750
32	Mr. D. Rajendra Dev	Asst. Prof.	A	2	1,750
33	Ms. Rita Roy	Asst. Prof.	A+	3	2,625
34	Mr. R. Ravi	Asst. Prof.	A	2	1,750
35	Mr. G. Vinay Reddy	Asst. Prof.	B	1	875
36	Mr. M. Srinivasa Rao	Asst. Prof.	B	1	875
37	Mr. Ch. Sekhar	Asst. Prof.	B	1	875

The above increment has been implemented w.e.f 1st August 2019. The increment letter to individuals will be issued shortly. Wish you all the very best for a rewarding career with the Institution.

On behalf of the Chairman of Vignan Group,

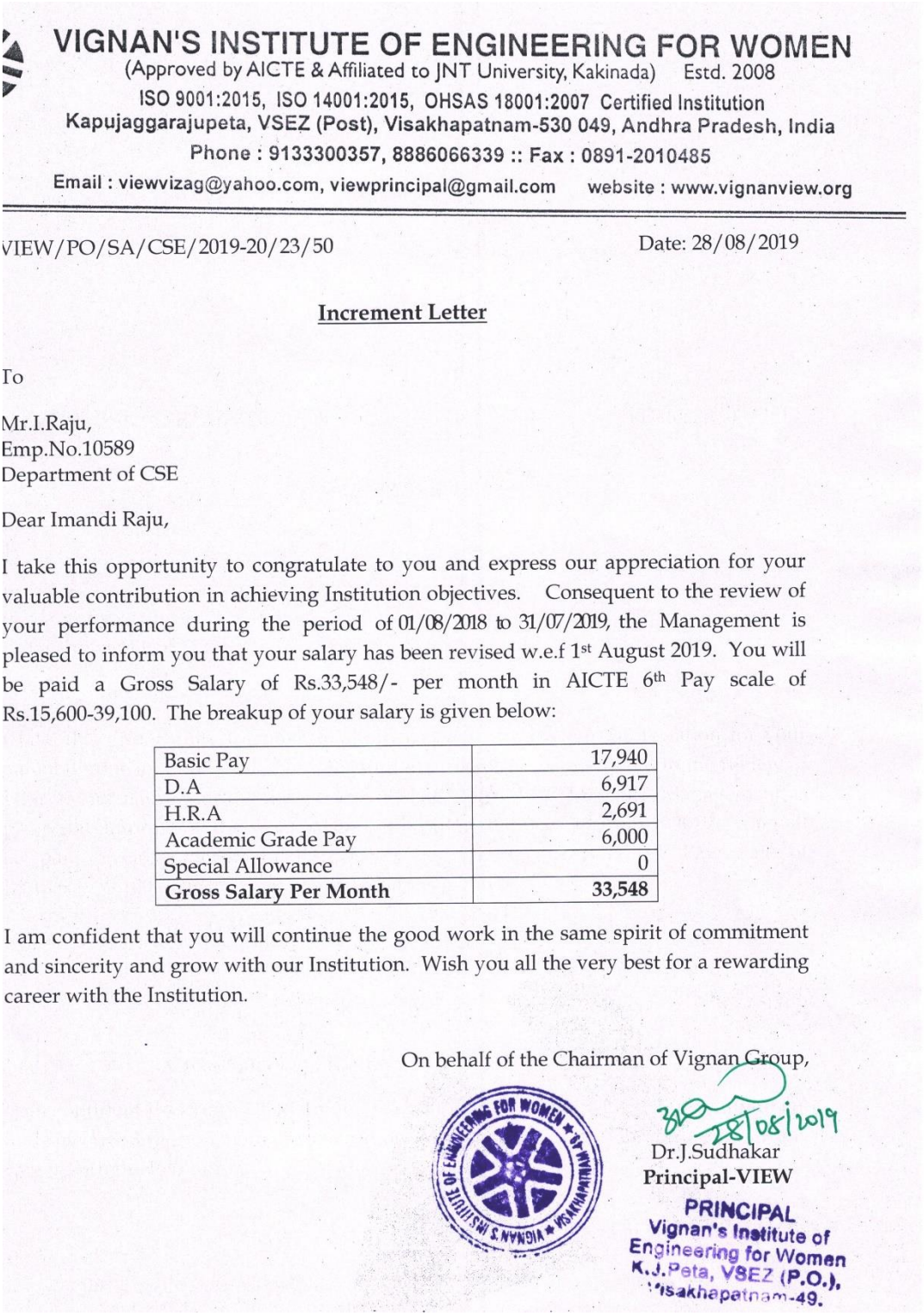
26/08/2019

Dr.J.Sudhakar
Principal-VIEW

PRINCIPAL
Vignan's Institute of Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-49.

Fig. 5.8.e: Faculty Appraisal proceedings implemented for 2018-19

Increment letter of Mr. I. Raju, Asst Prof



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Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

VIEW/PO/SA/CSE/2019-20/23/50 Date: 28/08/2019

Increment Letter

To

Mr.I.Raju,
Emp.No.10589
Department of CSE

Dear Imandi Raju,

I take this opportunity to congratulate to you and express our appreciation for your valuable contribution in achieving Institution objectives. Consequent to the review of your performance during the period of 01/08/2018 to 31/07/2019, the Management is pleased to inform you that your salary has been revised w.e.f 1st August 2019. You will be paid a Gross Salary of Rs.33,548/- per month in AICTE 6th Pay scale of Rs.15,600-39,100. The breakup of your salary is given below:

Basic Pay	17,940
D.A	6,917
H.R.A	2,691
Academic Grade Pay	6,000
Special Allowance	0
Gross Salary Per Month	**33,548**

I am confident that you will continue the good work in the same spirit of commitment and sincerity and grow with our Institution. Wish you all the very best for a rewarding career with the Institution.

On behalf of the Chairman of Vignan Group,

28/08/2019
Dr.J.Sudhakar
Principal-VIEW

PRINCIPAL
Vignan's Institute of Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-49.

Fig. 5.8.f: Increment letter of Mr. I. Raju, Asst Prof

Faculty Appraisal proceedings to be implemented for 2019-20

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
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ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Institution
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Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

VIEW/Principal/Office Order/2020/10/CSE Date: 18/08/2020

PROCEEDINGS OF THE OFFICE ORDER

The Management is pleased to inform that, the following list of faculty members from the Department of Computer Science and Engineering awarded annual increments for the academic year **2019-20** based on their performance during the period of 01/08/2019 to 31/07/2020.

Sl. No	Name of Faculty Member	Designation	Grade	No. of Increments	Increment (Rs.)
1	Dr. T.V. Madhusudhan Rao	Professor	A	2	4,824
2	Dr. B. Prasad	Professor	A	2	4,824
3	Dr. K. Vijaya Kumar	Assoc Prof	A+	3	6,798
4	Dr. P. Vijaya Bharati	Assoc Prof	A+	3	6,798
5	Dr. N. Thirupathi Rao	Assoc Prof	A	2	4,532
6	Dr. G. Neelima	Assoc Prof	A	2	4,532
7	Mrs. M. Mamatha Laxmi	Asst. Prof	A+	3	2,625
8	Mr. B. Venkatesh	Asst. Prof	B	1	875
9	Mr. Ch. Sudhakar	Asst. Prof	B	1	875
10	Mr. I. Raju	Asst. Prof	A+	3	2,625
11	Mrs. Y. Vineela Sravya	Asst. Prof	A+	3	2,625
12	Mrs. R. Pravallika	Asst. Prof	A+	3	2,625
13	Mrs. M. Sailaja	Asst. Prof	A	2	1,750
14	Mrs. G. Sandhya	Asst. Prof	A+	3	2,625
15	Mrs. G. Pavani latha	Asst. Prof	A+	3	2,625
16	Mrs. B. Madhavi	Asst. Prof	A	2	1,750
17	Mr. Mohan Mahanty	Asst. Prof	B	1	875
18	Mr. D. Chandra mouli	Asst. Prof	B	1	875
19	Mr. S. Venkatesh	Asst. Prof	B	1	875
20	Mr. S. Raju Chintalapati	Asst. Prof	A	2	1,750
21	Mr. M. Krishnam Raju	Asst. Prof	B	1	875

22	Mrs. V. Sree Lahari	Asst. Prof	A	2	1,750
23	Mrs. N. Sowjanya Kumari	Asst. Prof	A+	3	2,625
24	Mr. D. Rajendra Dev	Asst. Prof	A+	3	2,625
25	Ms. Rita Roy	Asst. Prof	A+	3	2,625
26	Mr. R. Ravi	Asst. Prof	A+	3	2,625
27	Mrs.J. Hima Bindhu	Asst. Prof	A	2	1,750
28	Mrs. Sheik Rahamuinissa	Asst. Prof	A	2	1,750
29	Ms. B. Haritha Laxmi	Asst. Prof	A	2	1,750
30	Mr. A. Maheswara Rao	Asst. Prof	A	2	1,750
31	Mr. G. Vinay Reddy	Asst. Prof.	B	1	875
32	Mr. M. Srinivasa Rao	Asst. Prof.	B	1	875
33	Mr. Ch. Sekhar	Asst. Prof.	B	1	875

The above increment has been implemented w.e.f 1st August 2020. The increment letter to individuals will be issued shortly. Wish you all the very best for a rewarding career with the Institution.

On behalf of the Chairman of Vignan Group,

15/08/2020

Dr.J.Sudhakar
Principal-VIEW

PRINCIPAL
Vignan's Institute of Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-49.

Fig. 5.8.g: Faculty Appraisal proceedings to be implemented for 2019-20

5.9. Visiting/Adjunct/Emeritus Faculty etc. (10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

• Provision of inviting/having visiting/adjunct/emeritus faculty (1)
• Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc.
(Minimum 50 hours interaction in a year will result in 3 marks for that year;
3 marks x 3 years = 9 marks)

In order to bridge the gap between the industry and the students, experts from different industries are used as a provision to impart a good blend of theoretical and practical knowledge to the students to the current needs of IT industry. This has helped students in securing placements in core companies. The adjunct faculties are involved in academic research throughout the academic year, improvement of teaching-learning processes. They contribute to the institution through the participation in various areas like teaching-mentoring students and faculty and R&D activities.

CAY (2019-20)

Sl. No.	Name of the adjunct faculty with affiliation	Name of the course	Interaction Hours
1.	Prof. A. Sesha Rao, Scientist C, NSTL, DRDO Visakhapatnam Ex. Senior Professor (CSE) GMR IT, VIIT, VIEW	Deep learning	58
Total hours of interaction			58

Table B.5.9.a: Visiting/Adjunct/Emeritus Faculty etc. CAY (2019-20)

CAYm1 (2018-19)

Sl. No.	Name of the adjunct faculty with affiliation	Name of the course	Interaction Hours
1.	Prof. A. Sesha Rao, Scientist C, NSTL, DRDO Visakhapatnam	Cyber Security	53

	Ex. Senior Professor (CSE) GMR IT, VIIT, VIEW		
Total hours of interaction			53

Table B.5.9.b: Visiting/Adjunct/Emeritus Faculty etc. CAY (2018-19)

CAYm2 (2017-18)

Sl. No.	Name of the adjunct faculty with affiliation	Name of the course	Interaction Hours
1.	Prof. A. Sesha Rao, Scientist C, NSTL, DRDO Visakhapatnam Ex. Senior Professor (CSE) GMR IT, VIIT, VIEW	Artificial neural network	58
Total hours of interaction			58

Table B.5.9.c: Visiting/Adjunct/Emeritus Faculty etc. CAY (2017-18)

Criterion 6	Facilities and Technical Support	80 M

6.1	Adequate and well-equipped laboratories, and technical manpower	30M
6.2	Additional facilities created for improving the quality of learning experience in laboratories	25M
6.3	Laboratories: Maintenance and overall ambiance	10M
6.4	Project laboratory	5M
6.5	Safety measures in laboratories	10M

CRITERION 6	Facilities and Technical Support	80

6. Facilities and Technical Support (80)

6.1. Adequate and well-equipped laboratories and technical manpower (30)

The Department of Computer Science and Engineering has well established computer laboratories that excel in enriching the practical knowledge of students in solving complex problems with excellent coding skills. The computer labs are primarily used to deliver the practical courses of undergraduate students of the Computer Science and Engineering (CSE) program and first year courses. All the computer labs are equipped with adequate hardware and software to run program specific curriculum and off-program curriculum. Each lab operates on a specific schedule, two sessions (three periods per session) per day accommodating more than 60 students per batch. The lab courses are handled by experienced faculty to ensure the attainment of Course Outcomes which in turn contribute to POs and PSOs.

The facilities available in the laboratories are mentioned in detail in the following Table B.6.1.

Sr. No.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the Important equipment	Weekly utilization status	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1.	C and Data Structures Lab	60	• Dell Vostro, Intel Core i3 4150 CPU @3.5 GHz, 4 GB RAM, 500GB HDD, LCD Monitor – **45** • Foxin, Intel Core2 Duo CPU E6750 @2.66 GHz, 4GB RAM, 320GB HDD, LCD Monitor – **25** Total: **70** • Projector: Benq MS535P SVGA Projector. • 24 PORT Switches: 04	Semester I Total: 27 Hours per week Semester II Total: 18 Hours per week Utilization: 75%	Mrs. S. Pushpa Latha	Programmer	B.Tech

2.	Object Oriented Programming Lab	60	• Dell Vostro, Intel Corei3-8100 CPU@3.60 GHz, 8GB RAM,1TB HDD, LCD Monitor Total: 70. • Projector: Benq MS535P SVGA Projector. • 24 PORT Switches: 04	Semester I Total: 18 Hours per week Semester II Total: 18 Hours per week Utilization: 50%	Ms. K. Susmitha	Programmer	B. Tech
3.	Free Open Source Lab	60	• Dell Vostro, Intel Corei3-8100 CPU@3.60 GHz, 8GB RAM,1TB HDD, LCD Monitor Total: 70. • Projector: Benq MS535P SVGA Projector. • 24 PORT Switches: 04	Semester I Total: 27 Hours per week Semester II Total: 18 Hours per week Utilization: 75%	Mr. G. Sravan Kumar	Programmer	B. Tech
4.	Design and Database Management Lab	60	• Dell Vostro, Intel Corei3-8100 CPU@3.60 GHz, 8GB RAM,1TB HDD, LCD Monitor Total: 70. • Projector: Benq MS535P SVGA Projector. • 24 PORT Switches: 04	Semester I Total: 18 Hours per week Semester II Total: 9 Hours per week Utilization: 50%	Ms.B. Aswini	Programmer	B. Tech
5.	IT Workshop Lab	30	• Dell Vostro, Intel Corei3-8100 CPU@3.60 GHz, 8GB RAM,1TB HDD, LCD Monitor Total: 30. • Projector: Benq MS535P SVGA Projector. • 24 PORT Switches: 04	Semester I Total: 13 hours per week Semester II Total: 19 hours per week Utilization: 50%	Mr.Y. Anil Kumar	Programmer	B. Tech

Table B.6.1: Lab facilities and technical manpower

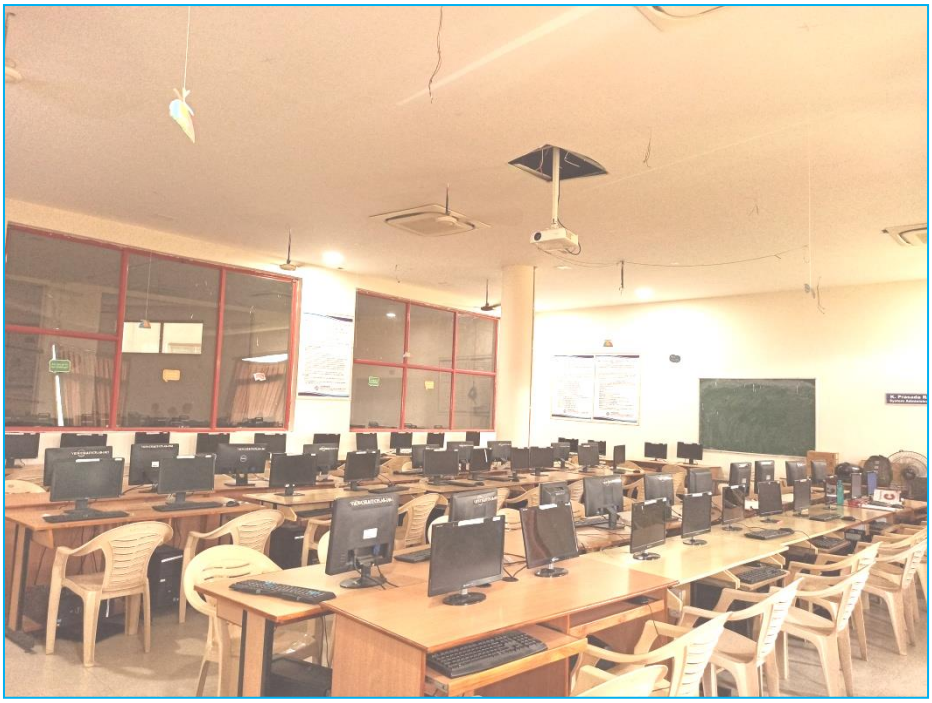


Figure B.6.1.a: C and Data Structures Lab

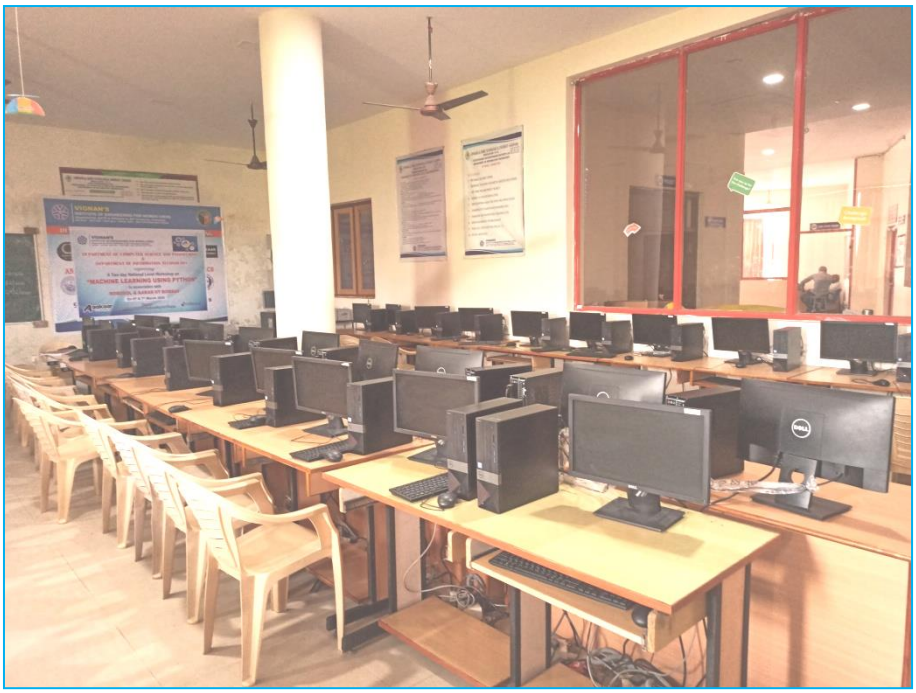


Figure B.6.1.b: Object Oriented Programming Lab

6.2. Additional facilities created for improving the quality of learning experience in laboratories (25)

The computer labs with sufficient number of computers with high speed internet connectivity are available for students use. The laboratories are equipped with UPS, high speed internet and LCD projector for effective demonstration. To make the lab sessions more effective and to enhance the technical and communications skills of the students, additional facilities are provided in the laboratories which are described below.

Sr. No.	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	APSSDC CM Skill Centre of Excellence Lab	36 LAPTOPS ACER TMP249-G2-M IntelCore i5 7200U CPU 2.50 GHz,16 GB RAM and 500 GB HDD	• To improve the skills in emerging technologies. • To learn additional courses beyond the curriculum for continuous improvement. • Placement training.	Utilization: 80% **Certification Courses:** • Google Android Fundamentals Phase – 1 • Android Development Certification • IoT Certification • AWS Skill Guru Workshop • Google Android Fundamentals Phase-2 • Udacity Nano Degree Program for Android Developer • Progressive Web Apps • Multi skill training Program.	Emerging technologies like Android, Data Analytics, Web Development Internet of Things, Gaming applications etc.,	PO1, PO2, PO3, PO5, PO9, PO10, PO12. PSO1, PSO2.

2	Internet of Things (IoT) Lab	The lab is equipped with 30 systems and other equipment sponsored byTexas Instruments.	• To solve the challenges of society and industrial needs with the technology by developing IoT projects.	Utilization: 80% **List of Projects:** • Smart Home Safety System • Rakshana: Women Safety Alarm buzzer system using GPS. • Automatic Street Light Control System • IoT Based Air Pollution Monitoring System Using Arduino • Road Accident Alert System • Industrial Smart Power Strip	Developing applications and prototype models by using IoT.	PO1 toPO6, PO9 toPO12. PSO1,PSO2.
3	Embedded Systems Lab	The lab is equipped with 30 systems, Microcontrollers, Arduino boards and sensors like IR sensor, PIR sensor, ultrasonic sensor, servo motors etc.	• To bring the awareness of embedded systems design tools and hardware programming.	Utilization: 60% **List of Projects:** • Voice based controlled car • Automatic Sanitizer Dispenser • Home Automation using TV Remote • Smart Dustbin	Students perform development activities like product development, embedded prototypes etc. to enhance knowledge in AI and IoT.	PO1 to PO6, PO9 to PO12. PSO1, PSO2.
4	R Studio	IDE for R, a programming language for statistical computing and graphic design.	• For applications where we need analysis on a large data and real time applications.	• IV B. Tech II Semester Projects. • II B Tech I Semester R programming lab.	Data analytics.	PO1 to PO5, PO12. PSO2.

5	Smart lab facility	All the labs are equipped with LCD projector, white board.	• To enhance the teaching learning process.	As per the requirement of lab curriculum.	Students can better understand the logical part of programs and can improve their technical skills to implement.	PO5, PO10.
6	Placement Practice	Placement practice sessions are conducted to the students during T&P activities in free slots of the laboratories.	• To conduct practice sessions for campus recruitment drives • Students can attend mock online tests of top MNCs like TCS Campus Commune, Hackathon etc., to test and improve their technical skills.	• Online exams • Practice sessions	Campus recruitment training and total number of placements.	PO9, PO10, PO12. PSO1, PSO2.
7	Common Internet Facility	Ethernet/Wi-Fi	• Facility for students to self-learning /Seminars/Presentations / Solve assignments /documentation.	Unlimited time.	More knowledge specified in and apart from curriculum, continuous access to learning resources, motivation towards research and exposure to innovations.	PO1 to PO5, PO12. PSO2
8	Virtual lab	Virtual lab websites	• To learn how to use software and hardware resources virtually.	Depends on requirement.	Exposure of students to virtual learning of lab courses	PO1 to PO5 PO12. PSO1, PSO2.

Table B.6.2a: Additional facilities

Figure 6.2.a: APSSDC CM Skill Centre of Excellence Lab

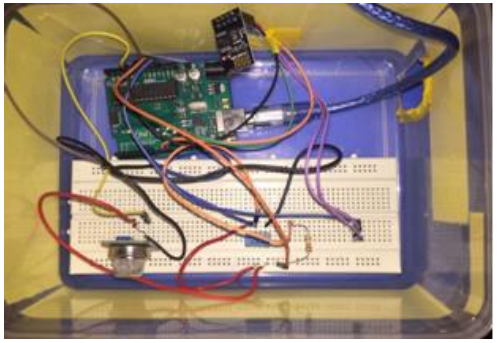
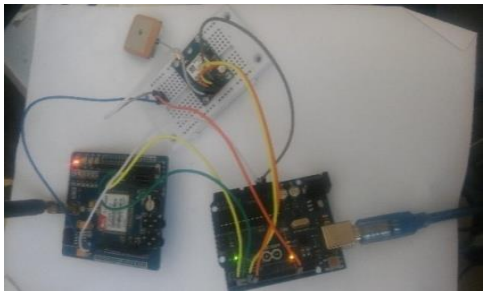
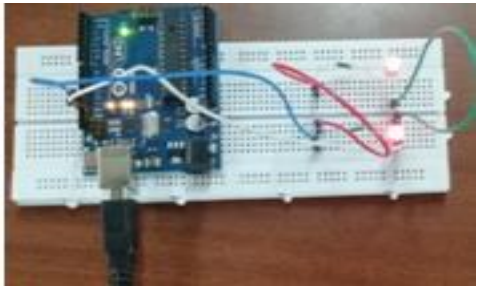
Certification courses done by students in APSSDC CM Skill Centre of Excellence Lab:

Sr. No.	Name of the certification course	Coordinator	Date(s)	No. of registered students	Relevance to POs/PSOs
1	Google Android Fundamentals Phase – 1	A.N.Suresh	07-12-2017 to 09-12-2017	75	PO1 to PO6, PO9, PO12. PSO1, PSO2.
2	Android Development Certification	L. Bhupathi Rao	08-05-2018 to 14-05-2018	21	PO1 to PO6, PO9, PO11, PO12. PSO1, PSO2.
3	IoT Certification	A.N.Suresh	08-05-2018 to 14-05-2018	10	PO1 to PO6, PO9, PO12. PSO1, PSO2.
4	AWS Skill Guru Workshop	I.Raju	30-05-2018 to 31-05-2018	33	PO1 to PO7, PO9, PO11, PO12. PSO1, PSO2
5	Android Development Certification	I. Raju	11-08-2018 to 16-08-2018	69	PO1 to PO6, PO9, PO11, PO12. PSO1, PSO2.

6	Google Android Fundamentals Phase-2	R. Ravi	21-09-2018 to 23-09-2018	48	PO1 to PO6, PO9, PO12. PSO1, PSO2.
7	Udacity Nano Degree Program for Android Developer	R. Ravi	18-01-2019 to 22-01-2019	31	PO1 to PO6, PO9, PO11, PO12. PSO1, PSO2.
8	MSTP (multi skill training program)	R. Ravi	20-08-2019 to 28-02-2020	60	PO1, PO5, PO9, PO12. PSO1, PSO2.
9	Google Android Developer Fundamental Phase-1	B. Haritha Lakshmi	05/03/2020 to 07/05/2020	25	PO1 to PO6, PO9, PO12. PSO1, PSO2.
10	Progressive Web Apps	M. Mamatha Laxmi	06-03-2020 to 07-03-2020	125	PO1 to PO5, PO9, PO12. PSO1, PSO2.

Table B.6.2b: Certification Courses

Projects developed by students in Internet of Things (IoT) Lab:

Sr. No.	Student details	Project Title	Description	Prototype	Relevance to POs and PSOs
1.	Students of IV B.Tech II Sem (2017-18) developed this project as a part for Technical expo. 14NM1A0516-Ch.Karsihma 14NM1A0535-G.Lavanya 14NM1A0513-Ch.Anitha 14NM1A0529-D.Sneha	Smart Home Safety System	This model is used to identify gas leakage like LPG in domestic purpose. It sends an alarm and message to the registered mobile number whenever it senses gas leakage by using MQ2 sensor		PO1 to PO12 PSO1, PSO2
2	Students of IV B.Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0508-A.S.Sirisha 15NM1A0546-K.Madhumitha 15NM1A0514-B.Mounika 15NM1A0543-K.Likitha	Rakshana: Women Safety Alarm buzzer system using GPS.	This device raises alarm and sends message to nearby police station with location when the person press the button in need. In emergency, by pressing the button women can get quick assistance.		PO1 to PO12 PSO1, PSO2
3	Students of IV B.Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0570-M. Neelima 15NM1A05B8-V.Sharmila 15NM1A0571-M. Kusuma 15NM1A0562-K. Supriya	Automatic Street Light Control System	These street lights are used on road sides which glow when any object is detected in its proximity range and automatically turns off when the object passes away.		PO1 to PO12 PSO1, PSO2

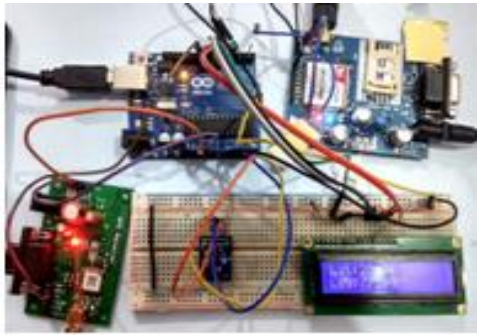
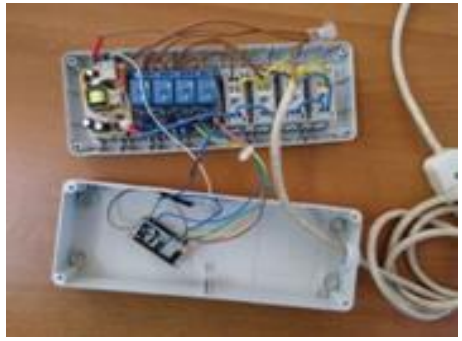
4	Students of IV B.Tech II Sem (2018-19) developed this prototype as their project work 15NM1A0578-P. Sairajeevi 15NM1A0566-M. Sushmitha 15NM1A05A2-Sk. Karishma 15NM1A0569-M. Pavani	IoT Based Air Pollution Monitoring System Using Arduino	This prototype is used to find the pollution in air using IoT. A threshold value is fixed and the buzzer produces sound when the sensed air has PPM value more than the threshold and sends an email to the respective authority.		PO1 to PO12 PSO1, PSO2
5	Students of IV B.Tech II Sem (2018-19) developed this prototype as their project work 16NM5A0504-G. Lakshmi 16NM1A05G1-K. Katyayani 16NM1A05H7-M.T.Akanksa 16NM1A05G3-K.DivyaSri	Road Accident Alert System .	This prototype is used to send information to the nearest police station whenever an accident happens. This prototype is designed to send the information by message using GSM and accident place by using GPS for quick rescue and saving lives		PO1 to PO12 PSO1, PSO2
6	Students of IV B.Tech II Sem (2018-19) developed this prototype as their project work IV B Tech II Sem (2018-19) 15NM1A05E0-K. Gnanaani 16NM5A0509-P. N. Ratnam 15NM1A05C8-D. Geethika 15NM1A05F4-O.M. Keerthi	Industrial Smart Power Strip .	This prototype is used to maintain the switches or controls virtually by using Internet. The controls will be available in the form of mobile application which can be controlled at any time. To make the control ON and OFF on demand, this prototype can be used.		PO1 to PO12 PSO1, PSO2

Table B.6.2.c: IoT Projects

Projects developed by students in Embedded Systems lab:

Sr. No.	Student details	Project Title	Description	Prototype	Relevance to POs and PSOs
1.	Students of IV B.Tech II Sem (2019-20) developed this prototype to participate in technical expo. 15NM1A0556-K.Sushmitha 15NM1A0527-E.Nagajyothi 15NM1A0506-A. Pravallika 15NM1A0540-J.HimaBindhu	Voice based controlled car.	This prototype is used to operate the car through voice based control. The main objective of this model is for physically challenged persons to comfortably drive the car on road.		PO1 to PO12 PSO1, PSO2
2	Students of II B. Tech II Sem (2019-20) developed this prototype to participate in technical expo. 18NM1A0539-G.Roja Devi 18NM1A0548-G.Nandini	Automatic Sanitizer Dispenser	Automatic sanitizer dispenser is a model which is very helpful to sanitize hands with a sanitizer liquid inside a container. Whenever any person is near to the device with his hand under the outlet, it pours few drops on the hand. The main purpose is contactless sanitization of hands		PO1 to PO12 PSO1, PSO2
3	Students of IV B. Tech II Sem (2019-20) developed this prototype to participate in technical expo. 16NM1A05C2-Y.P.lakshmi 16NM1A05A9-S.Sravya	Home Automation using TV Remote	This model is used to effectively utilize the unused controls of the television remote to control other appliance in home. The unused controls in the remote can be merged with other device controls		PO1 to PO12 PSO1, PSO2

4	Students of IV B.Tech II Sem (2019-20)developed this prototype to participate in Techfest. 16NM1A05C2-Y.P.lakshmi 16NM1A05A9-S.Sravya	Smart Dustbin	Smart dustbin is a bin which automatically opens the lid when it senses any person near to it. The advantage of this bin is to put the wastage without touching the lid which ensures hands and infection free disposal of waste		PO1 to PO12 PSO1, PSO2

Table B.6.2.d: Embedded System Projects

6.3 Laboratories: Maintenance and overall ambience

Laboratories: Maintenance

All labs in the Department of Computer Science and Engineering are well equipped and having advanced computing facilities to satisfy the curriculum requirements. The student-computer ratio in the lab session is 1:1. Adequate number of Technical Staff is available for regular maintenance of systems and software. For effective utilization and to monitor periodic maintenance, a Lab Monitoring Committee (LMC) is constituted with Head of the Department as a Chairman and two senior faculty members.

The major responsibilities of LMC are:

- Periodic maintenance of all computer laboratories is done for effective working of all resources.
- The committee members verify the maintenance registers, stock registers, lab schedule, lab manuals and records, resource availability and requirements etc.
- The LMC offers the suggestions and actions for continuous improvement. Figure B.6.3.a shows the process of lab maintenance.

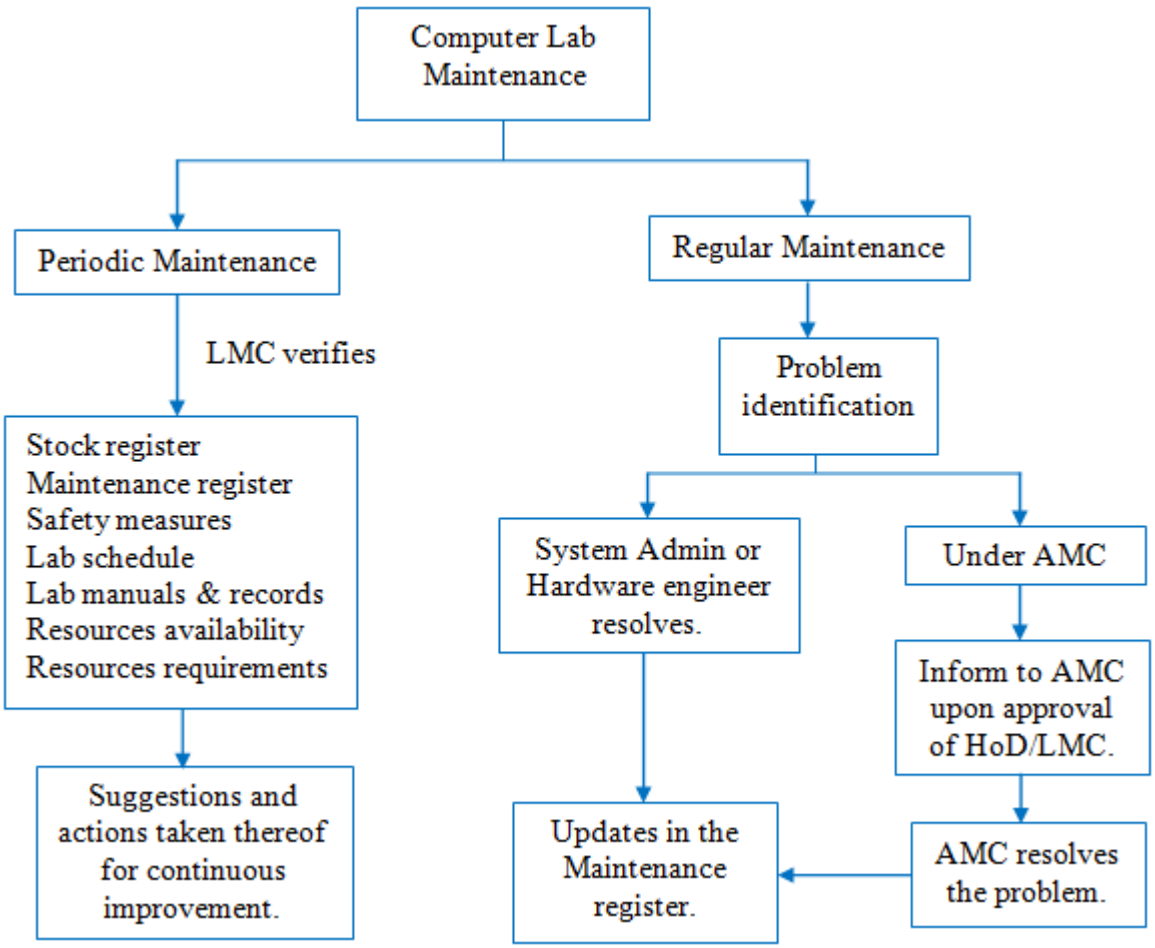


Figure B.6.3.a: Process of Lab Maintenance

- For regular maintenance of the computer laboratories, certain registerssuch as Maintenance register, Stock register, Movement register, Log register and Feedback register are maintained.

  Maintenance Register: The maintenance and log of the consumables and non-consumables is recorded by the system administrators in the maintenance register.

  Stock Register: Stock register is maintained to record all the purchases of software and hardware resources. Institute level computer systems information is also documented in the stock register.

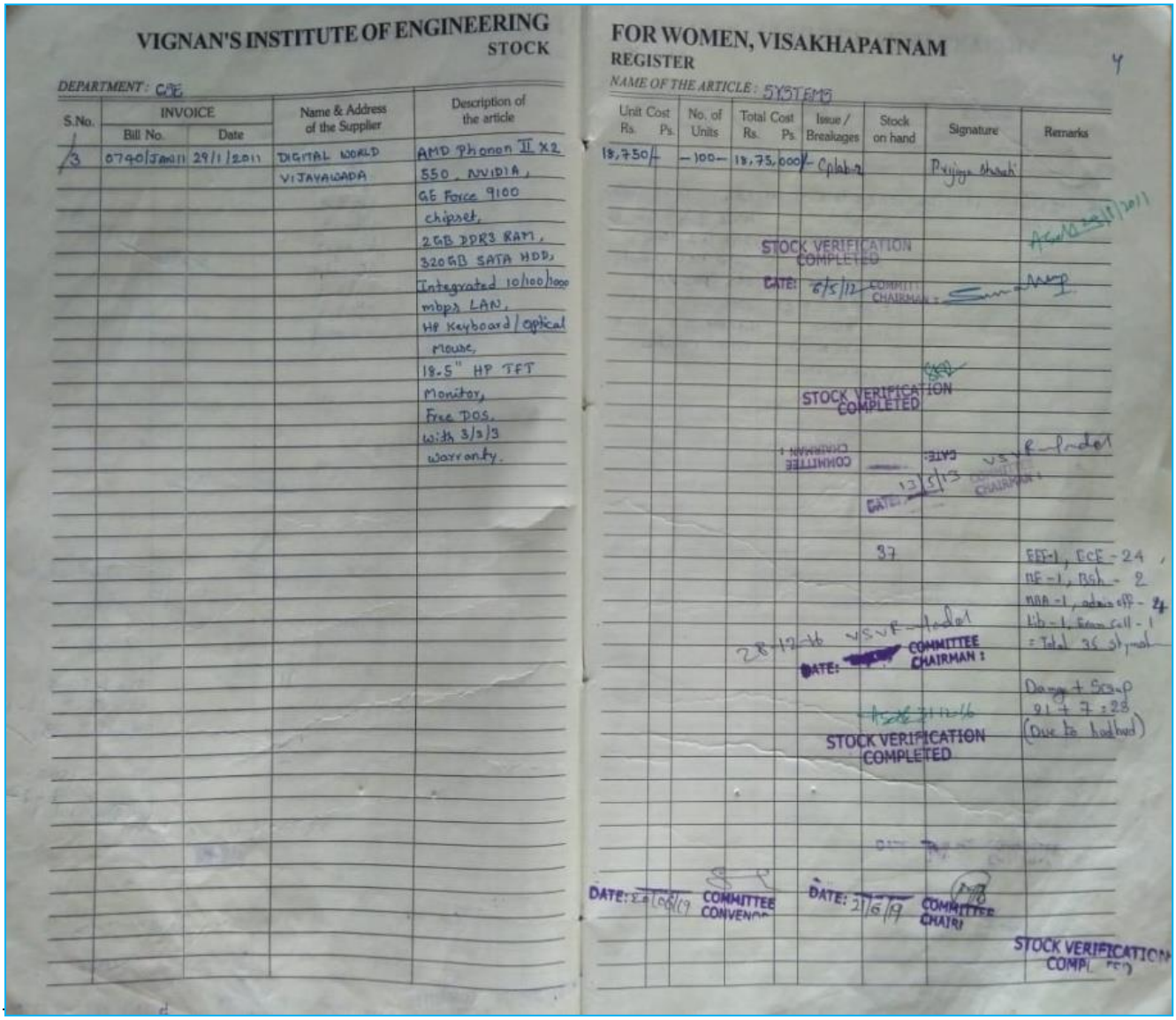
  Movement Register: Movement register is maintained to note the peripherals taken for servicing by AMC. It also contains the record of computer peripherals which are given to other departments.

  Log Register*:* Each laboratory contains a Log register to note login and logout timings of the students.

  Feedback Register: Each laboratory contains Feedback register, which is available to students to represent any issues in the respective laboratory.
- Laboratories are kept open beyond working hours whenever required with necessary technical staff.

Stock Verification Committee:

For every two years Stock Verification Committee will be constituted by the Head of the Institution to audit all the lab equipment's and infrastructure. The committee will submit Deficiency report to the Principal.



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN, VISAKHAPATNAM
STOCK REGISTER

DEPARTMENT : CSE

NAME OF THE ARTICLE : SYSTEMS

S.No.	INVOICE Bill No.	INVOICE Date	Name & Address of the Supplier	Description of the article	Unit Cost Rs. Ps.	No. of Units	Total Cost Rs. Ps.	Issue / Breakages	Stock on hand	Signature	Remarks
3	0790/Jan11	29/1/2011	DIGITAL WORLD VIJAYAWADA	AMD Phenom II X2 550, NVIDIA, GE Force 9100 chipset, 2GB DDR3 RAM, 320GB SATA HDD, Integrated 10/100/1000 mbps LAN, HP Keyboard/optical Mouse, 18.5" HP TFT Monitor, Free DOS, with 3/3/3 warranty.	18,750/-	100	18,75,000/-	Cplab-2		Priyanka Shaik	

STOCK VERIFICATION COMPLETED
DATE: 6/5/12 COMMITTEE CHAIRMAN :

STOCK VERIFICATION COMPLETED

37

28/12/16 V.S.V.P. Yadav
DATE: COMMITTEE CHAIRMAN :

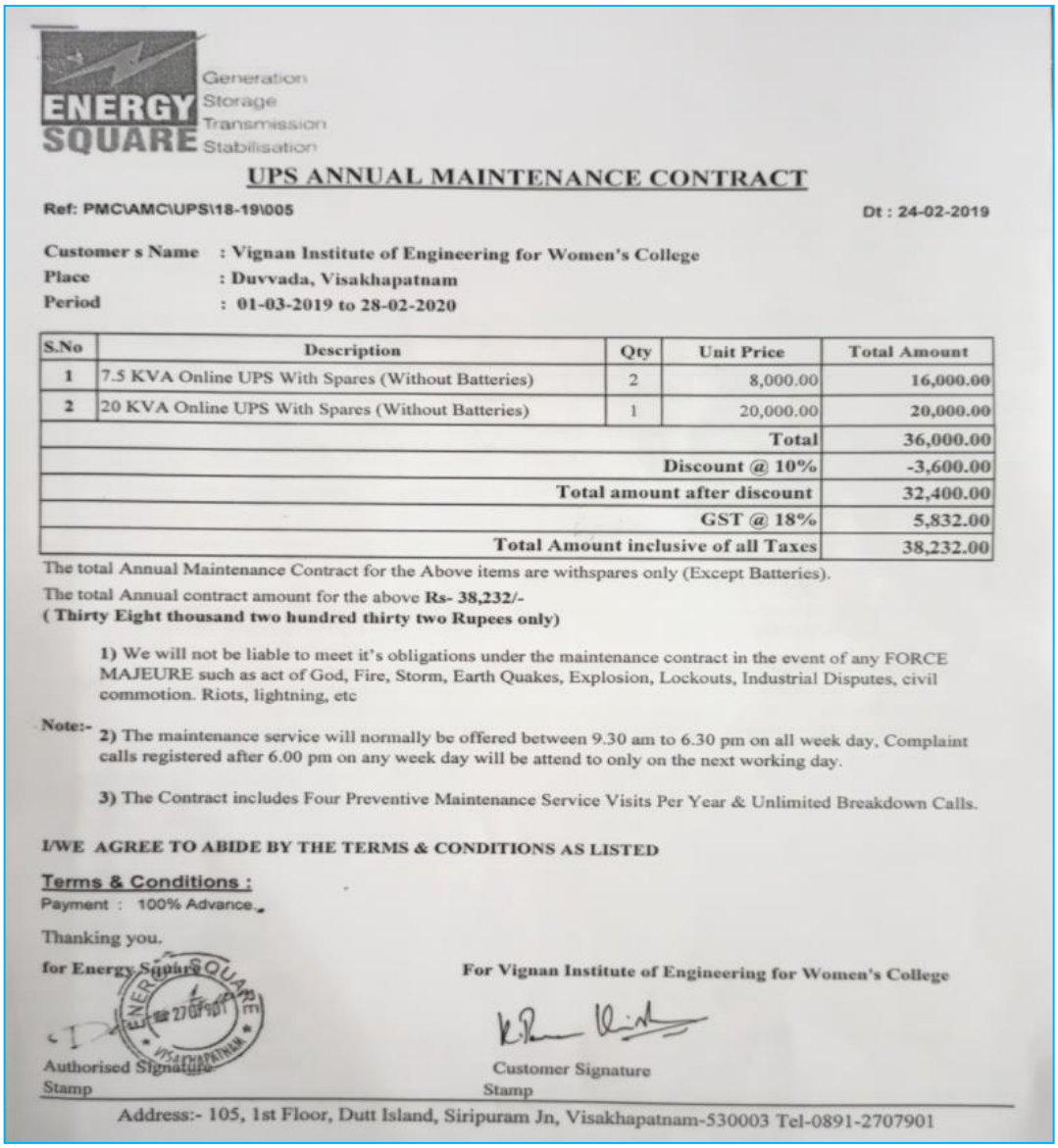
STOCK VERIFICATION COMPLETED

DATE: COMMITTEE CONVENOR

DATE: 21/6/19 COMMITTEE CHAIRP

STOCK VERIFICATION COMPL

Figure 6.3.b: Sample page of Stock Register



ENERGY SQUARE
Generation
Storage
Transmission
Stabilisation

UPS ANNUAL MAINTENANCE CONTRACT

Ref: PMC\AMC\UPS\18-19\005 Dt : 24-02-2019

Customer s Name : Vignan Institute of Engineering for Women's College
Place : Duvvada, Visakhapatnam
Period : 01-03-2019 to 28-02-2020

S.No	Description	Qty	Unit Price	Total Amount
1	7.5 KVA Online UPS With Spares (Without Batteries)	2	8,000.00	16,000.00
2	20 KVA Online UPS With Spares (Without Batteries)	1	20,000.00	20,000.00
			Total	36,000.00
			Discount @ 10%	-3,600.00
			Total amount after discount	32,400.00
			GST @ 18%	5,832.00
			Total Amount inclusive of all Taxes	38,232.00

The total Annual Maintenance Contract for the Above items are withspares only (Except Batteries).

The total Annual contract amount for the above **Rs- 38,232/-**
(Thirty Eight thousand two hundred thirty two Rupees only)

1) We will not be liable to meet it's obligations under the maintenance contract in the event of any FORCE MAJEURE such as act of God, Fire, Storm, Earth Quakes, Explosion, Lockouts, Industrial Disputes, civil commotion. Riots, lightning, etc

Note:-

2) The maintenance service will normally be offered between 9.30 am to 6.30 pm on all week day, Complaint calls registered after 6.00 pm on any week day will be attend to only on the next working day.

3) The Contract includes Four Preventive Maintenance Service Visits Per Year & Unlimited Breakdown Calls.

I/WE AGREE TO ABIDE BY THE TERMS & CONDITIONS AS LISTED

Terms & Conditions :
Payment : 100% Advance.

Thanking you.

for Energy Square

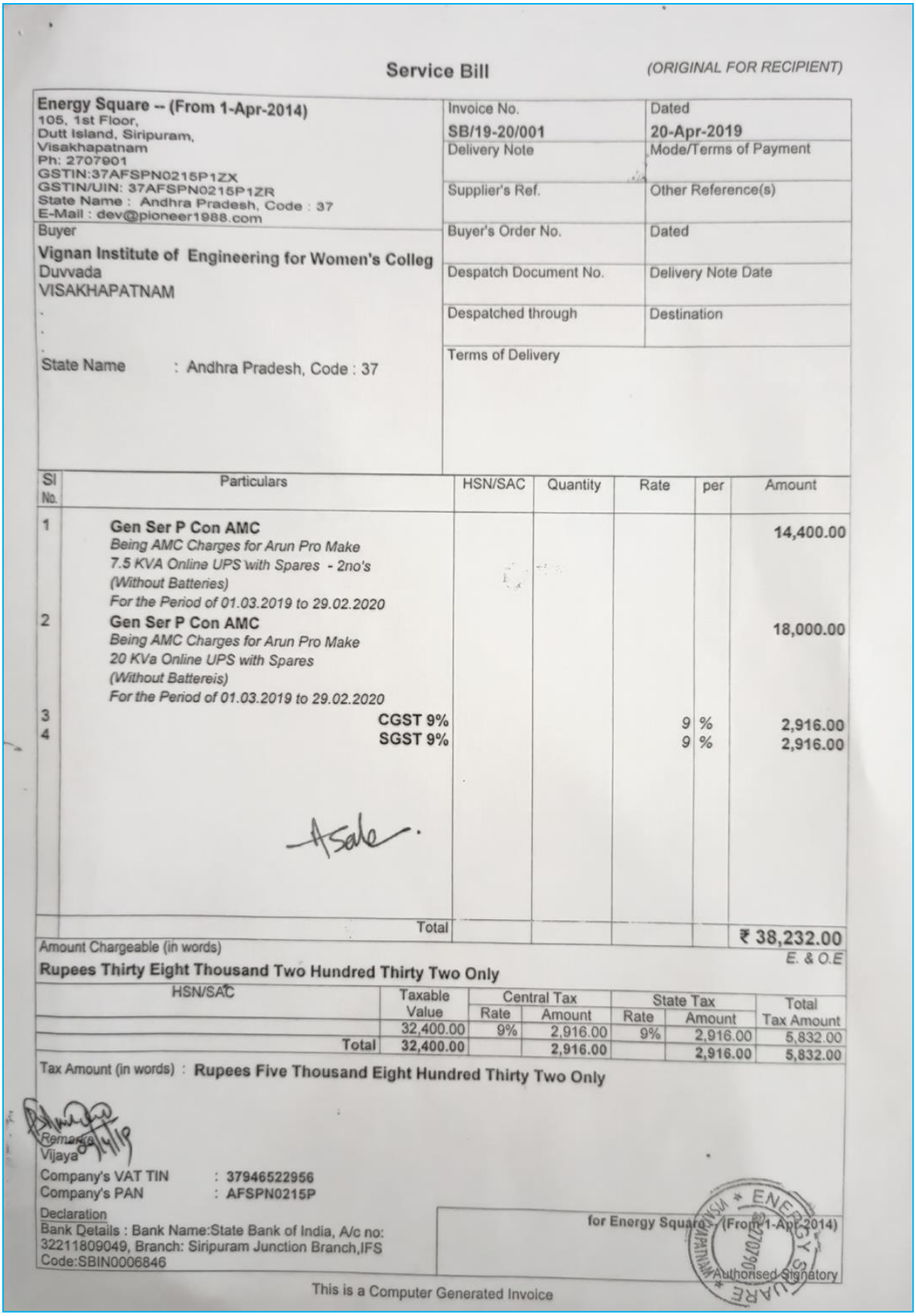
Authorised Signature
Stamp

For Vignan Institute of Engineering for Women's College

Customer Signature
Stamp

Address:- 105, 1st Floor, Dutt Island, Siripuram Jn, Visakhapatnam-530003 Tel-0891-2707901

Figure 6.3.c: Sample bill – AMC of UPS



Service Bill (ORIGINAL FOR RECIPIENT)

Energy Square -- (From 1-Apr-2014)
105, 1st Floor,
Dutt Island, Siripuram,
Visakhapatnam
Ph: 2707901
GSTIN:37AFSPN0215P1ZX
GSTIN/UIN: 37AFSPN0215P1ZR
State Name : Andhra Pradesh, Code : 37
E-Mail : dev@pioneer1988.com

Buyer
Vignan Institute of Engineering for Women's Colleg
Duvvada
VISAKHAPATNAM

State Name : Andhra Pradesh, Code : 37

Invoice No.	Dated
SB/19-20/001	20-Apr-2019
Delivery Note	Mode/Terms of Payment
Supplier's Ref.	Other Reference(s)
Buyer's Order No.	Dated
Despatch Document No.	Delivery Note Date
Despatched through	Destination
Terms of Delivery	

Sl No.	Particulars	HSN/SAC	Quantity	Rate	per	Amount
1	**Gen Ser P Con AMC** *Being AMC Charges for Arun Pro Make* *7.5 KVA Online UPS with Spares - 2no's* *(Without Batteries)* *For the Period of 01.03.2019 to 29.02.2020*					14,400.00
2	**Gen Ser P Con AMC** *Being AMC Charges for Arun Pro Make* *20 KVa Online UPS with Spares* *(Without Battereis)* *For the Period of 01.03.2019 to 29.02.2020*					18,000.00
3	**CGST 9%**			9	%	2,916.00
4	**SGST 9%**			9	%	2,916.00
	Total					₹ 38,232.00

Amount Chargeable (in words) E. & O.E
Rupees Thirty Eight Thousand Two Hundred Thirty Two Only

HSN/SAC	Taxable Value	Central Tax		State Tax		Total Tax Amount
		Rate	Amount	Rate	Amount	
	32,400.00	9%	2,916.00	9%	2,916.00	5,832.00
Total	32,400.00		2,916.00		2,916.00	5,832.00

Tax Amount (in words) : **Rupees Five Thousand Eight Hundred Thirty Two Only**

Remarks
Vijaya

Company's VAT TIN : 37946522956
Company's PAN : AFSPN0215P

Declaration
Bank Details : Bank Name:State Bank of India, A/c no: 32211809049, Branch: Siripuram Junction Branch,IFS Code:SBIN0006846

for Energy Square -- (From 1-Apr-2014)
Authorised Signatory

This is a Computer Generated Invoice

Figure 6.3.d: Sample bill – Service Receipt from AMC

11/21/2018 Jobsheet Details

ME/P/042/FIB

Service Center Address: GLOBAL SERVICE POINT [142636], 204A,MEDICHARLA TOWERS,DWARKANAGAR, VISAKHAPATNAM, Andhra Pradesh Pincode:530001	
E-mail: gangadhar_vizag@yhoo.com	**Phone No.:** 0891-6590278

Customer Name: MR PRAVEEN **Address:** VIJANNA INST OF ENG OFC KAPUJAGGARAJUCA, VISAKHAPATNAM, Andhra Pradesh **Contact No:** 9985063343 **E-mail:**	**Jobsheet Number:** CSP/20181117/1126128	**Physical Jobsheet No.:**
	Jobsheet Creation Date: 17-11-2018	**Jobsheet Creation Time:** 9:21:03
	Model: MF3010B	**Serial No.:** WXM56435
	Service Type: Breakdown	**Service Location:** Onsite
Accessories received:	**Product Warranty:** Out of Warranty	**Service Coverage:** Out of Coverage
	Composite Warranty: NA	**Warranty Override Reason:** NA
	Warranty Type: NA	**Re-Repair Reason:** NA
	Re-Repair: NO	

Product Condition/Observation on product:

Duplicate Consumable Used	NA	Product crossing its 'Maximum product life	NA	Damage on the body of the product	NA
Wrong Media used	NA	Violation of other warrannty provision	NA	Rust/Fungus/Sand	NA
Mishandling/tampering of the product	NA	Battery leakage found	NA	Water Logged/Soiled product	NA
Non standard accessories/parts used	NA	Repair by unauthorized third party	NA	CMOS Damage due to high Intense Light	NA
Others					

Note: Only apparent damage in the product is being noted on the customer service report and actual problem/defect,if any,in the product will be known after the product is examined/opened by the service engineers at service centre.

Engineer Visit Date	Engineer Visit Time	Engineer Out Time	Job Time	Counter Readings	
22-11-18	3:30 Pm	4:00 Pm	1/2 Hour		
Call Completion			Total Job Time	Clear	
Broken call reason	Item	Support		Total	6513

Fault Code	Location Code	Cause Code	Remedy Code

Problem & Cause: PRINTING PROBLEM

Action Taken: NO PROBLEM FOUND WITH PRINTER, PROBLEM FOUND WITH TONER CARTRIDGE, OBTAIN USING DUSTER cartridge

Spares/Items Replaced

Item Description	Item Code	Qty	Unit Price	Amount
Engineer Remarks: NO PROBLEM FOUND WITH PRINTER PROBLEM FOUND WITH TONER CARTRIDGE. INFORMED TO CUSTOMER NEED TO REPLACE NEW TONER CARTRIDGE			Labor Charge	650.00
			Service Tax	
			VAT	
			Total Estimated Cost	650.00

Engineer Name: Masthan Engineer Signature: Masth

I have gone through the terms and conditions mentioned overleaf and hereby give my consent to proceed with repairs as per these terms & conditions and agree to be bound by them. Estimated cost (If any) of repairs (as mentioned above) is approved.

Problem reported has been rectified to my satisfaction

Customer's Signature & seal B Prakash

Customer's Signature & seal B Prakash

Customer feedback for this job: Excellent Good Average Poor

Customer Remarks for this Job

E-mail:customersupport@ca... Visit Us: www.canon.co.in

I hereby Authorize Canon India Pvt Ltd to make call(s), on the Phone/mobile number given in this form, related to after sale service of my product. Such calls may be done by third party, as designated by CIPL in this regard.

* Use only Canon Genuine Cartridges/Toners for product efficiency. Use of Non Genuine Cartridges/Toner shall make warranty of product void.

Figure 6.3.e: Sample bill – Onsite Service Receipt for Printer

Overall Ambience

- All computer laboratories are equipped with state-of-the-art equipment's to meet the requirements of the curriculum.
- All laboratories have enough natural, proper ventilation with tube lights and fan arrangement.
- All laboratories are well furnished.
- Overall ambience of laboratory is good:
  - ✓ All old records and stationery are given for recycling periodically through vendors.
  - ✓ All the damaged CPUs, Monitors and other equipment are disposed to third party vendor as and when they are obsolete.
  - ✓ Every lab is provided with suffice number of dust bins.
  - ✓ Housekeeping team clean the laboratories on regular basis
- Laboratory manuals are prepared and are available in hard copy in each lab.

6.4 Project Laboratory

- The Department provides project laboratory for faculty and students to implement their project ideas as executable projects.
- Project laboratory comprises of 30 well configured systems with following specifications:
  System specifications: Dell Vostro, Intel Corei3-8100 CPU@3.60 GHz, 8GB RAM,1TB HDD.
  Software: Python 3.6, JDK1.8, Anaconda, WEKA, MATLAB, R Studio, IBM Rational Rose, Oracle 10g, Tomcat etc., and basic software's like MS Office, Adobe Reader, WinRAR etc.,
- This lab has an additional feature of ICT includes projector, white board, high speed internet etc. Internet of Things (IoT)and Embedded Systems labs are additional labs provided to students to complete their project work.
- Several projects have been successfully completed by the students at the project laboratory. With the available resources in the project lab, they have been able to conduct investigations in various research areas like Machine Learning, Image Processing, Network Security etc., and developed solutions to the various real time problems.

List of student quality projects CAYm2 (2017-18):

Sr.No.	Regd. No	Name of the students	Project Title	Relevance to POs & PSOs
1	14NM1A0556	Korupolu Revathi	Students technical performance and evaluation system	PO1 to PO12 PSO1, PSO2
	14NM1A0502	Allavarapu Dhineesha		
	14NM1A0531	Dungala Kanakaratnam		
	14NM1A0546	Karri Sowjanya		
2	14NM1A0526	Divvela Uma Maheswari	Performance analysis of Multiple Linear Regression and Artificial Neural Networks on Weather Dataset	PO1 to PO12 PSO1, PSO2
	14NM1A0543	K Lakshmi Prasanna		
	14NM1A0535	Gidla Lavanya		
	14NM1A0538	Gondesi Ojeswani		
3	14NM1A0551	Kolli Madhavi	Implementation of DNA cryptography for Cloud Computing	PO1 to PO12 PSO1, PSO2
	14NM1A0536	Goddi Anusha		
	14NM1A0505	Bandaru Harshavarshini		
	14NM1A0527	D.VaraLakshmiPrasanna		
4	14NM1A0552	KonchadaSahana	A novel Steganography approach for hiding Text in color images using HSI color model	PO1 to PO12 PSO1, PSO2
	14NM1A0511	Budumuru Prasanthi		
	14NM1A0513	Chanchali Anitha		
	14NM1A0557	Kota Gayatri		
5	14N1MA0510	B. Venkata Vasundhara	Removal of image de-trop using diffusion based in painting	PO1 to PO12 PSO1, PSO2
	14NM1A0516	Chokkara Karishma		
	14NM1A0544	Kandregula Sai Mounica		
	14NM1A0520	Dasari Sai Prabha		
6	14NM1A0564	Maddi Sreeja Reddy	Intruder detection in data leakage using Least Significant Bit	PO1 to PO12 PSO1, PSO2
	14NM1A0580	Palli Gayatri		
	14NM1A0570	Mummuluri Rohini		
7	14NM1A05A5	V N S Lavanya	An Able agriculture nursing: The solicitation of wireless sensor networks with IoT.	PO1 to PO12 PSO1, PSO2
	14NM1A05A8	Velagala Poojasri Reddy		
	14NM1A0591	RallapalliAnitha		
	14NM1A0571	MylapalliSravaniDivya		
8	14NM1A0561	Lekkala Jaya Madhuri	Smart Parking System.	PO1 to PO12 PSO1, PSO2
	14NM1A05A9	Vootakuti Subhasri		
	14NM1A0562	LikithaAdari		
	14NM1A0584	Pilyanam Madhuri		
9	14NM1A0560	LandaHemalatha	Abandoned bag detection in video surveillance using image processing	PO1 to PO12 PSO1, PSO2
	14NM1A05A4	Vanimina Renuka		
	14NM1A05A7	Varre Pavani		
	14NM1A0595	SeepanaSanthoshi		
10	14NM1A0577	Obblareddy Sunitha	Real time security system using live video analysis	PO1 to PO12 PSO1,PSO2
	14NM1A05A6	V. Meghana Raja Rajeswari		
	14NM1A0567	MathalaVinisha		
	14NM1A0572	NambariRenusha Yadav		
11	14NM1A0576	Nuthi Venkata Sravani	Finding the associated factors causing chronic	PO1 to PO12 PSO1, PSO2
	14NM1A0573	N.Tejaswini Kala Pavani		

	14NM1A05B1	Yeduru Geetanjali	kidney disease using modified Apriori algorithm	
	14NM1A0559	Kusumanchi Sirisha		
12	14NM1A05E2	M V Padmavathi Hashwitha	A robust image quality enhancement technique Using DWT, SWT and NEDI	PO1 to PO12 PSO1, PSO2
	15NM5A0507	Indugubilli Swathi		
	14NM1A05D6	KapugantiSupraja		
13	15NM5A0508	JerripothulaSravani	Similarity detection in java programming assignments	PO1 to PO12 PSO1, PSO2
	14NM1A05G5	VenigallaTejaswini		
	14NM1A05F6	Sirasapalli Monika		
	13NM1A05B3	Saragadam Vaishali		
14	15NM5A0511	SirikiPuspalatha	A real time face recognition system using Deep Learning	PO1 to PO12 PSO1, PSO2
	14NM1A05D2	Gadiraju Sowmya		
	14NM1A05E4	Nakka Bhavani		
	14NM1A05E8	PenumatchaSridharani		
15	14NM1A05D7	Keerthi Neerukonda	Design and analysis of a novel multi keyword search under secure data storage in cloud server	PO1 to PO12 PSO1, PSO2
	14NM1A05F8	Thamada Uma		
	14NM1A05C1	Bhupathiraju Swetha		
	14NM1A05G7	Yedureswarapu Sri Anjula		

Table B.6.4.a: List of quality projects of CAYm2 (2017-18)

List of student quality projects CAYm1 (2018-19):

Sr.No.	Regd. No	Name of the students	Project Title	Relevance to POs& PSOs
1	15NM1A0559	Kotipalli Madhavi	Collaborative DDOS Mitigation based on Blockchain.	PO1 to PO12 PSO1, PSO2
	15NM1A0532	Gude Kalyani		
	15NM1A0515	Boida Padmavathi		
	15NM1A0526	Eada Mercy Joy		
2	15NM1A0503	AndavarapuDivya	Strip based currency Recognition System	PO1 to PO12 PSO1, PSO2
	15NM1A0516	BonuPavani		
	15NM1A0536	GunnaMoulika		
	15NM1A0505	Anjum Javeria		
3	15NM1A0556	KonagallaSushmitha	Smart Refrigerator using IoT.	PO1 to PO12 PSO1, PSO2
	15NM1A0527	EdubilliNagajyothi		
	15NM1A0506	Annu Pravallika		
	15NM1A0540	JinagaHimabindu		
4	15NM1A0517	Chapa Bhanu Sri	K-Harmonic Means clustering algorithm for Data Stream in Agricultural IoT.	PO1 to PO12 PSO1, PSO2
	15NM1A0509	Asi Kavya Reddy		
	15NM1A0544	KallepalliRishitha		
	15NM1A0524	Dittakavi S PragnaSree		
5	15NM1A0551	KoduruTejaSree	Zolertia z1 energy usage simulation with Coojasimulator	PO1 to PO12 PSO1, PSO2
	15NM1A0542	Kadiyam Sudha Lakshmi		
	15NM1A0552	Kollepara Pallavi		
	15NM1A0520	DakiSowjanya		
6	15NM1A0554	KolusuKiranmai	Controlling mouse operations through hand gestures	PO1 to PO12 PSO1, PSO2
	15NM1A0538	Issai Bhargavi		
	15NM1A0529	Gorli Ramya		
7	15NM1A0518	Chindada Lakshmi Sree	Traffic congestion Alert System and Vehicle	PO1 to PO12
	15NM1A0531	G Sai Saranya		

	15NM1A0510	Bantu Pavani	Classification	PSO1, PSO2
	15NM1A0512	B Kokila Hima Chandana		
8	15NM1A05B5	T. Pooja Naga Mounika	Rating prediction based on social sentiment from textual reviews	PO1 to PO12 PSO1, PSO2
	15NM1A0596	Ruby Kumari		
	15NM1A0576	N Lalitha Nagasai		
	15NM1A05A1	Shaik AshiaParvine		
9	15NM1A05C0	Vysyaraju Priyanka	Emotion based music player using SVM classifier	PO1 to PO12 PSO1, PSO2
	15NM1A0563	Lagudu Anuradha		
	15NM1A0561	KukkadapuPratyusha		
	15NM1A0595	Reddy Aruna Kumari		
	15NM1A05C1	Yamali Bharathi		
10	15NM1A0574	Nelluri Madhuri Sowjanya	Fault Detection in Fan using IoT And Data Mining	PO1 to PO12 PSO1, PSO2
	15NM1A05A9	SuvvariVineetha		
	15NM1A0582	Penki Ashalatha		
	15NM1A0575	NethalaSowmyalatha		
11	15NM1A0578	Pagadala Sai Rajeevi	IoT Based Air Pollution Monitoring System Using Arduino	PO1 to PO12 PSO1, PSO2
	15NM1A0566	MallemSusmitha		
	15NM1A05A2	Shaik Karishma		
	15NM1A0569	Mandarapu Pavani		
12	15NM1A0599	Seeramsetty Kavya	An efficient attendance management system based on face recognition	PO1 to PO12 PSO1, PSO2
	15NM1A0567	Mallina Kavitha		
	15NM1A05B3	Tentu Anusha		
	15NM1A0590	Pragada Sujatha		
13	15NM1A0584	PentakotaPrathyusha	Exploration of college information through chatbot.	PO1 to PO12 PSO1, PSO2
	15NM1A05B7	Vajja Sri Kavya		
	15NM1A0577	O N Durga Vara Manisha		
	15NM1A05B6	Tutta Vandana		
14	15NM1A0570	MasabattulaNeelima	Street light that glows on detecting the vehicle movement using image processing	PO1 to PO12 PSO1, PSO2
	15NM1A05B8	Vana Sharmila		
	15NM1A0571	Munasa Kusuma		
	15NM1A0562	KunchaSupriya		
	15NM1A05A3	Shaik Sana Sharifa		
15	15NM1A0565	MallaNavya	Instinctive media player using OpenCV.	PO1 to PO12 PSO1, PSO2
	15NM1A0573	NadimpalliSravya		
	15NM1A0589	Poluparthi Ramya		
	15NM1A0568	M Krishna Swetha		
16	15NM1A0598	Salapu Mohini Priyanka	Robust Iris recognition using Daugman'sLocalization.	PO1 to PO12 PSO1, PSO2
	15NM1A0585	PillaHima Sushma		
	15NM1A0594	RangalaTrilakshmi		
	15NM1A05B4	Thota Pravallika		
17	15NM1A0586	Pokuri Sri Lakshmi Kavya	User identification across multiple social networks	PO1 to PO12 PSO1, PSO2
	15NM1A05A0	SeerapuGyana Priya		
	15NM1A0564	Macharla Harika		
	15NM1A05A4	S N S T Mahalakshmi		
18	16NM5A0508	NagireddySowjanya	Early detection of cancer using Data Mining Techniques	PO1 to PO12 PSO1, PSO2
	16NM5A0503	Ellapu Yamini Priyanka		
	15NM1A05E2	Kotagiri Sneha		
	15NM1A05C3	B Deepika		
19	15NM1A05E1	K Laxmi Venkata Lahari	Kinship verification	PO1 to PO12 PSO1, PSO2
	15NM1A05C5	Dady Lalita		

	15NM1A05H6	Kalla Ganga Ratnam		
	15NM1A05F5	P Deekshita		
20	15NM1A05H5	Vurukooti Venkata Pavitra	A hierarchical approach for rain or snow removing in a single color image	PO1 to PO12 PSO1, PSO2
	14NM1A05C6	Dally		
	15NM1A05D4	Gollavilli Hema Anasari		
	15NM1A05D6	GrandhiMahathi		
21	15NM1A05E5	Y. Lakshmi Soujanya	Face detection and age recognition using Viola Jones algorithm	PO1 to PO12 PSO1, PSO2
	15NM1A05G5	Rompalli Mounika		
	15NM1A05F1	Muddada Gayathri		
	15NM1A05C7	Dantuluri Ramya Sree		
22	15NM1A05E0	KallempudiGnanamai	Industrial Smart Power Strip	PO1 to PO12 PSO1, PSO2
	16NM5A0509	PotlaNookaratnam		
	15NM1A05C8	DayalaGeethika		
	15NM1A05F4	Ommi Mohana Keerthi		

Table B.6.4.b: List of quality projects of CAYm1 (2018-19)

List of student quality projects of CAY (2019-20):

Sr.No.	Regd. No	Name of the students	Project Title	Relevance to POs &PSOs
1	16NM1A0522	Borigi Bhanu Sree	Performance evaluation of Machine Learning Algorithms for disease prediction system	PO1 to PO12 PSO1, PSO2
	16NM1A0504	A. Sai Vaishnavi		
	16NM1A0536	G.Mounika		
	16NM1A0520	Piridi Anjali Sowgandhi		
	16NM1A0506	Anjali Bondhi		
2	16NM1A0551	Kakara Padmavathi	Analyzing and predicting Songs Using Machine Learning	PO1 to PO12 PSO1, PSO2
	16NM1A0549	JagginaDivya		
	16NM1A0546	G.LakshmiTulasi		
	16NM1A0558	K.Santoshi		
3	16NM1A0505	Sowmya Sri Ande	Detection of money laundering in online social networks	PO1 to PO12 PSO1, PSO2
	16NM1A0554	K. Mary Prathyusha		
	16NM1A0554	K. Mary Prathyusha		
	16NM1A0538	G. Rupa SanthiSree		
	16NM1A0531	D.Sirisha		
	16NM1A0554	K. Mary Prathyusha		
4	16NM1A0525	Ch.Deekshitha	A three-layer privacy preserving storage scheme for providing security	PO1 to PO12 PSO1, PSO2
	16NM1A0560	K. Chaturya		
	16NM1A0557	K. Amrutha Sarvani		
	16NM1A0559	K. Sai Sadhana		
5	16NM1A0502	Aishwarya Gantayath	Enhancing ADAS by detecting weather conditions using Machine Learning	PO1 to PO12 PSO1, PSO2
	16NM1A0511	B. Harika		
	16NM1A0519	B.Suryateja		
	16NM1A0511	B. Harika		
6	16NM1A0510	Atta Lavanya	Age estimation by face detection using Convolution Neural Networks.	PO1 to PO12 PSO1, PSO2
	16NM1A0550	J.Poornima		
	16NM1A0530	D. Vandana Sri		
	16NM1A0518	Beramamala Sridevi		

7	16NM1A0541	G. Anusha	Plant disease detection using CNN.	PO1 to PO12 PSO1, PSO2
	16NM1A0528	D.Jyothsna		
	16NM1A0562	K. S. L. Prasanna		
	16NM1A0541	G. Anusha		
	16NM1A0507	A.Leelaveni		
8	16NM1A05B3	P.Triveni	Diabetic retinopathy detection from retinal images using Machine Learning Techniques	PO1 to PO12 PSO1, PSO2
	16NM1A05B6	U.Deepika		
	16NM1A0599	R.Anuradha		
9	16NM1A05C2	Y Prasanna Lakshmi	Phishing URLs detection system using Lexical Feature Analysis	PO1 to PO12 PSO1, PSO2
	16NM1A0570	ManasaSagori		
	16NM1A0567	L. Vineetha		
	16NM1A0585	ParapatiNeelaveni		
10	16NM1A0576	MumminaPravalika	Sentiment analysis using GST on polarity classification	PO1 to PO12 PSO1,PSO2
	16NM1A05A3	S. Snigtha		
	16NM1A05B4	Tummapala Jaya		
	16NM1A05A1	RepakaSravani Sandhya		
11	16NM1A05C5	Yelleti Haritha	A secure approach for communication in mobile Adhoc Networks	PO1 to PO12 PSO1, PSO2
	16NM1A0574	MattaparthiSamyuktha		
	16NM1A05B5	T. Kusuma Sarika		
12	16NM1A05A9	S Sravya	Fake news detection and comparison using Machine Learning Algorithms	PO1 to PO12 PSO1, PSO2
	16NM1A0587	Yamini Patro		
	16NM1A05C6	YerramsettyVasantha		
13	16NM1A05A2	SabbavarapuSuguna	Redundancy control data driven approach for cluster based Wireless Sensor Networks	PO1 to PO12 PSO1, PSO2
	16NM1A05A4	SakalabathulaJyothsna		
	16NM1A0597	PotnuruAnkitha		
14	16NM1A05D2	Bagi Sai Keerthi	Ensemble clustering using DBSCAN and HAC	PO1 to PO12 PSO1, PSO2
	16NM1A05D5	Bodda Jhansi Lakshmi		
	16NM1A05E8	GangupamPrashipta		
	16NM1A05E5	Gajjela. Nithisha		
15	16NM1A05C9	AdariVindyaSree	A novel Steganography technique to embed SST encrypted message using PGLM.	PO1 to PO12 PSO1, PSO2
	16NM1A05H6	TamaranaNishitha		
	16NM1A05H7	M. Tirumala Akanksha		
	16NM1A05C7	A.DeepikaRatnanjali Devi		
	16NM1A05H2	SalapuDivya		
16	16NM1A05G8	P Tanmay	Smart crawler: A two stage framework for crawling deep websites.	PO1 to PO12 PSO1, PSO2
	16NM1A05G9	Pilla Harshika		
	16NM1A05D9	Ch.Venkata Pravallika		
	16NM1A05G1	KommojuKatyayani		
17	16NM1A05G7	M. Keerthi	Food calorie estimation and auto bill generation for grocery products using Yolo object detection.	PO1 to PO12 PSO1, PSO2
	17NM5A0507	Majji Kasturi		
	16NM1A05H1	R. LochanaSaimamba		
	16NM1A05C8	A.Anusha		
18	17NM5A0505	Ganagalla Anusha	Reduce routing overhead in secure Mobile Adhoc	PO1 to PO12 PSO1, PSO2
	17NM5A0510	SavalapuGirija		

	17NM5A0501	A. Rajeswari Laxmi	Network	
	16NM1A05E6	Galla. Hyndavi		
19	16NM1A05D4	B Sai Sowmya	Machine learning approach for forecasting crop yield based on climatic parameters.	PO1 to PO12 PSO1, PSO2
	16NM1A05D8	ChekuriDivya Sri		
	17NM5A0508	PedapatiBala Rama Jyothi		
	16NM1A05E4	Doki Meghana		
20	16NM1A05G2	Kukra Usha	Pneumonia detection by X-ray images using Deep Learning through CNN.	PO1 to PO12 PSO1, PSO2
	16NM1A05G0	Kodali Sri Harsha		
	17NM5A0511	Surada Rajeswari		
	16NM1A05D6	B.V.S.S.Madhuri		
21	17NM5A0512	U. Indhira	Smart rendering news article reader	PO1 to PO12 PSO1, PSO2
	16NM1A05E9	Guntureddy Kusuma		
	16NM1A0F58	Hima Bindu		
	16NM1A05E0	Ch. Sai Rakshitha		
22	16NM1A05E7	Galla Mounika	Object match swapping detection of facial landmarks using local based information.	PO1 to PO12 PSO1,PSO2
	16NM1A05F7	Kasu Anjali		
	17NM5A0506	GeddamDurgabhavani		
	16NM1A05D1	Budda Shivani		
23	16NM1A05H3	Sathvika R	Handwritten digit recognition and text conversion using MNIST dataset.	PO1 to PO12 PSO1, PSO2
	16NM1A05F6	Kavya Sree. K		
	16NM1A05F5	Kalla Raga Deepika		
	16NM1A05H9	Vennela Satya Priyanka		
24	16NM1A05E3	Dharmala Jhansi Reddy	Secure key de-duplication using Convergent Key Encryption	PO1 to PO12 PSO1, PSO2
	16NM1A05G3	KunisettyDivyasri		
	16NM1A05F0	Gunuru Deva Harshini		
	16NM1A05G5	M. Nikitha		
25	16NM1A05F2	J. Deekshitha	Driver's fatigue detection system	PO1 to PO12 PSO1, PSO2
	17NM5A0514	V VVenkataSaieswari		
	16NM1A05F4	K. Monika		
	16NM1A05H4	S. Jasmine		
	14NM1A05D8	K.Srilekhya		
26	16NM1A0542	G. Priyanka	Attendance system based on face recognition	PO1 to PO12 PSO1, PSO2
	16NM1A0545	G. Devi		
	16NM1A0517	Beela Yajna Shireesha		
	16NM1A0543	G.Mounika		
27	16NM1A05B2	SahithiTotharamudi	Replenish security through carp technology.	PO1 to PO12 PSO1,PSO2
	16NM1A05C0	VelagaPrathyusha		
	16NM1A05C1	Vurukuti Keerthi		
	16NM1A0583	Palakurthi Anusha		
28	16NM1A0566	Lagudu Anusha	Bot for Atari games using Reinforcement Learning	PO1 to PO12 PSO1, PSO2
	16NM1A0572	Manne Geetha Sri		
	16NM1A0565	KurellaNavyaSree		
	16NM1A0582	Nisha Vincent		
29	16NM1A0533	Dunna Yamuna	Crack detection on concrete surfaces using Image Processing.	PO1 to PO12 PSO1, PSO2
	16NM1A0563	Bhavana Koyya		
	16NM1A0501	Ahamed Unnisa		

	16NM1A0503	Soundarya Ampolu		
30	16NM1A0588	Vasudha P	Test paper score extraction and accumulation based on Digital Image Processing.	PO1 to PO12 PSO1, PSO2
	16NM1A05B8	V K Kanaka Mahalakshmi		
	16NM1A0564	Kulla Sai Siri Sowjanya		
	16NM1A0578	Musudi Poorna Jyothsna		

Table B.6.4.c: List of quality projects of CAY (2019-20)

The outcome of the Project Laboratory is:

- Students developed innovative and real time projects in latest technologies like IoT, Data Mining, Machine learning etc.
- For the CAY 2019-20, students developed projects using Machine learning algorithms for providing solutions towards health and societal issues.
- For the CAYm1 2018-19, students developed prototypes in IoT like Smart Dustbin, Air Pollution Monitoring System, Road Accident Alert System etc., to provide solutions for environmental issues.
- For CAYm2 2017-18, projects based on Network Security, Image processing are developed to solve the security issues.

Student Research Publications:

- The Project Laboratory is used to enhance the research activities among both students and faculty.
- Faculty motivates the students to publish the papers in referred journals. The following are the publications by students in Project laboratory:

Sr. No.	Name of the author	Title of the paper	Journal name	Volume/ Issue ISSN, Month & Year	Relevance to POs& PSO
1	G.Sailaja B. Niharika V. M Chandana V.Bhavya Sri	Distributed Metadata Management for large storage systems using Hierarchical Bloom Filter Arrays	Parishodh Journal	Volume 9 Issue 3 2347-6648 March 2020	PO1 to PO12 PSO1, PSO2
2	D. Jhansi Reddy K. Divya Sri G. Deva Harshini M. Nikitha	Secure Key-Deduplication using Convergent Key Encryption	Parishodh Journal	Volume 9 Issue 3 2347-6648 March 2020	PO1 to PO12 PSO1, PSO2
3	U.Indhira G.Kusuma K. Hima Bindu	Smart Rendering News Article Reader	International Journal of Creative	Volume 8 Issue 4 2320-2882	PO1 to PO12 PSO1, PSO2

	Ch. Sai Rakshitha		Research Thoughts	April 2020	
4	V. Pratyusha V. Keerthi T. Sahithya P. Anisha M. Roshini	Replenish Security through Carp Technology	International Journal of Analytical and Experimental Modal Analysis	Volume 12 Issue 4 0886-9367 April 2020	PO1 to PO12 PSO1, PSO2
5	Ch.S.L.Navya Bharathi Ch.Ramya K.Chinni K.SaiPraneetha	Retrieval of featured images using Face Detection	Mukt Shabd Journal	Volume 9 Issue 5 2347-3150 May 2020.	PO1 to PO12 PSO1, PSO2
6	A.Soundarya K.Bhavana D.Yamuna Ahmed Unnisa	Crack detection on concrete surfaces using Image Processing	International Journal of Creative Research Thoughts	Volume 8 Issue 5 2320-2882 May 2020.	PO1 to PO12 PSO1, PSO2
7	K.Usha K.Sri Harsha S.Rajeswari B.V.S.S. Madhuri	Pneumonia detection by X-ray images using Deep learning through CNN	Journal of XIAN University of architecture and Technology	Volume 12 Issue 5 1006-7930 May 2020.	PO1 to PO12 PSO1, PSO2
8	T.Jaya R. Sravani Sandhya M. Pravallika S. Snigtha	Sentimental Analysis on GST using Polarity Classification	International Research Journal	Volume 7 Issue 5 2395-3150 May 2020.	PO1 to PO12 PSO1, PSO2
9	Atta Lavanya Dasari Vandana Bera Sridevi Jajula Poornima	Age Estimation by Face Detection using Convolution Neural Networks	Advanced Science Letters	Volume 26 Issue 05 1936-7317 May 2020.	PO1 to PO12 PSO1, PSO2
10	M. Keerthi M. Kasturi R. L Saimamba A. Anusha	Food Calorie estimation and auto bill generation for grocery products using YOLO Object Detection	Journal of Xi'an University of Architecture and Technology	Volume 12 Issue 5 1006-7930 May 2020.	PO1 to PO12 PSO1, PSO2
11	Ch.Deekshitha K. Amrutha Sarvani K. Sadhana K. Chaturya	A three Layer privacy preserving storage scheme for providing security	Journal of Creative Research Thoughts	Volume 8 Issue 5 2320-28820 May 2020.	PO1 to PO12 PSO1, PSO2
12	S Sravya P Yamini Y Vasantha P Pooja	Fake News Detection and Comparison using Machine Learning Algorithms	International Journal of Research and Analytical Reviews	Volume 7 Issue 2 2349-5138 May 2020.	PO1 to PO12 PSO1, PSO2

13	G Aishwarya B Niharika B Suryateja B Harika	Enhancing advance driver assistance System by detecting weather conditions using Machine Learning	International Journal of Research and Analytical Reviews	Volume 7 Issue 2 2349-5138 May 2020.	PO1 to PO12 PSO1, PSO2
14	K. Yogitha J Swetha G. Praharsha Chakka Swapna	Offline handwritten character recognition using Neural Network	MuktShabd Journal	Volume 9 Issue 4 2347-3150 May 2020.	PO1 to PO12 PSO1, PSO2
15	G. Mounika K. Anjali Reddy Durga Bhavani B. Shivani	Object match swapping detection of Facial Landmarks using local-based information	International Journal of Analytical and Experimental Modal Analysis.	Volume 12 Issue 4 0886-9367 May 2020.	PO1 to PO12 PSO1, PSO2
16	P.Soumya N. Bhagya Lakshmi P. Jyothi Priya Y. Sriya	An Efficient Transaction Memory Storage Management Model for Images	MuktShabd Journal	Volume 9 Issue 5 2347-3150 May 2020	PO1 to PO12 PSO1, PSO2
17	M.Samyukta N.Srianjini T.Kusuma Sarika Y.Haritha	A Secure Approach for Communication in Mobile Adhoc Networks	Advanced Science Letters Journal	Volume 26 Issue 5 1936-6612 May 2020	PO1 to PO12 PSO1, PSO2
18	G.Anusha S.Girija Rajeswari Lakshmi G.Hyndavi	Reducing the routing overhead in secure mobile ADHOC networks	International Journal of Engineering Research and Technology	Volume 9 Issue 5 2278-0181 May 2020	PO1 to PO12 PSO1, PSO2
19	A VindyaSree SalapuDivya A D R Devi M T Akanksha	A Novel Steganographic Technique to embed SST encrypted message using PGLM	MuktShabd Journal	Volume 9 Issue 5 2347-3150 May 2020	PO1 to PO12 PSO1, PSO2
20	D.S. Haritha K. V Lakshmi D. Vasantha P. Bhargavvi	Hiding of CAPTCHA in a colour image using FNP Algorithm	MuktShabd Journal	Volume 9 Issue 5 2347-3150 May 2020	PO1 to PO12 PSO1, PSO2
21	G N S Lalitya G K Sowmya I Bhagyalakshmi B SoniyaShyne	Multimedia content protection system for Cloud Storage	International Journal of Research and Analytical Reviews	Volume 7 Issue 2 2348-1269 May 2020	PO1 to PO12 PSO1, PSO2
22	D. Sirisha G R Santhi Sri K M Prathyusha A Sowmya Sri	Detection of Money Laundering in Online Social Networks	MuktShabd Journal	Volume 9 Issue 5 2347-3150 May 2020	PO1 to PO12 PSO1, PSO2

23	P. Harshitha P. Manasa R. Sai Priya M. Joshna	Traffic Sign Detection using Convolutional Neural Networks	International Journal of Computer Science and Technology	Volume 11 Issue 2 0976-8491 June 2020.	PO1 to PO12 PSO1, PSO2
24	P.VeenaVaibhavi P.GunaVarshini P.Ankitha P.Lavanya	Redundancy Control Data - Driven Approach for Cluster based Wireless Sensor Networks	International Journal of Computer Science and Technology	Volume 11 Issue 5 229-4333 June 2020	PO1 to PO12 PSO1, PSO2
25	B.Jhansi Lakshmi M. Roopa Sri B. Sai Keerthi G. Nithisha G.Prashiptha	Ensemble clustering using DBSCAN and HDBSCAN	Journal of Xi'an University of Architecture & Technology	Volume 12 Issue 5 1006-7930 June 2020	PO1 to PO12 PSO1, PSO2

Table B.6.4.d: Publications from Project Laboratory

Figure B.6.4: Project Laboratory

Student achievements:

- With the available research facilities in the project laboratory students got selected for various organizations like Microsoft WISE program and Mission R&D and exhibited their excellence.
- The following are the details of the Microsoft WISE program selected students.

Sr. No.	Regd. No.	Name of the Student	Date(s) of event	Institution Name	Relevance to POs/PSOs
1.	17NM1A0515	B. Harshini	27-09-2019 to 18-09-2020	Microsoft, Hyderabad	PO4, PO9, PSO1, PSO2
2.	17NM1A0557	G. Madhu Sri	27-09-2019 to 18-09-2020	Microsoft, Hyderabad	PO4, PO9, PSO1, PSO2
3.	16NM1A0512	B. Niharika	27-09-2018 to 18-09-2019	Microsoft, Hyderabad	P04, PO5, P09, PSO1, PSO2
4.	15NM1A0559	K. Madhavi	18-10-2017 to 24-08-2018	Microsoft, Hyderabad	P04, PO5, P09, PSO1, PSO2
5.	15NM1A0556	K. Sushmitha	18-10-2017 to 24-08-2018	Microsoft, Hyderabad	P04, PO5, P09, PSO1, PSO2

Table B.6.4.e: Microsoft WISE program selected students

- The following are the details of the Mission R&D program selected students.

Sr. No.	Regd. No.	Name of the Student	Date(s) of event	Institution Name	Relevance to POs/PSOs
1.	17NM1A0509	A. Sri Rekha	27-09-2019 to 18-09-2020	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
2.	17NM1A0530	Ch. Alekya	27-09-2019 to 18-09-2020	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
3.	17NM1A0560	J. Kumari	27-09-2019 to 18-09-2020	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
4.	16NM1A0512	B.Niharika	17-09-2018 to 18-09-2019	GVP, Visakhapatnam	PO4, PO9, PSO1, PSO2
5.	15NM1A0559	K. Madhavi	18-10-2017 to 24-08-2018	GVP, Visakhapatnam	P04, PO5, P09, PSO1,PSO2

Table B.6.4.f: Mission R&D program selected students

- Most of the students are interested to participate in various technical events. To prove their talent, this project laboratory aided them with required software and hardware resources. Few of the awards receiving events are listed below:

Sr. No.	Regd. No.	Name of the Student	Date(s)	Event Name	Institution Name	Awards	Relevance to POs &PSOs
1.	17NM1A0568	K. Sahitya	23-12-2019	Hack AI on Health	Medi valley, World Incubation Hub Amtz Campus	4th Prize	PO4,PO5, PO9. PSO1, PSO2.
2.	17NM1A0589 17NM1A0564 17NM1A05A1 17NM1A0574	K.Hema SaiHarsitha M.S.Bhavana K. Thanuja	21-09-2019 to 23-09-2019	Idea Presentation	VIIT, Visakhapatnam	1st Prize	PO4,PO5, PO9. PSO1, PSO2.
3.	18NM1A0558 18NM1A0558 18NM1A0558	K. Reshma Ch Agarwal Harshitha	21-09-2019 to 23-09-2019	Idea Presentation	VIIT, Visakhapatnam	2nd Prize	PO4,PO5, PO9. PSO1, PSO2.
4.	16NM1A0586 16NM1A0535 16NM1A0512 16NM1A05H3 16NM1A0504	HarshithaP Deepika E B Niharika SathvikaR AVyshnavi	26-08-2018	Pixel Run Appathon	NASSACOMM 10000, Symbiosis Technologies	2nd Prize	PO4,PO5, PO9. PSO1, PSO2.
5.	16NM1A0522	B. Bhanusree	26-09-2018 to 27-09-2018	Coding Competition	VIIT, Visakhapatnam	2nd Prize	PO4,PO5, PO9. PSO1, PSO2.
6.	16NM1A0530	D.Vandana Sri	06-12-2018 to 08-12-2018	Hackarena	VIIT, Visakhapatnam	1st Prize	PO4,PO5, PO9. PSO1, PSO2.
7.	16NM1A0593 16NM1A0594 16NM1A0588	P. Praveena P. Manju P. Vasudha	14-09-2018 to 15-09-208	Poster Presentation	VIIT, Visakhapatnam	2nd Prize	PO4,PO5, PO9. PSO1, PSO2.
8.	17NM1A0589 17NM1A0564 17NM1A05A1	K Hema Sri J. S. Harshitha M. S. Bhavana	14-09-2018 to 15-09-208	Poster Presentation	VIIT, Visakhapatnam	1st Prize	PO4,PO5, PO9. PSO1, PSO2.
9.	16NM1A0535 16NM1A0504 16NM1A0530 16NM1A0512 16NM1A05H3 16NM1A0586	E. Deepika A. Vaishnavi D. V. Sri B. Niharika G. Satwika P. Harsitha	14-09-2018 to 15-09-208	Live Models-Parna App	VIIT, Visakhapatnam	3rd Prize	PO4,PO5, PO9. PSO1, PSO2.

Table B.6.4.g: Achievements of students in various technical events

6.5 Safety measures in laboratories

Sr. No.	Name of the Laboratory	Safety Measures
1	C and Data Structures Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
2	Object Oriented Programming Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
3	Free Open Source Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
4	Design and Database Management Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
5	IT Workshop Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
6	APSSDC CM Skill Centre of Excellence Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
7	Embedded Systems Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
8	Internet of Things (IoT) Lab	• Dos & Don'ts are displayed in the laboratory.

		• Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.
9	Project Lab	• Dos & Don'ts are displayed in the laboratory. • Electrical equipment's are grounded. • Class C Fire extinguisher is available in case of emergency. • First Aid kit is available in the laboratory.

Table B.6.4: Safety measures in laboratories

Dos and Don'ts:

Dos:

1. Leave your footwear outside the lab.
2. Every student must follow the dress code, they have to come in uniform and with ID card.
3. Late comers are not allowed after the commencement of the lab session.
4. Arrange yourself in the lab according to the roll numbers.
5. Soon after entering the lab, enter your details, that is the name and the machine number you are using in the log book.
6. Observation and record are mandatory for every lab session.
7. Read and understand how to carry out an activity thoroughly before coming to the laboratory.
8. Report fires or accidents to your faculty or technical staff immediately.
9. Report any broken plugs, exposed electric wires to your faculty or technical staff.
10. Turn off the machine once you are done using it.

Don'ts:

1. Do not eat or drink in the laboratory.
2. Avoid stepping on electrical wires or any other computer cables.
3. Do not open the system cabinet or monitor case particularly when the power is turned on. Some internal components hold electric voltages of up to 3000 volts which can be fatal.
4. Do not insert metal objects such as clips, pins and needles into the computer casings. They may cause fire.
5. Do not remove any thing from the computer laboratory without permission.

6. Do not touch, connect or disconnect any plug or cable without your faculty or technical staff permission.
7. Do not misbehave in the laboratory.
8. Do not plug the external devices such as pen drives without scanning them for computer virus.

Criterion 7	Continuous Improvement	50 M
7.1	Actions taken based on the results of evaluation of each of the POs & PSOs	20M
7.2	Academic Audit and Actions Taken thereof during the Period of Assessment	10M
7.3	Improvement in Placement, Higher Studies and Entrepreneurship	10M
7.4	Improvement in the quality of students admitted to the program	10M

Criterion 7	Continuous Improvement	50 M

7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (20)

(*Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve POs & PSOs attainment levels for the assessment years*.)

For continuous improvement in the Program Outcome of B. Tech Computer Science and Engineering and to identify the drawbacks in the program based on curriculum; the analysis and evaluation of Course Outcomes, Program Outcomes and Program Specific Outcomes analysis is compulsory.

The Teaching-learning process, Assessment and Evaluation process are used to identify the targets set to POs and PSOs whether attained or not. Based on the observations for specific PO and PSO, actions and corrective measures are recommended to achieve, improve and maintain the target attainment in coming assessment years.

The following are the action plan to be followed for the subsequent academic year is recommended for those courses in which the targets of POs and PSOs are not achieved. The improvement and maintain in the attainment of POs and PSOs are monitored in the subsequent year for the courses achieved target.

POs & PSOs attainment levels and actions for improvement during CAYm3 (2016-17)

<table>
<tr><th>POs</th><th>Target Level</th><th>Attainment Level</th><th>Observations</th></tr>
<tr><td colspan="4">PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.</td></tr>
<tr><td>PO1</td><td>2.20</td><td>2.25</td><td>• Target is achieved.
• Less attainment is observed in the courses like C213 [CO], C304 [DBMS], and C305 [OS].</td></tr>
<tr><td colspan="4">Action 1: Special classes should need to be taken on topics like Addressing modes & Interrupts in Computer organization and Scheduling algorithms in Operating systems for better understanding.
Action 2: Remedial classes are to be planned on topics like Normalization and Relational Database on course Database management system with a greater number of examples.
Action 3: Basic science courses are suggested to explain with multiple examples and solutions.</td></tr>
</table>

<table>
<tr><td colspan="4">PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.</td></tr>
<tr><td>PO2</td><td>2.20</td><td>2.21</td><td>• Target is achieved.
• Less attainment below target is examined in the courses like C213 [CO].
• Need to improve problem identification and analyzing skills.</td></tr>
<tr><td colspan="4">Action 1: To provide the practical knowledge, subject experts are invited for conducting workshops, to increase the ability of problem solving.
Action 2: The course Computer organization should be taught with innovative teaching learning methods for better understanding and more focus on problem solving.</td></tr>
<tr><td colspan="4">PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.</td></tr>
<tr><td>PO3</td><td>2.20</td><td>2.20</td><td>• Target is achieved.
• Low attainment is observed in these courses C304 [DBMS], C401 [CNS], C403 [MC], C404 [STM].</td></tr>
<tr><td colspan="4">Action 1: The courses like Database management system and Cryptography & Network security need to be taught with more number of examples to help the students for the preparation of competitive exams like GATE, IES…etc.
Action 2: In the course Mobile computing the topics like wireless sensor network and topics related to Software testing methodologies need to be explained with collaborative learning method and ICT methods.</td></tr>
<tr><td colspan="4">PO4:Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions</td></tr>
<tr><td>PO4</td><td>2.20</td><td>1.99</td><td>• Target is not achieved.
• Low attainment is observed in the courses C311 [DWM], C402 [UDP], C404 [STM].</td></tr>
<tr><td colspan="4">Action 1: Assignments should give on topics like Clustering methods in Data warehousing and mining and types of UML designs in course like UML & Design patterns with greater number of examples and designs required.
Action 2: More practical hours and programming examples for better analysis should be given for topics Design & Testing methodologies in real time for course like UML & Design Patterns.</td></tr>
<tr><td colspan="4">PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations</td></tr>
</table>

PO5	**2.20**	**2.02**	• Target is not achieved • PO5 is not achieved due to low attainment in the courses C304 [DBMS], C402 [STM] and C410 [CC]. • Lack of programming skills using modern tools is observed.
Action1: Advanced Query tool should use for Database Management system course, Star UML2 tool should use for the course Software testing and number of case studies should be detailed. **Action 2:** Workshops and seminar need to be considered for improving practical knowledge in various technologies using cloud for Cloud Computing.			
PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO6	**2.00**	**2.02**	• Target is achieved. • Still low attainment level below target is observed for courses C403 [MC], C406 [UDP LAB]. • The gap between the engineering knowledge and usage of technology towards the society to be filled.
Action 1: Suggested more number of NSS activities is to be conducted to fill the gap between engineering education and society. **Action 2**: Guest lectures are to be conducted on women health, safety and legal issues.			
PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO7	**2.00**	**1.85**	• Target is not achieved • This attainment can be improved further in courses C403 [MC], C408 [ST LAB]. • Still Students should aware of the practices for environmental sustainability.
Action 1: Seminars should conduct to create the awareness of the impact of professional working models, to maintain the solutions for environmental sustainability. **Action 2:** NSS activities are planned to create awareness on plastic usage for environment and sustainability.			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	**2.00**	**1.99**	• Target is not achieved. • This low attainment is due to C403 [MC], C402 [STM] • It is observed that knowledge on professional ethics is still to be improved.
Action 1: Students should be advised to follow ethical rules for writing the programs. **Action 2**: Faculties should motivate the students about the professional responsibilities in doing their work. **Action 3**: Guest lecture should be arranged to focus more on Ethical values concepts.			

<table>
<tr><td colspan="4">PO9:Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings</td></tr>
<tr><td>PO9</td><td>2.00</td><td>2.02</td><td>• Target is achieved.
• This can be improved further for courses C410 [CC], C402 [STM]
• Still lack of individual and teamwork is observed in few programming courses.</td></tr>
<tr><td colspan="4">Action 1: Students are to be encouraged to participate in various events and contests like paper presentation JAM etc. to maintain the target.
Action 2: Students are to be assigned to do development activities, working models etc. and to attend inter institute level competitions.</td></tr>
<tr><td colspan="4">PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.</td></tr>
<tr><td>PO10</td><td>2.00</td><td>2.04</td><td>• Target is achieved.
• Still low attainment level below target is observed for courses C318 [WT LAB], C402 [STM]
• Till Lack of communication skills is observed as the students come from different medium.</td></tr>
<tr><td colspan="4">Action 1: It is proposed to have MoU with prestigious organizations like Oxford University and British council for local chapter skill development.
Action2: Workshops and awareness programs to be conducted to enhance the communication skills of rural background students.
Action3: Students to be inculcated to participate in a greater number of events like JAM, Debate, and Group discussions to improve their communication.</td></tr>
<tr><td colspan="4">PO11:Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</td></tr>
<tr><td>PO11</td><td>2.00</td><td>2.01</td><td>• Target is achieved.
• Still low attainment level below target is observed for courses C308 [DBMS LAB].
• Lack of knowledge in developing projects is till observed</td></tr>
<tr><td colspan="4">Action1: Students are to be motivated to manage as a team or an individual to lead their work by organizing and attending various professional events in engineering.</td></tr>
<tr><td colspan="4">PO12:Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.</td></tr>
<tr><td>PO12</td><td>2.00</td><td>2.02</td><td>• Target is achieved.
• Still low attainment level below target is observed for courses C313 [DAA], C314 [WT]
• It is observed that participation of students is less in co-curricular activities</td></tr>
</table>

Action1: In the direction to learn the trends in the technology to meet the IT needs students should encourage towards online certification courses.			
PSO1: Graduates exhibit knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.			
PSO1	**2.20**	**2.20**	• Target is achieved • Low attainment is noticed in these courses, C301 [CD], C302 [DC] knowledge of practical implementation is to be improved • Technical and Core engineering skills are to be improved.
Action1: Guest lectures and workshops are to be conducted to be strong enough on various basic science courses and specialization courses.			
PSO2: Graduates can adapt to evolving technologies for the design and development of full-stack applications in diversified fields with optimal programming skills.			
PSO2	**2.22**	**2.21**	• Target is achieved. • Low attainment is noticed in few technical and core courses.
Action 1: Proposed to establish IoT lab and additional labs on Python programming to improve full stack development skills in programming.			

Table B.7.1.a: POs & PSOs attainment levels and actions for improvement during CAYm3 (2016-17)

POs & PSOs attainment levels and actions for improvement during CAYm2 (2017-18)

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	**2.30**	**2.34**	• Target is achieved. • PO1 attainment can be improved further in the courses like C213 [CO], C304 [DBMS], C305 [OS]
Action 1: Tutorial classes should conduct for topics like Virtual memory management in Operating System. **Action 2:**More number of assignments need to give on topics like Normalization methods for courses like Database management System **Action 3:**Basic science courses should be explained with a greater number of examples and solutions.			
PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	**2.30**	**2.31**	• Target is achieved

			• Less attainment is observed in the courses like C304 [DBMS], C401 [CNS], C403 [MC]. • Need to improve problem identification and analyzing skills.
Action1: More number of assignments should assign for topics in Cryptographic algorithms and Routing Encapsulation in Mobile Computing such that the students can individually identify and analyze the problem. **Action 2:** More practical lab sessions should be conducted for Database Management System lab.			
PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	**2.30**	**2.30**	• Target is achieved • Low attainment is still noticed in these courses C304 [DBMS], C310 [SE].
Action 1: For courses like Database Management System, insight explanations of SQL queries with more number of examples are required. **Action 2**: Assignments should be given for having more emphasis on using Software engineering tools in Software Engineering.			
PO4:Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions			
PO4	**2.30**	**2.17**	• Target is not achieved • This is due to low attainment is observed in the courses C211 [JP], C213 [CO], C410 [CC]
Action1: More practical hours and programming examples on Java programming should include to understand and design complex problems. **Action2**: Assignments with detailed explanation required for various topics in Computer Organization and cloud computing.			
PO5:Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations			
PO5	**2.30**	**2.30**	• Target is achieved • This PO attainment can be improved further in courses C404 [STM], C411 [DDS]. • Lack of programming skills using modern tools is observed.
Action1: Advanced tools should use for the lab courses with more practical coding skills and multiple examples to be given for finding the solutions. **Action 2:** Workshops and seminar are to be considered for improving practical knowledge in various technologies and using modern tools.			

<table>
<tr><td colspan="4">PO6:The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice</td></tr>
<tr><td>PO6</td><td>2.10</td><td>2.10</td><td>• Target is achieved.
• Low attainment is noticed in these courses C211 [JP], C310 [SE], C403 [MC].
• The gap between the engineering knowledge and usage of technology towards the society still to be filled.</td></tr>
<tr><td colspan="4">Action 1: Projects based on safety, legal and too aware of health issues to be given and emphasized.
Action 2: Workshop and Guest lecturers to be conducted on designing, thinking and ethical software development.
Action 3: Workshops to be organized to bring the students awareness on societal problems and develop professional solutions like developing applications.</td></tr>
<tr><td colspan="4">PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</td></tr>
<tr><td>PO7</td><td>2.10</td><td>1.90</td><td>• Target is not achieved
• This can be improved further in these courses C312 [CN], C318 [WT LAB], C403 [MC].
• Still Students should aware of the practices for environmental sustainability</td></tr>
<tr><td colspan="4">Action 1: Based on the concepts of environment sustainability, Hackathon, Product development, working models' activities to be conducted
Action 2: Workshop and Guest lecturers to be conducted on environmental issues like e-waste, Go-green, plastic usage etc.</td></tr>
<tr><td colspan="4">PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</td></tr>
<tr><td>PO8</td><td>2.10</td><td>2.11</td><td>• Target is achieved
• Low attainment is noticed in these courses C401 [CNS], C404 [STM].
• It is observed that knowledge on professional ethics is less.</td></tr>
<tr><td colspan="4">Action 1: Workshops and Seminars are to be conducted to aware the professional ethics concepts.
Action 2: Faculties should motivate the students, to strictly adhere to their professional responsibilities in doing assignments, coding, seminar, projects etc.</td></tr>
<tr><td colspan="4">PO9: Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings</td></tr>
<tr><td>PO9</td><td>2.10</td><td>2.10</td><td>• Target is achieved
• Low attainment is noticed in these courses C313 [DAA], C311 [DWM].</td></tr>
</table>

			• Still lack of individual and teamwork is observed in few programming courses.
Action 1: Students are to be encouraged to participate in various events and contests like paper presentation, Group discussions, JAM etc., to maintain the target. **Action 2**: Students are to be assigned to do development activities;mini projects as an individual, designing engineering products, working models etc. and to attend inter institute level competitions.			
PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
PO10	**2.10**	**2.07**	• Target is not achieved. • PO10 attainment is low due to courses C310 [SE], C314 [WT]. • Observed be deficient in of communication skills as the students come from different medium.
Action 1: It is proposed to conduct British council teaching learning workshop for students to improve their communication Skills. **Action 2:** Awareness and practice sessions in English Lab are to be considered for communicating effectively what the work they done as an individual or large. **Action 3:** Students advised to participate in seminars, presentations, speaking in English to increase their communication skills by practicing in and out of the classroom.			
PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
PO11	**2.10**	**2.10**	• Target is achieved. • This can be improved further in the courses C401 [CNS], C406 [UDP LAB]. • Lack of knowledge in developing projects is till observed
Action1: Activities are to be planned with professional bodies to aware and understand the project management techniques and financial aspects.			
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
PO12	**2.10**	**2.12**	• Target is achieved. • Low attainment is noticed in these courses C215 [ADS LAB], C316 [CN &NP LAB]. • It is observed that participation of students is less in co-curricular activities
Action1: Awareness programs on latest technologies and trends towards the software tools are to be conducted.			

PSO1: Graduates exhibit knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.			
PSO1	**2.30**	**2.30**	• Target is achieved. • Low attainment is noticed in programming courses, C303 [PPL], C313 [DAA] • Skills in Technical and core engineering courses arête be improved
Action1: Guest lectures and workshops are to be conducted to be strong enough on various basic science courses and specialization courses.			
PSO2: Graduates can adapt to evolving technologies for the design and development of full-stack applications in diversified fields with optimal programming skills.			
PSO2	**2.30**	**2.35**	• Target is achieved. • Low attainment is noticed in technical and core courses like C308 [DBMS LAB], C411 [DDS].
Action1: Students should have knowledge on latest technologies with hands on experience, optimum programming skills to solve real time complex problems. **Action 2:** Faculty members are advised to encourage students to do mini projects on IoT and create innovative models and Real time applications for smart devices by unitizing IoT lab.			

Table B.7.1.b: POs & PSOs attainment levels and actions for improvement during CAYm2 (2017-18)

POs & PSOs attainment levels and actions for improvement during CAYm1 (2018-19)

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	**2.40**	**2.44**	• Target is achieved. • This attainment can be improved further by increasing attainment level in courses like C301 [CD], C304 [DBMS], C305 [OS] and C401 [CNS]. • Performance in Basic science courses are less.
Action 1: More number of assignments and examples should be given on topics like RSA, DES, AES Algorithms in Cryptography and Network Security. **Action 2:** Lexical Analysis and syntax errors in Complier Design are to be emphasized using different examples. **Action 3:** Special classes need to be conducted for topics like page replacement algorithms in Operating systems.			

<table>
<tr><td colspan="4">Action 4: Database queries handling and Normalization methods should be delivered elaborately in Database Management System.
Action 5: Slow learners are to be planned with extra classes through continuous monitoring.</td></tr>
<tr><td colspan="4">PO2:Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.</td></tr>
<tr><td>PO2</td><td>2.40</td><td>2.40</td><td>• Target is achieved.
• Less attainment level below target is observed for the courses like C104 [CP], C304 [DBMS], C305 [OS], C411 [DDS].
• Need to improve the analyzing ability among the students for continuous improvement.</td></tr>
<tr><td colspan="4">Action1: Additional lab sessions to be conducted to enhance analyzing ability in solving problems logically using C Programming.
Action2: More number of theory and practical sessions need to be conducted to explain key topics like query processing, transaction management methods, SQL queries etc.
Action3: Assignments should be given related to problem analysis in topics like scheduling algorithms, process management, paging techniques of Operating system.
Action4:Faculty is advised to discuss GATE relevant topics in classrooms to increase the problem analyzing abilities in students.</td></tr>
<tr><td colspan="4">PO3:Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.</td></tr>
<tr><td>PO3</td><td>2.40</td><td>2.41</td><td>• Target is achieved.
• This can be improved further by increasing attainment levels for courses like
C401 [CNS], C403 [MC], C411 [DDS].
• Design aspects are lagging in the courses C310 [STM], C402 [UDP].</td></tr>
<tr><td colspan="4">Action1: Cryptography algorithms need to be explained in detail with interactive sessions in Cryptography and Network Security.
Action 2: Seminars/workshops need to be conducted on Wireless networking and Mobile Computing with real time examples.
Action 3: Few core courses should be taught with real time applications to design and develop solutions of complex problems.</td></tr>
<tr><td colspan="4">PO4:Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.</td></tr>
<tr><td>PO4</td><td>2.40</td><td>2.42</td><td>• Target is achieved.
• Still low attainment level is observed for courses like C104 [CP], C211 [JP], C203 [OOPS].</td></tr>
</table>

			• Logical thinking ability to solve complex problems need to be improved.
Action1: Lab sessions should be increased for programming language courses to enhance coding skills in solving complex problems. **Action 2:**Faculty members are advised to confer modest and significant journal papers in classroom to improve research-based knowledge in their project work. **Action3**: Advanced modules in Object-oriented programming should be taught using java and latest programming languages.			
PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations			
PO5	**2.40**	**2.41**	• Target is achieved. • PO5 attainment can be improved further in courses like C402(UDP),C404(STM), C405(HBD), C410(CC).
Action1: Advanced tool Star UML2 should be usedto teach the course UML& design patterns and more number of case studies should inculcate on software testing tools. **Action2**:Students are provided with AWS account for using the cloud resources in doing mini and major projects. **Action 3**: Hands on training sessions and workshops are conducted in Python, Java, Hadoop and Bigdata, Android and IoT.			
PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice			
PO6	**2.20**	**2.25**	• Target is achieved. • Still low attainment level below target is observed for courses C403 (MC),C405(HBD),C410 (CC). • Still Lack of understanding between the engineering services with the society.
Action 1: Workshop on real time applications using IoT need to be planned to meet the safety and security aspects for a better society. **Action 2**: Workshop and Guest lecturers to be conducted on designing, thinking and ethical software development. **Action 3:** Students are encouraged to participate in co-curricular,extra- curricular, inter and intra institutional activities to enhance their professional engineering practices.			
PO7:Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge ofand need for sustainable development.			
PO7	**2.20**	**2.06**	• Target is not achieved. • PO7 attainment is low due to low attainment level below target is observed for courses C318 [WTLAB], C403 [MC].

<table>
<tr><td colspan="4">Action1: Seminars and events are planned to improve consciousness on environment and sustainability issues professionally.
Action 2: NSS activities are suggested to create awareness on “Renewable Energy Sources” for environment and sustainability.
Action 3: Environmental related topics for sustainability need to be discussed with students to make awareness on the issues occurred by wireless radiations in the society.</td></tr>
<tr><td colspan="4">PO8:Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</td></tr>
<tr><td>PO8</td><td>2.20</td><td>2.26</td><td>• Target is achieved.
• Along with technical knowledge, ethical knowledge should be included while teaching the programming courses.</td></tr>
<tr><td colspan="4">Action 1:More workshops need to be conducted related to ethics like Cyber security, Ethical hacking and issues related to social media to create awareness on Cyber-crimes.
Action 2:Need to conduct more Expert talks on Professional Ethics in Computer science and engineering.</td></tr>
<tr><td colspan="4">PO9: Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings</td></tr>
<tr><td>PO9</td><td>2.20</td><td>2.22</td><td>• Target is achieved.
• This can be improved further by increasing attainment level for programming courses C211 [JP], C212 [ADS] etc.</td></tr>
<tr><td colspan="4">Action 1: Students are motivated to organize and participate as an individual or a team in department, institute level and intra institute events.
Action2: More students should be encouraged to participate in group discussions which incorporate decision making ability and work division capability.
Action 3: Students are encouraged to participate as an individual or a team by adapting latest trends in programming knowledge to develop Live models, Coding competitions, Hackathons, major and mini projects.</td></tr>
<tr><td colspan="4">PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.</td></tr>
<tr><td>PO10</td><td>2.20</td><td>2.25</td><td>• Target is achieved.
• Presentation and communication skills need to be improved as the students are coming from different medium backgrounds.</td></tr>
<tr><td colspan="4">Action 1:Students are advised that communication is continuous learning process and motivated to participate in inter and intra institute events like paper presentation ,poster presentation, group discussions, quiz competitions etc.
Action 2: Students are motivated to utilize the additional facilities in doing certification courses like British council, oxford university of college local chapter to improve their communication skills.</td></tr>
</table>

<table>
<tr><td colspan="4">Action 3:Students are encouraged to participate in National and International events which are conducted in other colleges.</td></tr>
<tr><td colspan="4">PO11:Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</td></tr>
<tr><td>PO11</td><td>2.20</td><td>2.22</td><td>• Target is achieved.
• Still low attainment level below target is observed for courses C211 [JP], C212 [ADS], C304 [DBMS].
• Knowledge on project management and finance should be improved.</td></tr>
<tr><td colspan="4">Action 1: Students are encouraged to organize inter and intra institutional events, Department Association club activities like(Technical/Non-Technical) to increase their management skills.
Action 2:Activities are to be planned under professional bodies like CSI and IEI to improve financial understanding and analysis.
Action 3:Students are instructed to develop projects using latest trends in era of computer science and engineering and motivated to publish their academic project in reputed journals.</td></tr>
<tr><td colspan="4">PO12:Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.</td></tr>
<tr><td>PO12</td><td>2.20</td><td>2.25</td><td>• Target is achieved.
• This can be Still low attainment is noticed in the courses like C206 [OOPSLAB], C207 [DS LAB].
• Need to improve the knowledge in latest technologies by using online resources for continuous learning.</td></tr>
<tr><td colspan="4">Action1: Students are encouraged to take up online certification courses like NPTEL, COURSERA and UDEMY on recent technologies.
Action2: Awareness on latest technologies and trends is planned through seminars and guest lectures.</td></tr>
<tr><td colspan="4">PSO1: Graduates exhibit knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.</td></tr>
<tr><td>PSO1</td><td>2.40</td><td>2.40</td><td>• Target is achieved.
• Improvement in Basic Science courses and fundamental knowledge of Engineering and Professional courses should be increased.</td></tr>
<tr><td colspan="4">Action1: Seminars, Group discussions and Interactive sessions need to be arranged for students to increase communication skills and knowledge in fundamental engineering courses.
Action2: Guest lectures and workshops need to be planned to expose the latest advancements in Cloud Computing, Network security etc.</td></tr>
<tr><td colspan="4">PSO2:Graduates can adapt to evolving technologies for the design and development of full-stack applications in diversified fields with optimal programming skills</td></tr>
<tr><td>PSO2</td><td>2.40</td><td>2.40</td><td>• Target is achieved.</td></tr>
</table>

			• Students need to develop optimized programming skills using latest technologies in the era of Computer Science.
Action 1: Faculty members are advised to encourage students to do mini and major projects on latest trends like Android, Big data, IoT etc. **Action 2:** Students are motivated to develop multi-disciplinary projects with optimized programming skills in latest technologies.			

Table B.7.1.c: POs & PSOs attainment levels and actions for improvement during CAYm1 (2018-19)

PO-Program Attainment Comparison Analysis:

Program Outcome Attainments for the three consecutive batches 2013-17, 2014-18 and 2015-19 are shown below in Table B.7.1.d and in Figure B.7.1.a. For the students of the program B.Tech Computer Science and Engineering, we set

- For CAYm3 (2016-17) a target of 2.20 out of 3 is fixed for the POs : PO1 to PO5 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses
- For CAYm3 (2016-17) a target of 2.00 out of 3 is fixed for the POs : PO6 to PO12) which are moderately correlated to Engineering core courses and Non-engineering courses
- For CAYm2 (2017-18) a target of 2.30 out of 3 is fixed for the POs : PO1 to PO5 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses
- For CAYm2 (2017-18) a target of 2.10 out of 3 is fixed for the POs : PO6 to PO12) which are moderately correlated to Engineering core courses and Non-engineering courses
- For CAYm1 (2018-19) a target of 2.40 out of 3 is fixed for the POs : PO1 to PO5 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses
- For CAYm1 (2018-19) a target of 2.20 out of 3 is fixed for the POs : PO6 to PO12) which are moderately correlated to Engineering core courses and Non-engineering courses

For the admitted batch 2013-17, eight Program Outcomes PO1, PO2, PO3, PO6, PO9, PO10, PO11 and PO12 attained the target set by us.

For the admitted batch 2014-18, nine Program Outcomes PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11 and PO12 attained the target set by us.

For the admitted batch 2015-19, eleven Program Outcomes PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11 and PO12 attained the target set by us.

From the above observations, it is evident that the performance of the students in all the three batches is progressively improved in acquiring the Engineering knowledge, analyzing the problem and providing optimal design solutions skills.

From the above analysis, the attainment of target values for PO9, PO10, PO11 and PO12 of all the batches indicates that our Teaching-Learning methodologies are in line with Outcome Based Education (OBE). This in turn leads to the achievement of stated vision by inculcating team work, communication, management and lifelong learning skills in our young minds.

Hence, we incorporate the gaps identified from the stake holders into our regular curriculum for the subsequent batches to improve the attainments. The progressive growth of placements proves that our CSE students attained the target of program outcomes which gives the confidence and strength for the upcoming batches.

TARGET	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
2013-17	2.20	2.20	2.20	2.20	2.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00
2014-18	2.30	2.30	2.30	2.30	2.30	2.10	2.10	2.10	2.10	2.10	2.10	2.10
2015-19	2.40	2.40	2.40	2.40	2.40	2.20	2.20	2.20	2.20	2.20	2.20	2.20
ATTAINED	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
2013-17	2.25	2.21	2.20	1.99	2.02	2.02	1.85	1.99	2.02	2.04	2.01	2.02
2014-18	2.34	2.31	2.30	2.17	2.30	2.10	1.90	2.11	2.10	2.07	2.10	2.12
2015-19	2.44	2.40	2.41	2.42	2.41	2.25	2.06	2.26	2.22	2.25	2.22	2.25

Table B.7.1.d: PO-Program Attainment Comparison Analysis

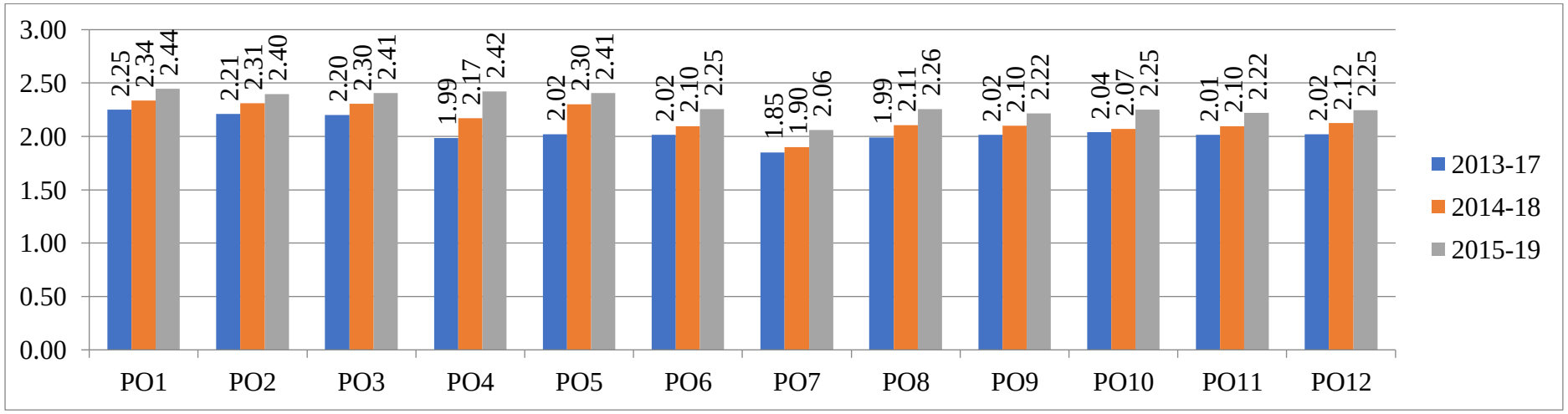


Figure B.7.1.a: PO-Program attainment analysis for three consecutive batches.

PSO -Program Attainment Analyisis:

Program Specific Outcome attainment for the three consecutive batches 2013-17, 2014-18 and 2015-19 are shown below in Table B.7.1.e and in Figure B.7.1.b For the students of the program B.Tech Computer Science and Engineering, we set

- For CAYm3 (2016-17) a target of 2.20 out of 3 is fixed for both PSO1 and PSO2 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses.

- For CAYm2 (2017-18) a target of 2.30 out of 3 is fixed for both PSO1 and PSO2 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses.

- For CAYm1 (2018-19) a target of 2.40 out of 3 is fixed for both PSO1 and PSO2 which are highly correlated to Engineering core courses and moderately correlated to Non-engineering courses.

For PSO-Program Attainment for the three consecutive batches 2013-17, 2014-18 and 2015-19, PSO1 and PSO2 reached the target set by us. A continuous improvement is observed for the three batches in PSO attainment which is achieved by preparing our students towards the needs of IT and IT enabled industries by motivating students to participate in various extra and co-curricular activities.

Target	**2013-17**	**2014-18**	**2015-19**
PSO1	2.20	2.30	2.40
PSO2	2.20	2.30	2.40
Attained	**2013-17**	**2014-18**	**2015-19**
PSO1	2.22	2.30	2.40
PSO2	2.21	2.35	2.40

Table B.7.1.e: PSO-Program Attainment Comparison Analysis

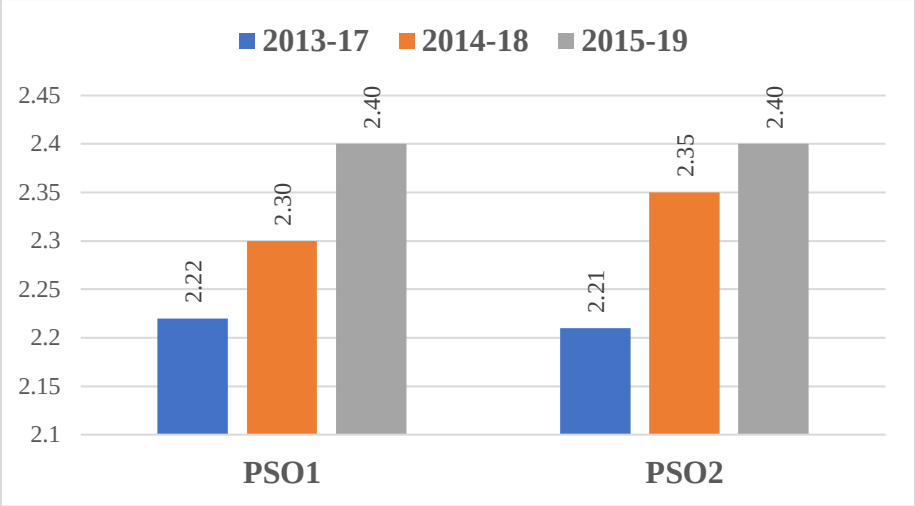


Figure B.7.1.b: PSO-Program Attainment analysis for three consecutive batches

7.2. Academic Audit and actions taken thereof during the period of Assessment (10)

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

The quality of teaching-learning practices in the Department of Computer Science and Engineering and attainment of target is ensured by carrying out the Academic audit. The various committees like Department Advisory Committee (DAC), Program Assessment Committee (PAC), Student Review Committee (SRC), audits the various activities which are carried out in the department at their frequency on demand.

These committees submit their report consisting of observations, suggestions and actions taken thereof to IQAC through Head of the department.

The Head of the department considers the suggestions from Principal and IQAC. Any suggestions from Principal and IQAC will be considered and implemented in the Department by Head of the department.

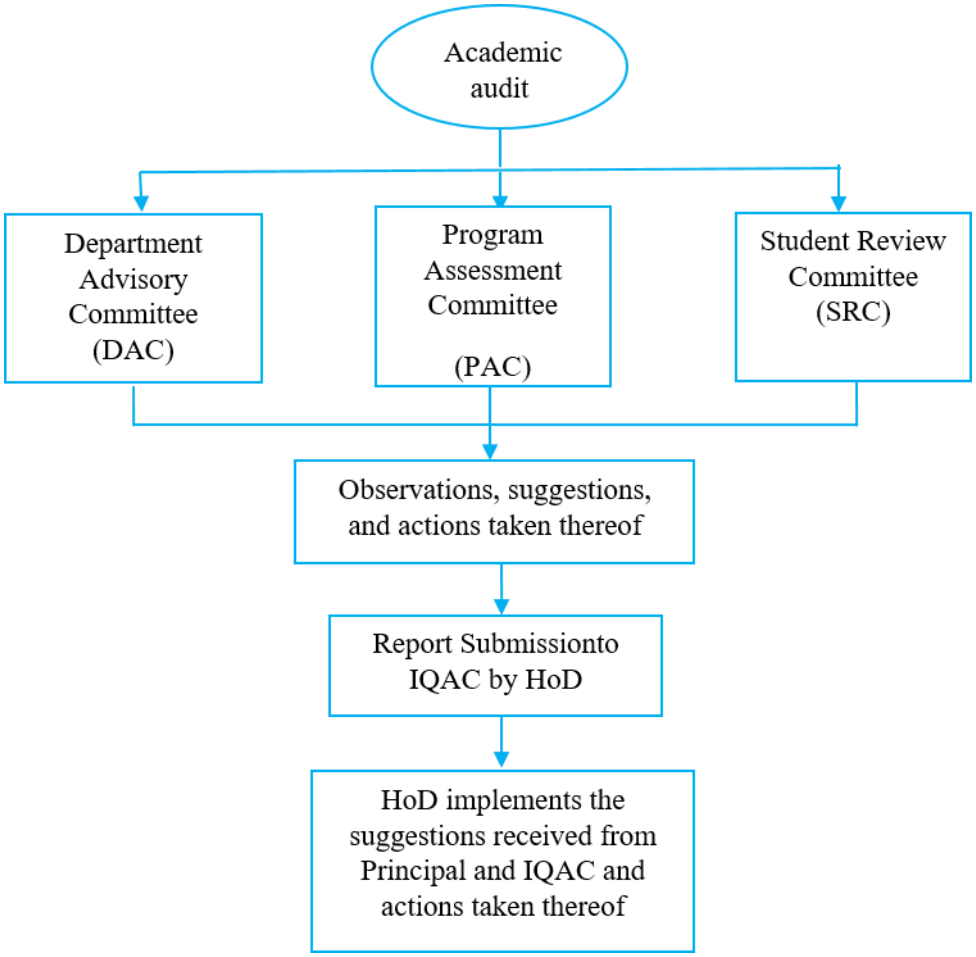


Figure B.7.2: Process of Academic audit

The process of Academic audit for the program is shown in the Fig B.7.2 and the composition of various committees involved with their roles and responsibilities are shown in Table B.7.2a.

Audit Committee	Roles &Responsibilities	Frequency
Department Advisory Committee (DAC): • Principal • Academic Director • Head of the Department • Industry person • Academic person • Alumni	• Monitoring the achievements of Program Outcomes (POs), Program Specific Outcomes (PSO), Program Educational Objectives (PEOs). • Evaluating program effectiveness and proposing necessary changes. • For quality improvement, monitoring the faculty and students towards attending FDPs, Workshops, Seminars, Development activities and Research activities. • Suggestions on Teaching pedagogy and OBE awareness. • Suggestions for Students –Industry interaction.	Once in a year
Program Assessment Committee (PAC): • Head of the Department • Program Coordinator • Attendance Coordinator • Feedback coordinator • Examination Coordinator • Faculty activities and R& D Coordinator • Project Coordinator • Student Mentoring Coordinator • System Cell In-charge • Training and Placement Coordinator • IQAC Department Coordinator • Student activities Coordinator	• Adherence to academic calendar. • Course file verification. • Verification of quality of Assignments, Tutorials, Contents in Department Course website. • Curriculum delivery process and Assessing Curriculum- Gap identification. • Attainment of COs, POs& PSOs. • Collection and Analysis of feedback and various Surveys- Corrective measures. • Providing guidelines to participate and organize FDPs, Conferences, Seminars, Workshops, Events in student chapters, Inter- institute events etc. • Review on Quality & Quantity of Research publications. • Verification of Lab manuals, Student lab records, Stock registers, Maintenance registers, Suggestion books, AMC, overall lab maintenance etc. • Laboratory work evaluation process. • Available and requirement of lab resources (Software, hardware, peripherals etc.), their working status and Utilization.	Once in a semester

	• Assessing of student's projects (Mini & Major). • Review and Guidelines on Campus Recruitment training, On campus and Off campus placements, Measures for improvement of placements .	
	• Verification- Quality of Mid exam question paper and scheme of evaluation as per COs followed by Blooms taxonomy. • Evaluating the results and measures for improvement • Process of identifying the advanced and slow learners and necessary suggestions. Should be given.	Twice in a semester
	• Attendance registers, monthly attendance reports, Communication of attendance. • Periodic meetings with all Mentors for improvement. • Monitoring the process and Suggestions/ corrective measures for mentoring outcome.	Once in a month
Student Review Committee (SRC): • Head of the Department • Faculty Coordinator- II year • Faculty Coordinator- III year • Faculty Coordinator- IV year • Student Representative- II year • Student Representative - III year • Student Representative - IV year	• Performance analysis of students in internal & external examination. • Encouraging students for Internships in top MNC's. • Encouraging students to publish papers on final year projects, higher studies, competitive exams, GATE, GRE etc. • Review on Classroom activities for better learning and understanding of contents. • Interaction with Students about placement and training activities	Twice in a semester
	• SRC meetings to monitor syllabus status. • Interacting with students regarding student mentoring system and regular absentees. • Assessing the requirement of Extra/Tutorial/Remedial Classes.	Once in a month

Table B.7.2.a: Assessment Committees to audit for the program

Actions on audit committee reports for Assessment year CAYm3 (2016-17)

S.No	AcademicAudit Committee	Committee members	Major findings/ Suggestions	Corrective actions
1.	**Department Advisory Committee (DAC)**	Dr. J. Sudhakar *Principal* Dr. A. Sesha Rao, *Academic Director* Dr. K. Vijaya Kumar *Head of the Department* Mr. T.Suresh, *Wipro, Industry person* Mrs.G.ArunaKumari, *UCEV, Academic person* Ms. A. Anusha- *Alumni working as a faculty.*	• Suggested to establish student clubs and organize events. • Advised faculty to publish one Scopus Indexed paper for every semester. • Faculty FDP's and certification courses are to be increased. • Students participating in Inter-institute events to be encouraged • Students should be motivated towards higher studies	• TECHRITHI and SAMSKITHI are two student clubs established. • Management is encouraging faculty members to publish papers in reputed journals toimprove their number of publications for the subsequent academic years. • Faculties motivating the students towards the higher education.
2.	**Program Assessment andCommittee (PAC)**	Dr. K. Vijaya Kumar *Head of the Department* Mrs. P. Vijaya Bharati *Program Coordinator.* MrA.N.Suresh *Attendance Coordinator* Ms.P.Padmavathi *Feedback coordinator* Mr.L.Bhupathi Rao *Examination Coordinator* Mr. S. Ram Prasad Reddy. *R& D Coordinator* Mrs. D.Kamalkumari *Project Coordinator* Mr.B.A.Ganesh	• Incomplete syllabus before mid1 exams. • Quality Improvement of question paper and scheme of valuation according to Bloom's taxonomy • License and open source software should be more in the lab. • Lab manuals need to be updated as per the regulation • Additional experiments should include beyond the syllabus • Interaction with students of less attendance should be there continuously.	• Extra classes are scheduled to complete the syllabus before the mid examination • Circular is issued to all faculties to strictly adhere to Blooms taxonomy in questions preparing for Assignments and Mid examinations • Mentors are in contact with such students and their parents. • Mentors/Classcoordinators discussed the importance of course website to IIyear students and guidelines are provided for examination preparation.

		Student Mentoring Coordinator Mr. P.Praveenkumar *System Cell Incharge* Mr. V.Umashankar T*&P Coordinator* Mrs. R. Pravallika, *IQAC Department Coordinator* Ms. Y. VineelaSravya *Student activities Coordinator*	• Awareness of Course website and directions towards mid exam preparation should be proactive.	• For core programming courses, extra lab hours and programs beyond the syllabus are explained.
3.	**Student Review Committee (SRC)**	Dr. K. Vijaya Kumar *Head of the Department* Mrs.M.Madhuri *Faculty Coordinator- II year* Mr.B.A.Ganesh *Faculty Coordinator- III year* Mr.L.Bhupathi Rao *Faculty Coordinator- IV year* K.Pratyusha *Student Representative- II year* A.KrupaChelsia *Student Representative -IIIyear* P. Priya Bhargavi *Student Representative-IV year*	• Few students in every class are with less attendance. • More lab practice hours to be provided for lab courses • Student publications are to be improved. • Alumni registrations and events to be conducted.	• Informed student mentors to know the reason of less attendance and communication is sent to Parents. • Lab is open to all students even after the regular timings and students are utilizing this facility. • Motivating final year students to publish papers . • Final year students are provided with the importance of alumni registrations

Table B.7.2.b:Actions on audit committee reports for Assessment year CAYm3 (2016-17)

S.No	AcademicAudit Committee	Committee members	Major findings/ Suggestions	Corrective actions
1.	**Department Advisory Committee (DAC)**	Dr. J. Sudhakar *Principal* Dr. A. Sesha Rao, *Academic Director* Dr. K. Vijaya Kumar *Head of the Department* Mr. T.Suresh, *Wipro, Industry person* Mrs.G.ArunaKumari, *UCEV, Academic person* Ms. A. Anusha- *Alumni working as a faculty*.	• Suggested to implement Dynamic classroom teaching methods • More number of events to be organized to fill the curriculum gap for attaining POs and PSOs • Suggested the faculty to create awareness on OBE to students. • Advising the faculty and students towards attending workshops, developing projects and engaging in research activities. • Suggested faculty to maintain periodic reports on program activities.	• FDP on teaching pedagogy methods attended by few faculties are implemented in classroom. • Extracurricular and Co-curricular events are conducted and students are encouraged to attend inter institute events • Management is providing sufficient resources to aware about OBE. • Management is supporting both faculty and students to attend workshops and conferences which are conducted in other colleges. • Management is providing advanced equipment in labs to encourage research activities.

2.	**Program Assessment and Committee (PAC)**	Dr. K. Vijaya Kumar *Head of the Department* Mrs. P. Vijaya Bharati *Program Coordinator*. Mr. A.N.Suresh *Attendance Coordinator* Mrs.T.Padmavathi *Feedback coordinator* Mr.L.Bhupathi Rao *Examination Coordinator* Mr. S. Ram Prasad Reddy *R& D Coordinator* Mrs. D.Kamalkumari *Project Coordinator* Mr.B.A.Ganesh *Student Mentoring Coordinator* Mr. P.Praveenkumar *System Cell Incharge* Mr. V.Umashankar T*&P Coordinator* Mrs. R. Pravallika, *IQAC Department Coordinator* Ms. Y. VineelaSravya *Student activities Coordinator*	• Identified more backlog students in every class. • Identified less attendance of students in every class. • Identified less feedback for few courses. • Inclusion-of-augmented experiments in every lab. • Latest versions of software's need to be updated. • Lack of participation in CRT training classes • Identified more number of projects should be on latest technologies like IoT etc.	• Remedial classes should be conducted for backlog students. • Faculty need to counsel the students and their parents to make the student attend the classes regularly. • HOD counsels the faculty those who got less feedback by identifying their drawbacks while teaching and conducting orientation classes as action taken thereof by Principal. • Explaining more examples beyond the syllabus and give more time for practice • Lab in charges is advised to update the latest software's. • Assigning a studentcoordinator for every class as a disciplinary committee member. • Faculty are advised to motivate the students to know the importance of training and placement classes

3.	**Student Review Committee (SRC)**	Dr. K. Vijaya Kumar *Head of the Department* Mrs.R.Pravallika *Faculty Coordinator- II year* Mr.A.N.Suresh *Faculty Coordinator- III year* Mr.I.Raju *Faculty Coordinator- IV year* G.Praharsha *Student Representative- II year* A.Sireesha *Student Representative - III year* Sheetal Singh *Student Representative - IV year*	• Advised faculty to conduct interactive sessions on senior-junior talks regarding placement and training and share their experiences. • Results to be improved. Average marks of each course in a class to be improved • Faculty need to encourage students to publish papers on final year projects • Less interaction among regular absentees • Less interaction with students regarding class monitoring system •	• Senior-junior interactive sessions should inculcate for every section weekly once. • Faculty helps students to create awareness on research publications. • Faculty need to update student counseling records monthly. • Class teachers are advised to interact with students regarding their class works continuity.

Table B.7.2.c: Actions on audit committee reports for Assessment year CAYm2 (2017-18)

S.No	AcademicAudit Committee	Committee members	Major findings/ Suggestions	Corrective actions
1.	**Department Advisory Committee (DAC)**	Dr. J. Sudhakar *Principal* Dr. A. Sesha Rao, *Academic Director* Dr. K. Vijaya Kumar *Head of the Department* Mr. T.Suresh, *Wipro, Industry person*	• Suggested faculty members to organize a National Level Conference. • Advised faculty to publish one Scopus Indexed paper for every Semester. • Faculty FDP's and certification courses are to be increased.	• Department of Computer Science Engineering planning for national level conference in the month of October. • Management is encouraging faculty members to publish papers in reputed journals. Improving the

		Mrs.G.ArunaKumari, *UCEV, Academic person* Ms. A. Anusha- *Alumni working as a faculty*.	• Students participating in Inter-institute events to be encouraged	number of publications for the subsequent academic years • Management is encouraging faculty with financial benefits to attend FDP's in IIT'S, NIT's & for NPTEL certification. More number of publications and attending FDPs are in process.
2.	**Program Assessment Committee (PAC)**	Dr. K. Vijaya Kumar *Head of the Department* Mrs.P.Vijaya Bharati *Program Coordinator*. Mrs. G. Pavani *Attendance Coordinator* Mrs.R.Pravallika, *Feedback coordinator* Mr.I.Raju *Examination Coordinator* Mr. S.RamPrasad Reddy. *R& D Coordinator* Mrs. M. Mamatha laxmi *Project Coordinator* Mrs. N. Sowjanya *Student Mentoring Coordinator* Mr.D.Rajendra dev *System Cell In-charge* Mr.R.Ravi T*&P Coordinator* Mrs.R.Pravallika, *IQAC Department Coordinator* Ms.Y.VineelaSravya *Student activities Coordinator*	• Delay in producing the course files • Innovative-Teaching-learning methods should be adopted in terms of OBE • Incomplete syllabus before mid1 exams. • Quality Improvement of question paper and scheme of valuation according to Bloom's taxonomy • License and open source software should be more in the lab. • Lab manuals need to be updated as per the regulation • Additional experiments should include beyond the syllabus • Interaction with students of less attendance should be there continuously. • Awareness of Course website and directions towards mid exam preparation should be proactive.	• Suggested to submit course files on time except for a proper cause. • Extra classes are scheduled to complete the syllabus before the mid examination • Circular is issued to all faculties to strictly adhere to Blooms taxonomy in Questions preparing for Assignments and Mid examinations • Mentors are in contact with such students and their parents. • Mentors/Class Coordinators discussed the importance of Course website to II-yearstudents and guidelines are provided for examination preparation,

3.	**Student Review Committee (SRC)**	Dr. K. Vijaya Kumar *Head of the Department* Mr. I. Raju *Faculty Coordinator- II year* Ms. Y. VineelaSravya *Faculty Coordinator- III year* Mrs. P. Vijaya Bharati *Faculty Coordinator- IV year* G.Vatsalya *Student Representative- II year* P.Harshitha *Student Representative - III year* K.Madhumitha *Student Representative - IV year*	• Few students in every class are with less attendance. • More lab practice hours to be provided for lab courses Student publications are to be improved.	• Informed Student mentors to know the reason and communication is sent to Parents. • Lab is open to all students even after the regular timings and students utilizing this facility. • Motivating final year students to publish papers in the subsequent years

TableB.7.2.d: Actions on audit committee reports for Assessment year CAYm1(2018-19)

Year	Improvements
2018-19	• Quality and Quantity of paper publications in reputed journals are increased. • Students placements and package were increased • Campus recruitment training and Campus specific training is provided for campus drives. • Visiting of reputed MNCs were increased. • Organizing and attending of FDPs, workshops, seminars are increased • Student publication in journals are increased • Innovative Teaching-Learning methodologies are incorporated in curriculum increased in terms of OBE. • National conference was planned to organize in subsequent year. • Student's activities are enhanced to increase their technical skills. • National level technical event VISTA2K18 was organized • Established NPTEL local chapter and faculties, students were encouraged to do online certification courses • Established Texas Instrumental IoT Lab.

2017-18	• Quality of question paper and standards where observed and all the faculty are following Blooms taxonomy. • Peer-to-peer and Collaborative learning activities are incorporated. • Student clubs “Techkrithi” and “Samskrithi” was established under CSEAC. • National level technical event VISTA2K17 was organized • Students projects where increased in terms of lasted treads in era of computer science and engineering. • Remedial classes are provided to slow learners. • Special GATE coaching classes is provided to advanced learners.
2016-17	• Students placements are increased • Student results are progressively increased for all semesters. • Latest courses like Hadoop and Python programming are explained with more number of additional programs and extra practical sessions provided. • Followed the Bloom’s taxonomy in the questions for mid examination • Fast track material is provided for slow learners. • National level technical event VISTA2K16 was organized

Table B.7.2.e: Audit committee actions- Continuous improvements

7.3. Improvement in Placement, Higher Studies and Entrepreneurship (10)

Assessment is based on improvement in:

A. Placement: number, quality placement, core industry, pay packages etc.

B. Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions.

C. Entrepreneurs.

A. Improvement in placement numbers, Quality, Core, Core Hiring and pay packages:

- Placement numbers
- Quality
- Core hiring industry
- Pay packages

Placement numbers:

The placement data of the program shows a progressive growth in terms of number of placements and offered packages. Campus recruitment training and Campus specific training helps every student in adapting the latest skills demanded by the industry. The following tables represent the number of placements for the assessment year LYG (2015-16), LYGm1 (2014-15), LYGm2 (2013-14). Below Table B.7.3.a summarizes the placements, higher studies and entrepreneur data we have achieved and average placement of 90% for the last three assessment years.

Item	LYG (2015-16)	LYGm1 (2014-15)	LYGm2 (2013-14)
Total No. of final year students (N)	183	170	155
No. of students placed in Companies or Government Sector (X)	165	142	131
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (Y)	2	6	8
No. of students turned entrepreneur in Engineering / Technology (Z)	1	0	1
X+Y+Z =	168.00	148.00	140.00
Placement Index: (X+Y+Z) / N	0.92	0.87	0.90
Average placement in percentage = (P1 +P2+P3) / 3 * 100	**90.00%**		

Table B.7.3.a: Placements, Higher studies, Entrepreneur data

Core Hiring Industry:

Below Table B.7.3.b provides placement data for the observed LYG (2015-16)and achieved 92% of placements with a maximum package of 18LPA.

Sl.No.	Name of the company	No of placements	Salary offered (in LPA)
1.	AMAZON	1	18.00
2.	TEKSYSTEMS	1	6.50
3.	SYNTEL	15	3.60
4.	TCS CODE VITA	1	3.60
5.	CAPGEMINI	7	3.50
6.	IBM	1	3.50
7.	INFOSYS	2	3.50
8.	K SOFT SOL	1	3.50
9.	TCS	9	3.50
10.	WIPRO	23	3.50
11.	COGNIZENT	1	3.38
12.	QSPIDERS/JSPIDERS	4	3.20
13.	REDCARPET	1	3.20
14.	PATH FRONT	16	3.00
15.	GLEN WOOD SYSTEMS	1	2.70
16.	MPHASIS	1	2.50
17.	CONDUENT	1	2.40
18.	IBEON INFOTECH	22	2.40
19.	IT SEZ	1	2.40
20.	THINKSYNQ	33	1.68
21.	IPROCESS	17	1.56
22.	KKR GOUTHAM SCHOOL	1	1.50
23.	TECHMBPS	2	1.50
24.	ABIBA	1	1.40
25.	FLEXTRONIX	1	1.40
26.	FOX CONN	1	1.40

Table B.7.3.b: Placement data for the LYG (2015-16)

Below Table B.7.3.c provides placement data for the LYGm1 (2014-15) and observed 87% of placements with a maximum package of 4.50 LPA.

Sl.No.	Name of the company	No of placements	Salary offered (in LPA)
1	ZOHO SOFTWARE LIMTIED	1	4.50
2	TCS	6	3.60
3	ACENTURE	2	3.50

4	ADP LIMITED	1	3.50
5	FLUNTGRID	2	3.50
6	IBM	10	3.50
7	MINDTREE	1	3.50
8	MOURITECH	1	3.50
9	IBM	9	3.25
10	INFOSYS	11	3.25
11	NEUDESIC	1	3.20
12	CAMPGEMINI	28	3.15
13	COGNIZANT(CTS)	1	3.15
14	FACE	10	2.64
15	THINKTEL SOLUTIONS	22	2.50
16	ACE	1	2.46
17	AMAZON	1	2.46
18	VDART SOFTWARE SOLUTIONS	6	2.00
19	KARVY	1	1.90
20	KIMS ICON	1	1.90
21	SUTHERLAND	9	1.85
22	TECH MAHINDRA	3	1.70
23	CHARTER GLOBAL INC	2	1.50
24	GRAMA SACHIVALAYAM	2	1.50
25	HCL	1	1.50
26	NAVAJNA TECHNOLOGIES	1	1.50
27	NSC LAB	1	1.50
28	OMNICLOUD	1	1.50
29	TRACXN TECHNOLOGIES	1	1.50
30	VLUEYONDER	1	1.50
31	IT KA KAAM	1	1.25
32	CPGC PVT.LTD	1	1.25
33	DXC TECHNOLOGIES	1	1.20
34	ESIDILITY INFO	1	1.20
35	GENPACK	1	1.20

Table B.7.3.c: Placement data for the year LYGm1 (2014-15)

Below Table B.7.3.d provides placement data for the LYGm2 (2013-14) and observed 90% of placements with a maximum package of 12.00 LPA.

Sl. No.	Name of the company	No of placements	Salary offered (in LPA)
1	JUSPAY	1	12.00
2	MICROSOFT	2	10.00
3	INNOCORE DIGIT	1	6.00
4	OPEN TEXT	2	5.00

5	FLUENTGRID	3	4.00
6	TECH MAHINDRA	34	3.25
7	TCS	2	3.25
8	CAPGEMINI	2	3.00
9	CICIUS HEALTH	1	2.40
10	THOUGHTWAVE	1	2.40
11	GENPACT	2	2.40
12	EXPERIS IT	5	2.10
13	GITAM UNIV	2	2.00
14	NBC TECH	1	2.00
15	MIRCALE SOFTWARE	1	2.00
16	TEMPLES OFTECH	1	2.00
17	METRIX LAB	1	2.00
18	DELL CAMPASSADOR	1	2.00
19	HCL	14	2.00
20	SUTHERLAND	20	2.00
21	ST. JOSEPH COLLEGE	1	2.00
22	SOFTCELL TECHNOLOGIES	1	2.00
23	LEENA SOFT	1	2.00
24	SERCO GOOGLE	2	2.00
25	INTELCT	1	1.73
26	HGS	12	1.73
27	EGS-INFOTECH PVT LTD	1	1.50
28	SAZAKX	1	1.40
29	PUPIL DESK	1	1.40
30	PATHRA TECH	1	1.40
31	GURJADA IT TECH	1	1.00
32	GOVT OF AP	1	1.00

Table B.7.3.d: Placement data for the year LYGm2 (2013-14)

Quality and pay packages:

Finally, the belowTable.B.7.3.e provides the improvement of pay package details in LPA of>4 ,=4 to >3,=3 to >2 ,=2 to >1 for LYG (2015-16), LYGm1 (2014-15), LYGm2 (2013-14) respectively.

Academic year	>4 (in LPA)	=4 to >3 (in LPA)	=3 to >2 (in LPA)	=2 to >1 (in LPA)
LYG (2015-16)	2	65	42	56
LYGm1(2014-15)	1	73	34	34
LYGm2(2013-14)	6	44	11	70

Table B.7.3.e: Average placement details

Impact Analysis of MNCs visiting Campus for last three Assessment years:

VIEW is dedicated to produce accepted professionals with skills and technical knowledge to meet the needs of MNC. The following are the MNC's visited the campus for consecutive assessment years **LYG (2015-16), LYGm1 (2014-15), LYGm2(2013-14)** proves the outcome of the B.Tech Computer Science and Engineering program.

S.No	Company	Frequency of companies visited to campus during LYG(2015-16), LYGm1(2014-15),LYGm2(2013-14)
1.	amazon	✓ Visited twiceto campus [(2018-19), (2017-18]
2.	Microsoft	✓ Visited twice to campus [(2017-18),(2016-17)]
3.	JUSPAY	✓ Visited one time to campus [(2016-17)]
4.	IBM	✓ Visited twice to campus [(2018-19), (2017-18)]
5.	Cognizant	✓ Visited three times to campus [(2018-19), (2017-18),(2016-17)]
6.	Capgemini	✓ Visited three times to campus [(2018-19), (2017-18),(2016-17)]
7.	TATA TATA CONSULTANCY SERVICES	✓ Visited three times to campus [(2018-19),(2017-18),(2016-17)]
8.	wipro	✓ Visited once to campus [(2018-19)]

9.	Infosys®	✓ **Visited twice to campus [(2018-19) (2017-18)]**
10.	accenture	✓ **Visited once to campus [(2017-18)]**
11.	Tech Mahindra	✓ **Visited twice to campus [(2017-18) & (2016-17)]**

Table B.7.3.f: List of Top MNCS Visited and frequency

B. Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions.

Assessment year	Registered Number	Student name	Branch/college
LYG (2015-16)	15NM1A0548	K.Likhitha	MBA (Dr.L.Bullaya College)
	15NM1A0505	Anujum Javeria	M.Tech (Andhra University)
LYGm1 (2014-15)	14NM1A05D0	G. Anusha	M.Tech (Andhra University)
	14NM1A05D6	K. Supraja	M.S CQ University (Australia)
	15NM5A0505	Ch. Bharathi	M.Tech (Andhra University)
	14NM1A0501	Afsheenfirdous	M.Tech (Andhra University)
	14NM1A0513	ChanchaliAnitha	M.Tech (JNTUK)
	14NM1A0534	Ganivada Mounika	M.Tech (GayatriEngg., College)
LYGm2 (2013-14)	13NM1A05B2	S. V. N. Srivalla	M.Tech (JNTUK)
	13NM1A0511	AvuthuPratyusha	MBA (JNTUK)
	13NM1A05C7	V.Manasa	M.Tech (Andhra University)
	13NM1A05B8	S.Tanuja Rani	M.Tech (Andhra University)
	14NM5A0520	Laxmi prassana	M.Tech (Andhra University)
	14NM5A0516	Subhasree	M.Tech (Andhra University)
	14NM5A0521	S.Divya	M.Tech

			(JNTUK)
	14NM5A0502	B.Mohan Laxmi	M.Tech (Andhra University)

Table B.7.3.g: Higher studies

C. Entrepreneurs

Assessment year	Roll number	Student name	Branch/college
LYG(2015-16)	15NM1A05D9	K.Bhavanshya	startup
LYGm1(2014-15)	NIL		
LYGm2(2013-14)	14NM5A0523	Krathi karuna	Freelancer Software development

Table B.7.3.h: Entrepreneurs

7.4 Improvement in the quality of students admitted to the program (10)

(Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students)

.

The following TableB.7.4 depicts the quality of students admitted into the CSE program. The EAMCET and ECET qualified students joined the program with a good academic merit in 12th standard /intermediate marks. The opening & closing ranks along with the average percentage is mentioned in the table.

Quality of students admitted to the program

Item		CAY 2019-20	CAY*m*1 2018-19	CAY*m*2 2017-18
Andhra Pradesh Engineering and Medical Common Entrance Test-AP-EAMCET	No. of Students admitted	187	171	177
	Opening Score/Rank	13782	9265	8392
	Closing Score/Rank	129264	125872	136645
Andhra Pradesh Engineering Common Entrance Test-AP-ECET	No. of Students admitted	18	21	14
	Opening Score/Rank	77	33	56
	Closing Score/Rank	5200	1280	950
Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Math's)		87.36	84.76	81.45

Table B.7.4: Improvement in the quality of students admitted

Criterion 8	First Year Academics	50 M

8.1	First Year Student Faculty Ratio (FYSFR)	5M
8.2	Qualification of Faculty Teaching First Year Common Courses	5M
8.3	First Year Academic Performance	10M
8.4	Attainment of Course Outcomes of First Year Courses	10M
8.5	Attainment of Program Outcomes for first year courses	20M

Criterion 8	First Year Academics	50M

8.1. First Year Student Faculty Ratio (FYSFR) (5)

Data for first year courses to calculate the FYSFR

Year	Number of students (approved intake strength) N	Number of faculty members (considering fractional load) F	FYSFR(N/F)	Assessment = (5×20)/FYSFR (Limited to Max. 5)
CAYm2 (2017-18)	660	43	15	5
CAYm1 (2018-19)	660	43	15	5
CAY (2019-20)	660	41	16	5
Average			**15**	**5**

Table B.8.1: First Year Student Faculty Ratio

*Note: If FYSFR is greater than 25, then assessment equal to zero.

8.2. Qualification of Faculty Teaching First Year Common Courses (5)

(Assessment of qualification = (5x +3y)/RF, x= Number of Regular Faculty with Ph.D., y = Number of Regular Faculty with Post-graduate qualification RF= Number of faculty members required as per SFR of 20:1, Faculty definition as defined in 5.1)

Year	X (Number of Regular Faculty with Ph.D.)	Y (Number of Regular Faculty with PG Qualification)	RF (Number of Faculty Members required as per SFR of 20:1)	(Assessment of faculty qualification) (5x+3y)/RF
CAYm2 (2017-18)	10	43	33	5.00
CAYm1 (2018-19)	14	42	33	5.00
CAY (2019-20)	10	42	33	5.00
Average assessment	**5.0**			

Table B.8.2: Faculty Qualifications

8.3 First Year Academic Performance (10)

(Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) x (number of successful students/number of students appeared in the examination) Successful students are those who are permitted to proceed to the second year.)

The curriculum for first year for all branches of engineering is followed as per the syllabus designed by the affiliating University JNTUK, Kakinada. Each course coordinator along with the respective faculty members discusses the aspects of the course curriculum and defines course objectives and outcomes in accordance with the University Regulations. Consequently, the Course Delivery Plan is prepared, approved and followed. This process is continuously monitored to achieve better academic performance from the faculty as well as students.

We have proved our strength in the domain of studies which is shown in our academic track record. Speaking of our strengths in 1stB.Tech education, we have been the toppers among the JNTUK affiliated colleges five times out of eight batches admitted so far. The other three times we stood in 3rd, 4th & 5th positions.

The Year wise academic performance of First-Year students is given below

Academic Performance	2019-20	2018-19	2017-18
Mean of CGPA of all successful students (X)	7.90	7.29	7.21
Total number of successful students (Y)	171.00	174.00	175.00
Total number of students appeared in the examination (Z)	171.00	177.00	179.00
API=X*(Y/Z)	7.90	7.17	7.04
Average API	**7.37**		

Table B.8.3: Year wise academic performance

8.4. Attainment of Course Outcomes of First Year Courses (10)

8.4.1. Describe the assessment processes used to gather data upon which the evaluation of course outcomes of first year is based (5)

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)

Course Outcomes are narrower statements that describe and define what students are expected to know and be able to do at the end of each course. They are the measurable parameters which evaluate each student's performance for each course. They cater to the knowledge, skills and behavior that students acquire in their journey/graduation through the course. Semester-wise assessment is done through one or more methods, identifying, collecting and preparing data to assess the performance of the Course Outcomes (COs). The methods are classified into two types: Direct methods and Indirect methods.

A. List of assessment processes (1)

Direct methods: This method reflect knowledge and skill levels of students through assessment tools such as class tests, mid exams, assignments, semester exams, seminars, laboratory assignments and examinations. These methods offer understanding about what students know and/or can do and provide evidence of levels of students' learning.

Indirect methods: This method includes course end survey and faculty assess the student's behavior. These components are utilized to gather further awareness about students' learning abilities and disabilities. Figure 8.4.1a and the Table 8.4.1a represent different methods of the assessment process which reflect attainment levels of the course outcomes, weightage factors and frequency of the assessment cycle.

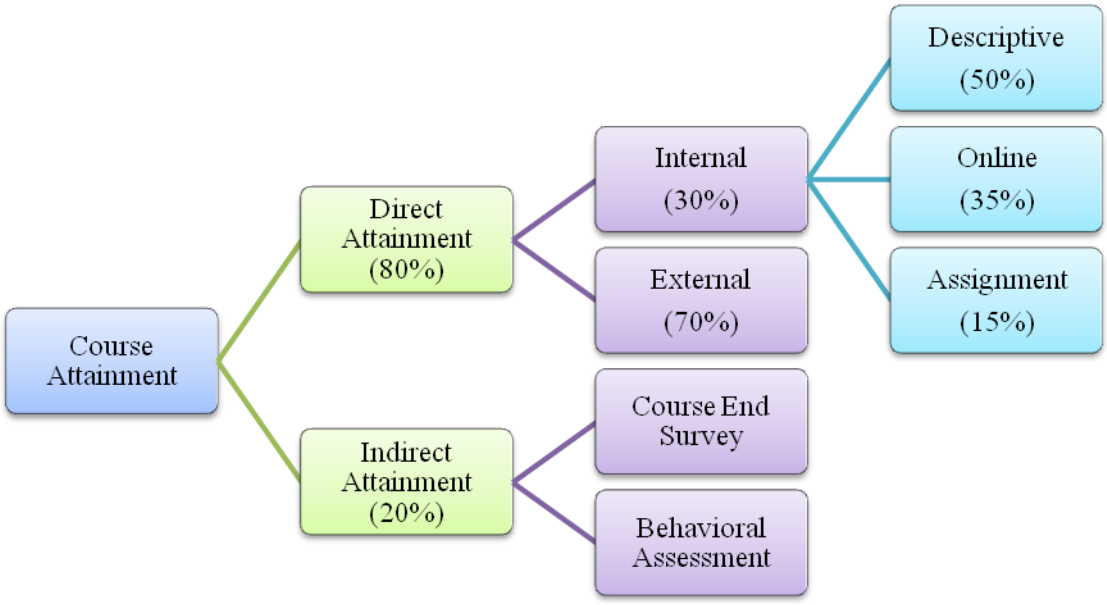


Figure B 8.4.1.a: Course attainment process with their weightages

B. The relevance of assessment tools used (4)

(i) CO Assessment Process for Theory Courses

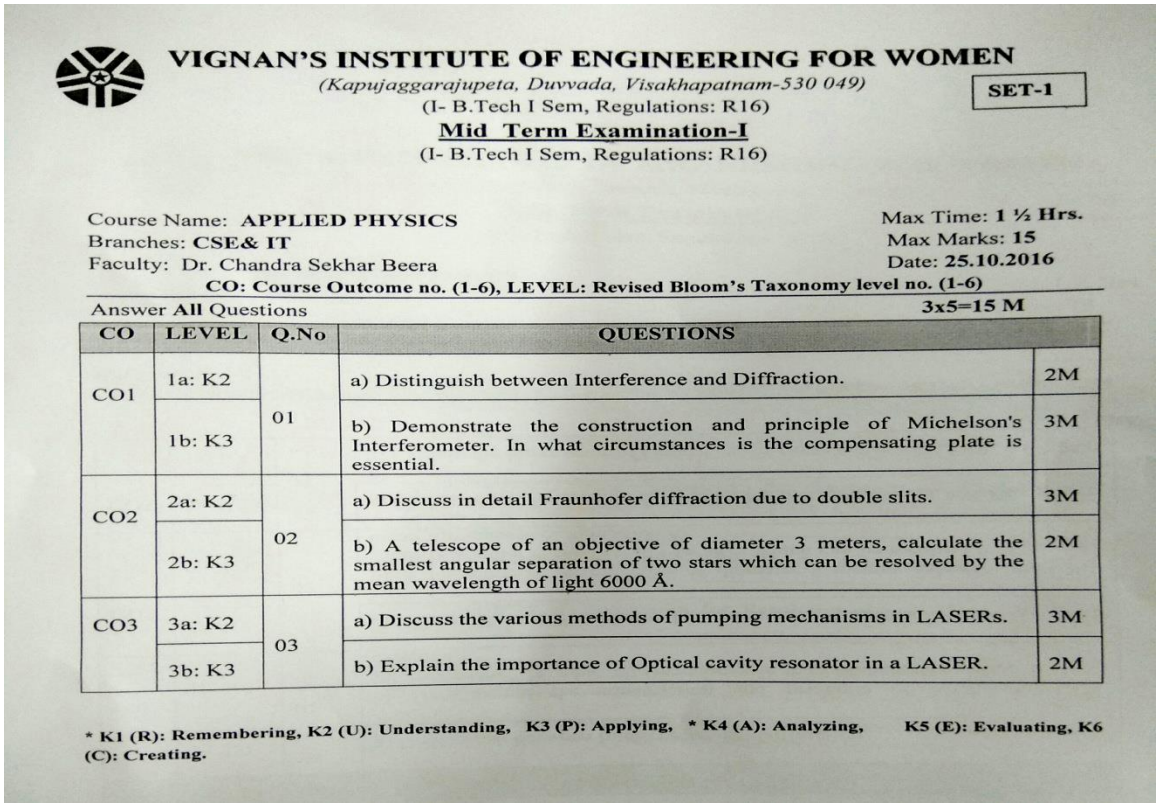
The Internal assessment of theory courses consists of two mid examinations and two online quiz examinations which are conducted as per the calendar released by JNTUK. For every mid examination, three assignments will be given.

Type of Assessment	Course Assessment and Evaluation Method	Assessment Frequency	Description	Weightage for Assessment	Weightage for CO Attainment
Direct Assessment	Internal Mid Examination	Twice in a Semester	• The internal assessment of the theory course is based on the two mid exams conducted each semester according to the academic calendar set by the University. • Each theory course examination should be set for a maximum of 15 marks in descriptive pattern. • The respective faculty prepares question paper as per the course outcomes for the relevant course by following the Blooms taxonomy and forwards the same to the Examination Cell. • Student performance is assessed in the mid exams according to the scheme of evaluation and key prepared by the respective course teacher.	30%	80%
	Online Quiz	Twice in a semester	• The online quiz for the theory courses is conducted along with the descriptive mid examination each semester by the University. • The online quiz examination consists of 20 objective questions for a maximum of 10		

			marks. • Quiz marks are recorded for assessing the attainment of COs		
	Assignments	Six in a semester (3 per each mid)	• Assignment is a metric used to assess students' analytical and problem-solving abilities. • Assignment questions are prepared for each topic/unit in the course. • Course related tasks are assigned to each student. • Marks are assigned depending on their performance & innovation in solving/deriving the problems. • The assignment works submitted by students are assessed towards CO attainment.		
	Semester End Examination	Once in a semester	• At the end of each semester, external examination is conducted for a maximum of 70 marks by the University. • End examination is set in descriptive pattern generally satisfying the all course outcomes.	70%	
Indirect Assessment	Course Exit Survey	End of Semester	• On completion of each semester, feedback is obtained from the students for the courses they have attended. • Recorded for assessing the attainment of COs		20%
	Behavioral Assessment	Throughout the Semester	• Each student is assessed based on participation and performance in Technical, Social Events & Extra-curricular activities		

Table B 8.4.1.a: Assessment tools for the calculation of course outcomes

Sample Mid - I Question Paper



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, Duvvada, Visakhapatnam-530 049)

(I- B.Tech I Sem, Regulations: R16) **SET-1**

Mid Term Examination-I

(I- B.Tech I Sem, Regulations: R16)

Course Name: **APPLIED PHYSICS** Max Time: **1 ½ Hrs.**
Branches: **CSE& IT** Max Marks: **15**
Faculty: Dr. Chandra Sekhar Beera Date: **25.10.2016**

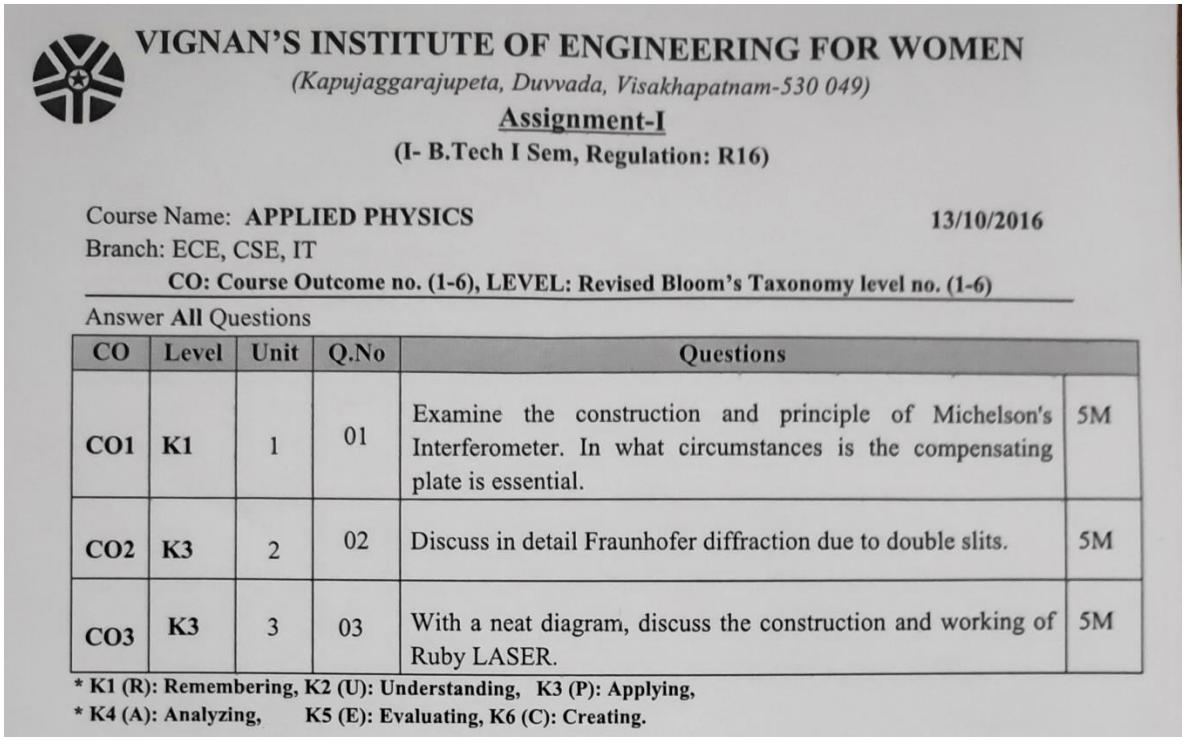
CO: Course Outcome no. (1-6), LEVEL: Revised Bloom's Taxonomy level no. (1-6)

Answer **All** Questions **3x5=15 M**

CO	LEVEL	Q.No	QUESTIONS	
CO1	1a: K2	01	a) Distinguish between Interference and Diffraction.	2M
	1b: K3		b) Demonstrate the construction and principle of Michelson's Interferometer. In what circumstances is the compensating plate is essential.	3M
CO2	2a: K2	02	a) Discuss in detail Fraunhofer diffraction due to double slits.	3M
	2b: K3		b) A telescope of an objective of diameter 3 meters, calculate the smallest angular separation of two stars which can be resolved by the mean wavelength of light 6000 Å.	2M
CO3	3a: K2	03	a) Discuss the various methods of pumping mechanisms in LASERs.	3M
	3b: K3		b) Explain the importance of Optical cavity resonator in a LASER.	2M

*** K1 (R): Remembering, K2 (U): Understanding, K3 (P): Applying, * K4 (A): Analyzing, K5 (E): Evaluating, K6 (C): Creating.**

Sample Assignment



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

(Kapujaggarajupeta, Duvvada, Visakhapatnam-530 049)

Assignment-I

(I- B.Tech I Sem, Regulation: R16)

Course Name: **APPLIED PHYSICS** **13/10/2016**
Branch: ECE, CSE, IT

CO: Course Outcome no. (1-6), LEVEL: Revised Bloom's Taxonomy level no. (1-6)

Answer **All** Questions

CO	Level	Unit	Q.No	Questions	
CO1	**K1**	1	01	Examine the construction and principle of Michelson's Interferometer. In what circumstances is the compensating plate is essential.	5M
CO2	**K3**	2	02	Discuss in detail Fraunhofer diffraction due to double slits.	5M
CO3	**K3**	3	03	With a neat diagram, discuss the construction and working of Ruby LASER.	5M

*** K1 (R): Remembering, K2 (U): Understanding, K3 (P): Applying,**
*** K4 (A): Analyzing, K5 (E): Evaluating, K6 (C): Creating.**

Behavioral Assessment

Students after entering into a professional program have to undergo a lot of qualitative change in terms of their behavior. During their four year stay at the institution this aspect has been taken seriously as a part of students' internal assessment. Strictly adhering to the curriculum prescribed by the University at the first-year level, the department of B S & H simultaneously follows a system of continuous assessment of the student by measuring and estimating their behavioral aspects in order to improve their attitude, values and behavior with respect to Program Outcomes. These aspects consist of

1. Social responsibility (PO 6)
2. Environmental consciousness (PO 7)
3. Ethical values (PO 8)
4. Team work (PO 9)
5. Communication Skills (PO 10)
6. Leadership skills (PO11)

Some activities are arranged to measure these aspects in students throughout the first year course work. They are:

- Interactive sessions by renowned personalities in the fields of social work, literature, movies, arts and industry.
- Social service activities such as conducting health camps, blood camps, eye-checkup camps; visits to near-by villages for service; visits to orphanages and under privileged places to offer the helping hand by kind and cash;
- Clean & Green activities consisting of Swatch Bharat; Plantation programs; promoting eco-friendly measures in religious and social occasions; Beach cleaning activity
- Sending students to industries and making them aware of their role as engineer
- Organizing picnics to promote harmonious social culture and togetherness
- Celebration of important days of national significance by involving the student teams right from the planning stage to execution stage in conducting those events
  - Celebrating all the religious and cultural festivals
  - Through Language Club essay writing competitions, poster presentations, group discussions and debates to improve their social awareness, expression capacities and confidence levels.

- Constant mentoring and counseling through Class Coordinator and Counselor system in sorting out their emotional and academic issues.
- Encouraging the students to actively participate in games & sports inside and outside the college to boost up their physical fitness and morale.

Rubric for Assessment of Behavioral Aspects

	Low – (1)	**Moderate – (2)**	**High – (3)**
Social Responsibility	No active participation	Able to participate but poor performance	Very active participation and performance
Environmental Consciousness	Low awareness levels	Adequate level of awareness	Well informed and putting into practice
Ethical Values	Ethical concerns are missing	Flexible attitude towards ethical values	Full appreciation of ethical values and following them
Team Work	Uneven role assignment and limited awareness about responsibilities	Fair distribution of workload and respect towards the team	Clearly defined roles & increased level of clarity, cooperation and respect
Communication Skills	Inadequate	adequate	Very effective
Leadership Traits	Passive	sufficient	Proactive and active listener

Table B.8.4.1.b: Rubric for behavioral assessment

Based on the level of ***participation and performance*** in the above-mentioned year long activities students will be assessed. Lowly scored students will be identified.

Corrective and Transformation Measures:

- Bringing them to the front in the next activity;
- Motivating them;
- Inspiring them;
- Taking personal interest in them and encouraging them to see others and read literature;
- Empathizing with their social & economic concerns and slowly changing their focus towards positivity
- Changing group composition within the section and mixing with other sections and branches

(ii) CO Assessment Process for Laboratory Courses

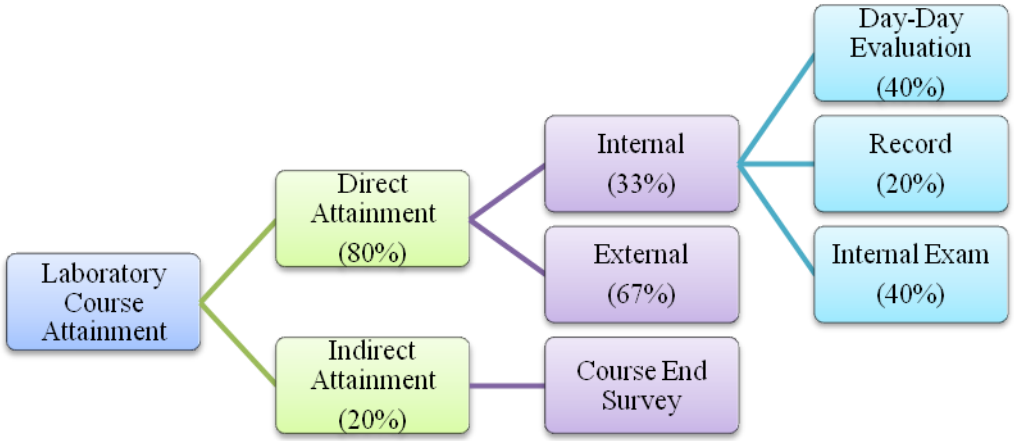


Fig. B 8.4.1b: CO assessment process for Laboratory with their weightages

Type of Assessment	Course Assessment and Evaluation Method	Description	Weightage for Assessment	Weightage for CO Attainment
Direct Assessment	Internal	• Lab Assignment/Experiment is a qualitative performance assessment tool designed to assess students' practical knowledge and problem-solving skills. • Internal assessment of students for laboratory courses is based on continuous evaluation of laboratory experiment work done by the students, their record work and performance in	33%	80%

		the internal examination. • Internal examinations are conducted by the respective faculty members. • Each laboratory course shall have a maximum of 25 internal marks. • The marks distribution for the laboratory courses is as follows ○ Continuous Assessment (10) ○ Record (5) ○ Internal Exam (10)		
	External	• End Semester practical examinations are the metric to assess the course outcomes. • External examination is conducted for a maximum of 50 marks by the University.	67%	
Indirect Assessment	Course Exit Survey	• On completion of each semester, feedback is obtained from the students for the courses they have attended. • Recorded for assessing the attainment of COs		20%

Table B.8.4.1.c: CO assessment process for Laboratory

Laboratory Continuous Assessment

A Continuous assessment for laboratory courses is done to enable a measurable rate of progress and learning for students throughout the course period. Regular monitoring facilitates scope for improvement and remedial action in assessing the performance of the students.

Assessment for Science Laboratory

Attendance	Experiment Procedure	Result	Handling / Safety	Record Submission
2	2	2	2	2

Assessment for Language laboratory

Attendance	Activity	LSRW Skills	Body Language	Activity Record
2	2	2	2	2

The Relevance of Assessment Tools Used:

- The assessment tools evaluate the student's knowledge and ability to apply their skills through continuous assessment process such as internal examinations, end semester examinations, presentations, assignments, tutorials etc. These tools reflect the levels of student learning. The weightage given for various assessment tools used for the attainment of Course Outcomes is shown in Table 8.4.1a & 8.4.1b
- The CO attainment level is measured based on internal assessment and external examination conducted by the University. It is a form of measure of direct attainment. The University conducts two internal exams for each course in a semester.
- In each exam, the percentage of students achieving a set target is calculated for the covered COs. After two tests, the average of these percentages is calculated to determine the attainment level. The guidelines for deciding the attainment levels are as follows:
    - Attainment Level 1: 60% of students' scores more than the target level.
    - Attainment Level 2: 70% of students' scores more than the target level.
    - Attainment Level 3: 80% of students' scores more than the target level.
- According to the weightage given by the University, 33% of the internal attainment and 67% of the external attainment is considered to be the course attainment through marks.
- Individual faculty will conduct the course end survey on the course outcomes at the end of every semester.
- Hence, 80% of the attainment level obtained through marks and 20% of the attainment level obtained through end survey, feedback, is considered to be the total Course Attainment

8.4.2. Record the attainment of the course outcomes of all first-year courses (5)

(The attainment levels shall be set considering average performance levels in the institution level examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the institution level examination)

The course outcome attainments for 2016-17, 2017-18 and 2018-19 are given below

CAYm3: 2016 – 17

Course Code	Course Name	Direct Attainment (DA) (80%)	Indirect Attainment (IA) (20%)	Course Attainment (DA+IA)
C101	English-I	1.88	0.59	2.47
C102	Mathematics-1	1.80	0.57	2.37
C103	Applied Physics	1.72	0.58	2.30
C104	Computer Programming	1.88	0.56	2.44
C105	Mathematics-II	1.80	0.54	2.34
C106	Engineering Drawing	2.40	0.58	2.98
C107	English Communications Skills Lab-I	2.40	0.57	2.97
C108	Applied Physics Lab	2.40	0.57	2.97
C109	Computer Programming lab	2.40	0.58	2.98
C110	English -II	1.96	0.57	2.53
C111	Mathematics -III	1.92	0.56	2.48
C112	Applied Chemistry	1.84	0.56	2.40
C113	Environmental Studies	2.16	0.56	2.72
C114	OOPS THROUGH C++	2.20	0.58	2.78
C115	Engineering Mechanics	1.68	0.59	2.27
C116	English Communications Skills Lab-II	2.40	0.58	2.98
C117	Applied Chemistry Lab	2.40	0.59	2.99

C118	OOPS THROUGH C++ LAB	2.40	0.58	2.98

Table B 8.4.2a: Course Outcome attainments for CAYm3 (2016-17)

CAYm2: 2017 – 18

Course Code	Course Name	Direct Attainment (DA) (80%)	Indirect Attainment (IA) (20%)	Course Attainment (DA+IA)
C101	English-I	2.32	0.57	2.89
C102	Mathematics-1	2.04	0.56	2.60
C103	Applied Physics	1.92	0.54	2.46
C104	Computer Programming	2.12	0.56	2.68
C105	Mathematics-II	1.84	0.56	2.40
C106	Engineering Drawing	2.32	0.58	2.90
C107	English Communications Skills Lab-I	2.40	0.57	2.97
C108	Applied Physics Lab	2.40	0.56	2.96
C109	Computer Programming lab	2.40	0.56	2.96
C110	English -II	2.04	0.56	2.59
C111	Mathematics -III	2.28	0.57	2.85
C112	Applied Chemistry	2.00	0.56	2.56
C113	Environmental Studies	2.32	0.58	2.90
C114	OOPS THROUGH C++	2.24	0.55	2.79
C115	Engineering Mechanics	1.84	0.57	2.41
C116	English Communications Skills Lab-II	2.40	0.58	2.98
C117	Applied Chemistry Lab	2.40	0.56	2.96
C118	OOPS THROUGH C++ LAB	2.40	0.56	2.96

Table B.8.4.2.b: Course Outcome attainments for CAYm2 (2017-18)

CAYm1: 2018 – 19

Course Code	Course Name	Direct Attainment (DA) (80%)	Indirect Attainment (IA) (20%)	Course Attainment (DA+IA)
C101	English-I	2.28	0.59	2.87
C102	Mathematics-1	2.12	0.54	2.66
C103	Applied Physics	2.04	0.55	2.59
C104	Computer Programming	2.04	0.56	2.60
C105	Mathematics-II	2.16	0.57	2.73
C106	Engineering Drawing	2.32	0.58	2.90
C107	English Communications Skills Lab-I	2.40	0.59	2.99
C108	Applied Physics Lab	2.40	0.58	2.98
C109	Computer Programming lab	2.40	0.58	2.98
C110	English -II	2.40	0.57	2.97
C111	Mathematics -III	2.20	0.56	2.76
C112	Applied Chemistry	2.04	0.55	2.59
C113	Environmental Studies	2.28	0.56	2.84
C114	OOPS through C++	2.24	0.57	2.81
C115	Engineering Mechanics	2.12	0.55	2.67
C116	English Communications Skills Lab-II	2.40	0.59	2.99
C117	Applied Chemistry Lab	2.40	0.58	2.98
C118	OOPS THROUGH C++ LAB	2.40	0.59	2.99

Table B.8.4.2.c: Course Outcome attainments for CAYm1 (2018-19)

The graphical representation of CO attainments for each course is presented below for the academic years 2016-17, 2017-18 and 2018-19 admitted batches.

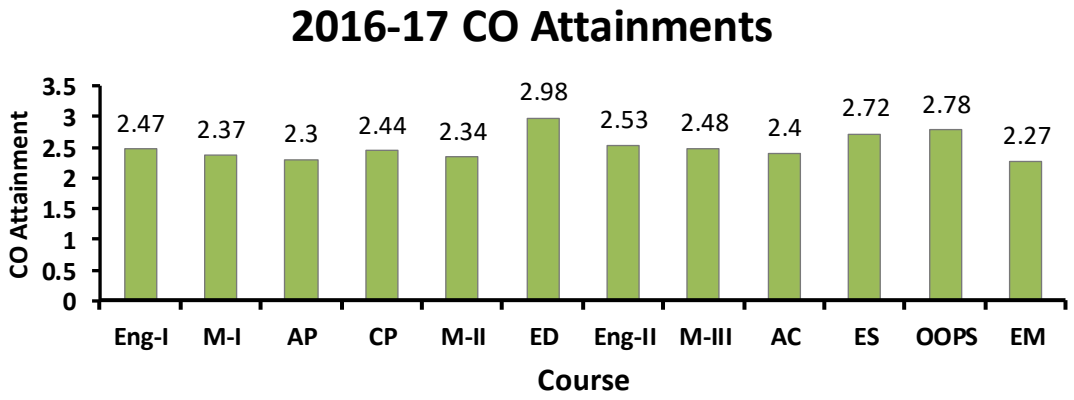


Figure B.8.4.2.a: Graphical representation of attainment levels of various courses during the academic year 2016 - 17

Observation: During 2016-17 academic year the attainment for the courses Mathematics-I, Applied Physics, Mathematics-III, and Engineering Mechanics was comparatively low. This may be due to lack of conceptual knowledge and grounding in Mathematics, Physics and Chemistry.

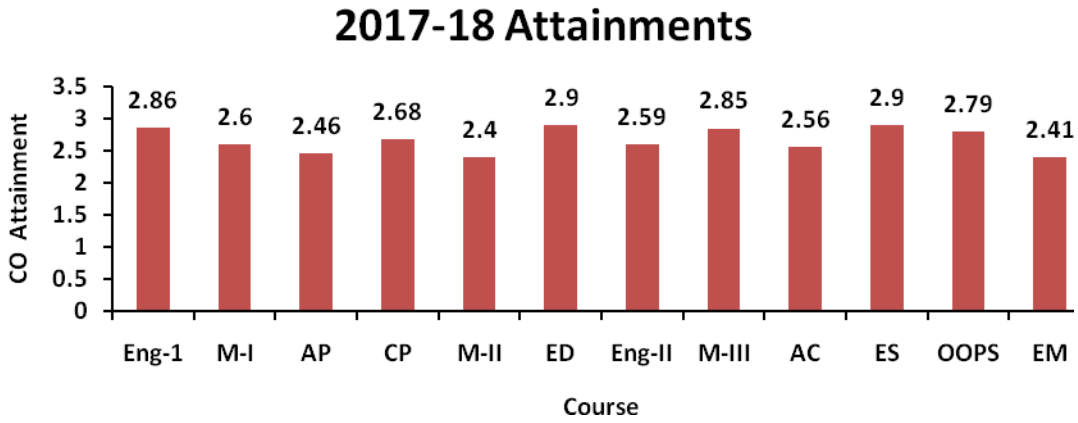


Figure B. 8.4.2.b: Graphical representation of attainment levels of various courses during the academic year 2017 – 18

Observation: During 2017-18 academic year, all the course attainments are above 2.4.

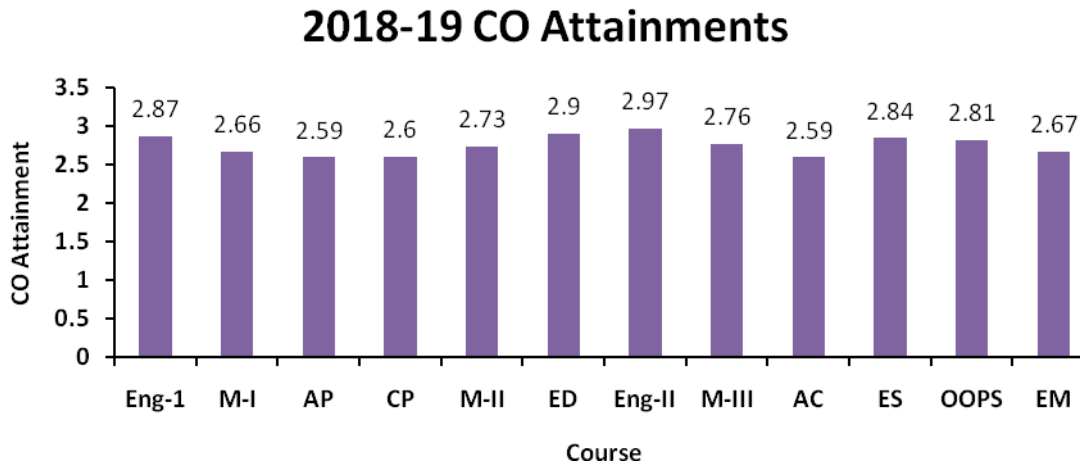


Figure B 8.4.2.c: Graphical representation of attainment levels of various courses during the academic year 2018 - 19

Observation: During 2018-19 academic year all the course attainments are above 2.4.

8.5. Attainment of Program Outcomes for first year courses (20)

8.5.1. Indicate results of evaluation of each relevant PO and/or PSO if applicable (15)

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

The process for calculating PO/PSO attainment for all first-year courses is presented below

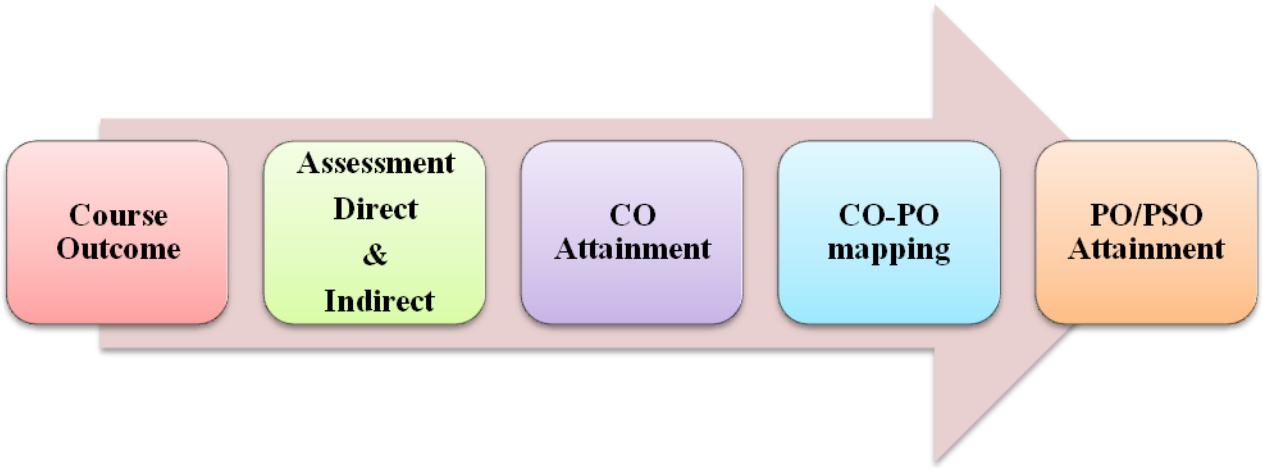


Figure B.8.5.1a: PO/PSO attainment process

- The Program Outcomes (POs)/Program Specific Outcomes (PSOs) are features that graduates can do after completing their program. At the end of each program, a PO / PSO assessment is done from the CO attainment of all curriculum components.
- For every Course, there are number of outcomes to be achieved at the end of the course.
- For each course, attainment level of all course outcomes is arrived at rigorously based on student performance in the internal and external examinations.
- All COs i.e., [CO_1, CO_2 …CO_6] are mapped to all POs i.e. [PO_1, PO_2 …PO_{12}] specified in a given course by correlating with the attainment levels (3, 2, 1) obtained in CO-PO mapping.
- A mapping matrix is prepared for every course and establishes a correlation between the course outcomes and program outcomes.
- After doing the CO-PO Mapping, the Course-PO attainment values are calculated using,

$$Course\text{-}PO\ attainment = \frac{(\text{Course-PO mapping}) * (\text{Course attainment})}{3}$$

- The average of all these attainments with respect to individual POs is calculated. This gives the direct PO attainment.

CAYm3: 2016 – 17

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	English-I	-	-	-	-	-	1.92	1.92	1.92	1.92	2.47	2.06	2.47
C102	Mathematics-I	2.37	2.37	2.37	2.37	-	2.37	1.98	1.98	-	-	1.98	2.37
C103	Applied Physics	2.30	2.04	2.30	2.30	-	2.30	2.11	2.11	-	-	-	2.04
C104	Computer Programming	2.17	2.17	2.03	2.03	2.03	-	-	-	2.03	-	-	2.03
C105	Mathematics-II	2.21	2.08	2.03	2.03	1.95	-	2.34	2.34	-	-	2.03	2.18
C106	Engineering Drawing	2.65	2.48	2.48	2.48	-	2.48	2.98	2.98	2.98	-	2.98	2.98
C107	English Communication Skill Lab-I	-	-	-	-	-	1.98	1.98	1.98	2.97	2.97	1.98	2.97
C108	Engineering Physics Lab	2.97	2.48	2.31	2.31	2.31	1.98	1.98	1.98	1.98	1.98	-	1.98
C109	Computer Programming Lab	2.98	2.65	2.32	2.32	2.32	-	-	2.32	2.32	-	-	-
C110	English-II	-	-	-	-	-	2.11	1.96	2.11	1.96	1.96	2.11	2.53
C111	Mathematics-III	2.48	2.48	2.48	1.93	-	1.93	1.93	1.93	-	-	1.93	2.48
C112	Applied Chemistry	2.40	2.40	2.00	2.00	-	2.00	2.00	2.00	-	-	-	2.00
C113	Environmental Science	-	-	2.27	-	-	1.81	2.04	2.04	2.04	-	2.11	2.11
C114	OOPS	2.78	2.32	2.08	2.16	2.16	-	-	-	2.78	-	-	2.78
C115	Engineering Mechanics	2.27	2.27	2.27	2.27	1.51	1.89	-	-	-	-	-	-
C116	English Communication Skill Lab-II	-	-	-	-	-	1.99	1.99	1.99	2.98	2.98	1.99	2.98
C117	Applied Chemistry Lab	2.66	2.33	-	2.49	2.49	-	1.99	-	1.99	1.99	-	1.99
C118	OOPS Lab	2.98	2.65	2.32	2.32	2.32	-	-	2.32	2.32	-	-	-
Direct Attainment		**2.56**	**2.36**	**2.25**	**2.23**	**2.14**	**2.06**	**2.09**	**2.14**	**2.36**	**2.39**	**2.13**	**2.39**

Table B. 8.5.1.a: Program Outcome attainment for CAYm3 (2016 – 17)

CAYm2: 2017 – 18

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	English -I	-	-	-	-	-	2.25	2.25	2.25	2.25	2.89	2.41	2.89
C102	Mathematics-1	2.60	2.60	2.60	2.60	-	2.60	2.16	2.16	-	-	2.16	2.60
C103	Applied Physics	2.46	2.19	2.46	2.46	-	2.46	2.26	2.26	-	-	-	2.19
C104	Computer Programming	2.38	2.38	2.23	2.23	2.23	-	-	-	2.23	-	-	2.23
C105	Mathematics-II	2.27	2.13	2.08	2.08	2.00	-	2.40	2.40	-	-	2.08	2.24
C106	Engineering Drawing	2.58	2.42	2.42	2.42	-	2.42	2.90	2.90	2.90	-	2.90	2.90
C107	English Communications Skills Lab-I	-	-	-	-	-	1.98	1.98	1.98	2.97	2.97	1.98	2.97
C108	Applied Physics Lab	2.96	2.47	2.30	2.30	2.30	1.97	1.97	1.97	1.97	1.97	-	1.97
C109	Computer Programming Lab	2.96	2.63	2.30	2.30	2.30	-	-	2.30	2.30	-	-	-
C110	English-II	-	-	-	-	-	2.16	2.01	2.16	2.01	2.16	2.16	2.59
C111	Mathematics-III	2.85	2.85	2.85	2.22	-	2.22	2.22	2.22	-	-	2.22	2.85
C112	Applied Chemistry	2.56	2.56	2.13	2.13	-	2.13	2.13	2.13	-	-	-	2.13
C113	Environmental Studies	-	-	2.42	-	-	1.93	2.18	2.18	2.18	-	2.26	2.26
C114	OOPS THROUGH C++	2.79	2.33	2.09	2.17	2.17	-	-	-	2.79	-	-	2.79
C115	Engineering Mechanics	2.41	2.41	2.41	2.41	1.61	2.01	-	-	-	-	-	-
C116	English Communications Skills Lab-II	-	-	-	-	-	1.99	1.99	1.99	2.98	2.98	1.99	2.98
C117	Applied Chemistry Lab	2.63	2.30	-	2.47	2.47	-	1.97	-	1.97	1.97	-	1.97
C118	OOPS THROUGH C++ LAB	2.96	2.63	2.30	2.30	2.30	-	-	2.30	2.30	-	-	-
Direct Attainment		**2.65**	**2.45**	**2.35**	**2.31**	**2.17**	**2.18**	**2.19**	**2.23**	**2.40**	**2.49**	**2.24**	**2.50**

Table B.8.5.1.b: Program Outcome attainment for CAYm2 (2017 – 18)

CAYm1: 2018 – 19

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	English -I	0	0	0	0	0	2.23	2.23	2.23	2.23	2.87	2.39	2.87
C102	Mathematics-1	2.66	2.66	2.66	2.66	0	2.66	2.22	2.22	0	0	2.22	2.66
C103	Applied Physics	2.59	2.30	2.59	2.59	0	2.59	2.37	2.37	0	0	0	2.30
C104	Computer Programming	2.31	2.31	2.17	2.17	2.17	0	0	0	2.17	0	0	2.17
C105	Mathematics-II	2.58	2.43	2.37	2.37	2.28	0	2.73	2.73	0	0	2.37	2.55
C106	Engineering Drawing	2.58	2.42	2.42	2.42	0	2.42	2.90	2.90	2.90	0	2.90	2.90
C107	English Communications Skills Lab-I	0	0	0	0	0	1.99	1.99	1.99	2.99	2.99	1.99	2.99
C108	Applied Physics Lab	2.98	2.48	2.32	2.32	2.32	1.99	1.99	1.99	1.99	1.99	0	1.99
C109	Computer Programming Lab	2.98	2.65	2.32	2.32	2.32	0	0	2.32	2.32	0	0	0
C110	English-II	0	0	0	0	0	2.48	2.31	2.48	2.31	2.48	2.48	2.97
C111	Mathematics-III	2.88	2.88	2.88	2.24	0	2.24	2.24	2.24	0	0	2.24	2.88
C112	Applied Chemistry	2.59	2.59	2.16	2.16	0	2.16	2.16	2.16	0	0	0	2.16
C113	Environmental Studies	0	0	2.37	0	0	1.89	2.13	2.13	2.13	0	2.21	2.21
C114	OOPS THROUGH C++	2.81	2.34	2.11	2.19	2.19	0	0	0	2.81	0	0	2.81
C115	Engineering Mechanics	2.67	2.67	2.67	2.67	1.78	2.3	0	0	0	0	0	0
C116	English Communications Skills Lab-II	0	0	0	0	0	1.99	1.99	1.99	2.99	2.99	1.99	2.99
C117	Applied Chemistry Lab	2.65	2.32	0	2.48	2.48	0	1.99	0	1.99	1.99	0	1.99
C118	OOPS THROUGH C++ LAB	2.99	2.66	2.33	2.33	2.33	0	0	2.33	2.33	0	0	0
Direct Attainment		**2.71**	**2.52**	**2.41**	**2.38**	**2.23**	**2.24**	**2.25**	**2.29**	**2.43**	**2.55**	**2.31**	**2.56**

Table B.8.5.1.c: Program Outcome attainment for CAYm1 (2018 – 19)

PSO ATTAINMENTS

CAYm3: 2016-17

Course Code	Subject	PSO1	PSO2
C101	English -I	1.65	-
C102	Mathematics-1	1.98	-
C103	Applied Physics	1.79	-
C104	Computer Programming	1.76	2.17
C105	Mathematics-II	1.43	-
C106	Engineering Drawing	1.98	-
C107	English Communications Skills Lab-I	1.98	-
C108	Applied Physics Lab	1.98	-
C109	Computer Programming Lab	2.32	2.32
C110	English-II	1.68	-
C111	Mathematics-III	1.65	-
C112	Applied Chemistry	1.6	-
C113	Environmental Studies	-	-
C114	OOPS THROUGH C++	2	2.47
C115	Engineering Mechanics	1.51	-
C116	English Communications Skills Lab-II	1.99	-
C117	Applied Chemistry Lab	1.99	-
C118	OOPS THROUGH C++ LAB	2.32	2.32

Table B.8.5.1.d: Program Specific Outcome attainment for CAYm3 (2016 – 17)

CAYm2: 2017-18

Course Code	Subject	PSO1	PSO2
C101	English -I	1.93	-
C102	Mathematics-1	2.16	-
C103	Applied Physics	1.91	-
C104	Computer Programming	1.94	2.38
C105	Mathematics-II	1.47	-
C106	Engineering Drawing	1.93	-
C107	English Communications Skills Lab-I	1.98	-
C108	Applied Physics Lab	1.97	-
C109	Computer Programming Lab	2.30	2.3
C110	English-II	1.73	-
C111	Mathematics-III	1.90	-
C112	Applied Chemistry	1.71	-
C113	Environmental Studies	-	-
C114	OOPS THROUGH C++	2.01	2.48
C115	Engineering Mechanics	1.61	-
C116	English Communications Skills Lab-II	1.99	-
C117	Applied Chemistry Lab	1.97	-
C118	OOPS THROUGH C++ LAB	2.30	2.3

Table B.8.5.1.e: Program Specific Outcome attainment for CAYm2 (2017 – 18)

CAYm1: 2018-19

Course Code	Subject	PSO1	PSO2
C101	English -I	1.91	0
C102	Mathematics-1	2.22	0
C103	Applied Physics	2.01	0
C104	Computer Programming	2.31	2.31
C105	Mathematics-II	1.67	0
C106	Engineering Drawing	1.93	0
C107	English Communications Skills Lab-I	1.99	0
C108	Applied Physics Lab	1.99	0
C109	Computer Programming Lab	2.32	2.32
C110	English-II	1.98	0
C111	Mathematics-III	1.92	0
C112	Applied Chemistry	1.73	0
C113	Environmental Studies	0	0
C114	OOPS THROUGH C++	2.03	2.50
C115	Engineering Mechanics	1.78	0
C116	English Communications Skills Lab-II	1.99	0
C117	Applied Chemistry Lab	1.99	0
C118	OOPS THROUGH C++ LAB	2.33	2.33

Table B.8.5.1.f: Program Specific Outcome attainment for CAYm1 (2018 – 19)

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (5)
(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)
PO Attainment Levels and Actions for improvement – CAYm1 only – Mention for relevant POs

- ✓ Regular analysis of the results of internal assessment examination of all subjects is done and concerned teachers are guided to take necessary corrective action.
- ✓ Remedial classes are conducted for the academic progress of slow learners.
- ✓ PO-wise actions recommended to bridge the identified gap between target and attainment levels are as follows

CAYm1: 2018-19

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	2.40	2.71	• Target is achieved. • Attainment can be increased further for course C104 [CP]
Action Taken: 1.Proposed to conduct awareness program on "Importance of C Programming to solve complex engineering problems" 2.One-week foundation course on Pointers, structures and typedef in C104 [CP] is to be conducted.			
PO2: Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	2.40	2.52	• Target is achieved. • Attainment can be increased further for courses C103 [AP], C104 [CP], and C114 [OOPS] •Rising conceptual discomfort in seeing the link among basic science concepts and engineering.
Action Taken: 1.Tutorial classes will be planned with more examples in concepts like inheritance, Polymorphism and abstraction C114. 2. Bridge course and foundation courses to be conducted to plug the gap existing between intermediate course mathematics and engineering Mathematics. 3. Extra classes will be conducted for topics like quantum mechanics and semi conductor physics with more examples. 4. Tutorial classes with more examples are proposed for C104 & C114 to enhance the analyzing ability.			
PO3: Design Development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	2.40	2.41	•Target is not achieved. •Attainment can be increased further for courses C104 [CP], C105 [M-II], C112 [AC], C113 [ES] and C114 [OOPS] •Design aspects are lagging in laboratory experiments.
Action Taken: 1. As this is related to designed part which is absent in the curriculum, exposure to virtual labs is planned. During library hours students are encouraged to utilize online resources for enhancing their design visualization capacities. 2. Animation demonstrations are proposed for C112. 3. Reasoning based assignments for C104, C105, and C114 are proposed to reinforce the design skills.			

<table>
<tr><td colspan="4">PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.</td></tr>
<tr><td>PO4</td><td>2.40</td><td>2.40</td><td>• Target is not achieved.
• Attainment can be increased further for courses C104 [CP], C105 [M-II], C111 [M-III], C112 [AC], and C114 [OOPS]
• Insufficient data reading abilities</td></tr>
<tr><td colspan="4">Action Taken:
1. Application oriented problems are to be included in the assignments for C105 [M-II] and C111 to enhance their problem-solving skills.
2. Additional tutorial classes for C104 and C114 to be conducted to solve complex problems.
3. Students are encouraged to analyse and interpret the data related contempary issues C112 [AC]</td></tr>
<tr><td colspan="4">PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.</td></tr>
<tr><td>PO-5</td><td>2.40</td><td>2.23</td><td>• Target is not achieved.
• Attainment can be increased further for courses C104 [CP], C105 [M-II], C114 [OOPS] and C115 [EM]
• Limited awareness about application techniques in dealing with problems of complex engineering data.</td></tr>
<tr><td colspan="4">Action Taken:
1. Video lessons on modeling concepts of derivatives and integrations for C105.
2. Building awareness about modeling and simulation packages through virtual lab visits for C115.
3. Additional tutorial classes with senior faculty to be conducted for C104 and C114 to know more about advancement in programming tools.</td></tr>
<tr><td colspan="4">PO 6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.</td></tr>
<tr><td>PO-6</td><td>2.20</td><td>2.24</td><td>• Target is achieved.
• Attainment can be increased further for courses C112 [AC], and C113 [ES]
• Inadequate understanding of the role of engineer.</td></tr>
<tr><td colspan="4">Action Taken:
1. Orientation programme “Role of Engineer in the society” by industry experts in the first two weeks of induction.
2. Encourage students to participate in NSS activities to fill the gap between Engineering education and society.</td></tr>
<tr><td colspan="4">PO 7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</td></tr>
<tr><td>PO-7</td><td>2.20</td><td>2.25</td><td>• Target is achieved.
• Attainment can be increased further for courses C112 [AC], and C113 [ES]
• Improvement is desired in environmental consciousness.</td></tr>
</table>

<table>
<tr><td colspan="4">Action Taken:
1.Involving students in yearlong activities such as plantation, eco-friendly practices and campaigns for reducing carbon emissions.
2.Expert lectures are planned to improve consciousness on environment and sustainability issues.
3.Tutorial classes should be conducted with more examples for carbon emission in C112and C113.</td></tr>
<tr><td colspan="4">PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</td></tr>
<tr><td>PO-8</td><td>2.20</td><td>2.29</td><td>• Target is achieved.
• Attainment can be increased further for courses C112 [AC], and C113 [ES]
• Insufficient understanding of role of ethics in engineering</td></tr>
<tr><td colspan="4">Action Taken:
1. Organize guest lecture on “Professional Ethics” by motivational speakers.
2. Teachers leading the students by example in matters of sincerity punctuality and commitment to duty.</td></tr>
<tr><td colspan="4">PO 9: Individual and Team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</td></tr>
<tr><td>PO-9</td><td>2.20</td><td>2.43</td><td>• Target is achieved.
• Attainment can be increased further for courses C104 [CP], and C113 [ES].
• Students need to be more team oriented.</td></tr>
<tr><td colspan="4">Action Taken:
1. Students are motivated to organize more events through “English Language Club”.
2. Students are encouraged to involve in organizing events and competitions on Independence day, women’s day and Republic day .
3. Group discussions will be arranged for C104 in developing simple applications using C programming.</td></tr>
<tr><td colspan="4">PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.</td></tr>
<tr><td>PO-10</td><td>2.20</td><td>2.55</td><td>• Target is achieved.
• Improvement is desired in exhibiting effective communication and language skills</td></tr>
<tr><td colspan="4">Action Taken:
1. Involving students in language club activities
2. Organizing interactive seminars by in-house faculty as well as guests.
3. Organized British Council and Oxford Achievers Programmes for language enhancement.</td></tr>
<tr><td colspan="4">PO 11: Project management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</td></tr>
<tr><td>PO-11</td><td>2.20</td><td>2.31</td><td>• Target is achieved.
• Insufficient leadership characteristics</td></tr>
</table>

Action Taken: 1. An awareness program is to be conducted on financial and Project management. 2. Involving Class representatives and their classmates in monitoring conduct of class Action. 3. Students are to be motivated to take active role in technical, sports and cultural activities.			
PO 12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
PO-12	2.20	2.56	• Target is achieved. • Attainment can be increased further for course C112 [AC]
Action Taken: 1. Enable students to take up online courses like NPTEL, SWAYAM on recent technologies. 2. Students are encouraged to attend national level competitive exams. 3. Motivate the students to make use of web sources.			

Table B.8.5.2.a: PO attainment levels and action taken for CAYm1 (2018 – 19)

PSOs Attainment Levels and Actions for Improvement

CAYm1: 2018-19

PSOs	Target Level	Attainment Level	Observations
PSO 1: Graduates Exhibit Knowledge of basic sciences, skills in engineering specialization like information security, cloud computing, networking, software engineering and data analytics.			
PSO1	2.4	2.00	• Target is not achieved. • Attainment can be increased further.
Action 1: Basic level guest lectures will be arranged on latest technologies like cloud computing. Action 2: Awareness program is to be arranged on basics of information security.			
PSO 2: Graduates can adapt to evolving technologies for design and development of full stack applications, exploring with optimal programming Skills.			
PSO 2	2.4	2.36	• Target is not achieved. • Attainment can be increased further.
Action 1: Awareness program on stack applications Optimal programming.			

Table B.8.5.2.b: PSO attainment levels and action taken for CAYm1 (2018 – 19)

Criterion 9	Student Support Systems	50

9.1 Mentoring system to help at individual level (5)

Type of mentoring: Professional guidance/career advancement/course work specific/laboratory specific/allround development. Number of faculty mentors: Number of students per mentor: Frequency of meeting: (The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)

9.1.1 Student Mentoring System

Vignan's Institute of Engineering For Women Strongly believes that Student Mentoring system plays a vital role in empowering the women student's at individual level. Unless a student is ready to learn, whatever may be the intelligence quotient of the student/efficiency of the teacher; learning cannot takes place accurately. In this context, VIEW has an efficient student mentoring system of allotting 20 students to every faculty to address not only the academic/curricular issues but also other issues like economic issues, teenage problems, emotional problems and psychological issues. Number of faculty mentors at VIEW are ***107*** in total among the programs CSE (34), ECE (34), EEE (29) and IT(11).

9.1.2 Objectives of the Student Mentoring System:

The objectives of the Mentoring System at 'VIEW' are:

A. To monitor and enhance the student's regularity & discipline
B. To monitor and enhance the students's academic/curricular performance.
C. To counsel the students and provide confidence to improve their quality of life by addressing their issues such as:
    - Economic Issues
    - Teenage Issues
    - Health Issues
    - Emotional Issues
    - Psychological Issues
D. To engage the parents in the continual improvement of their ward's performance.
E. To encourage student's participation in co-curricular & extra-curricular activities with a balanced academic performance.

F. To guide the students towards campus recruitment, higher education, research & entrepreneurship.

9.1.3 Process of Mentoring at VIEW:

Process of Mentoring student's at VIEW was developed to **achieve** the **objectives** of the Student Mentoring system in the following attributes:

A. Regularity & Discipline

- Once in a week, every faculty/mentor will informally meet their allotted student's/mentee's for counselling and making a note of their status in the respective Student Mentoring Book.
- During the counselling, if the student was observed to be performing good they will be appreciated. If the student was observed to be non-attentive/non-performer/irregular, the exact reasons/issues will be identified by the mentor and will be given with enough counselling/support in resolving/addressing the concerned issues.

B. Academic/Curricular Performance:

- In the first stage at the begininning of every semester, the faculty/mentor will address the allotted students regarding the details of academics in the semester and evaluation procedure in line with the respective PO's, PEO's, Mission, Vision at program and institute level.
- The detailed performance evalution/results for every assessment will be noted down in the respective student mentoring book.
- If the student/mentee performance is good then she will recommended for Merit Scholarship else she will be guided and tutored to improve her performance.

C. Other Issues to increase confidence of Student/Mentee to improve their quality of life:

- Economic Issues: During the counselling process, if any student/mentee was observed to be suffering financial crisis impacting their performance will be recommended for various opportunities such as MEAN Scholarships.
- Teenage Issues: During the counselling process, if any student/mentee was observed to be having issues like adolescence, including social media, body image, substance use and sleep will be conselled accordingly in resolving issues at mentor level and

even if the issues still persists the student/mentee will be directed to grieviance and redressal cell for further counselling through Program Coordinator.

- Health Issues: During the counselling process, if any student/mentee was observed to be having any health problem disturbing their performance will be inspected with Health Club with concerned parent consent. Where if the issue deserves a doctors consulation, the primary consultation will be borned by the institution and further recommendations will be handed over to the parent.
- Emotional Issues: During the counselling process, if any student/mentee was observed to be having emotional issues chronic discipline problems, is truant often, temper trantrums, lack of empathy/compassion, bullying others, causing damage to others properties, having conflicts with parents and authority figures will be counselled accordingly. Even if the issue continues to persist, student/mentee will taken for further counselling with Program Coordinator.
- Psychological Issues: During the counselling process, if any student/mentee was observed to be suffering from psychological issues like depression, stress, anxiety, eating disorders, self injury, bipolar disorder and phychotic will be counselled for the resolution. Even if the issues continues to persist the student/mentee will be recommended to a psychologist consultation through program coordinator and parents.

D. Engaging Parents for continual improvement: The attendance, performance report and the counselling remarks will be constantly shared with parents daily, monthly and whenever it is necessary. A daily SMS for regularity, monthly attendance report, performance and counselling whenever it is necessary will be shared with the parents.

E. Co-curricular & Extra-curricular Activities: During the counselling process, a student/mentee observed to be keen or excelling in any co-curricular or extra-curricular will be given proper guidance towards a balanced learning to maintain better performance in academics and the concerned activity as well. Such student/mentee will be forwarded to the respective clubs for her participation and further guidance in national & international level.

F. Campus recruitment, higher education, research & entrepreneurship: During the counselling process, the faculty/mentor will understand the goal of the students regarding her career and guide her towards achieving her goals by recommending her active participation towards Trainings, Seminars, Conferences, Workshops, Publications,

Projects, etc., At every stage, the student/mentee will be monitored and report will be maintained cumulatively to motivate them for a better career opportunity.

9.1.4. Efficasy of the Mentoring system:

Students will be able to:

- Improve their attendance percentage leading to low detention rates.
- Students who perform badly in initials tests can improve due to the assignments given, question paper solving and effective guidance.
- Register better academic performance.
- Lead a quality learning life with confidence.
- Succeed in Campus Placements and career building.

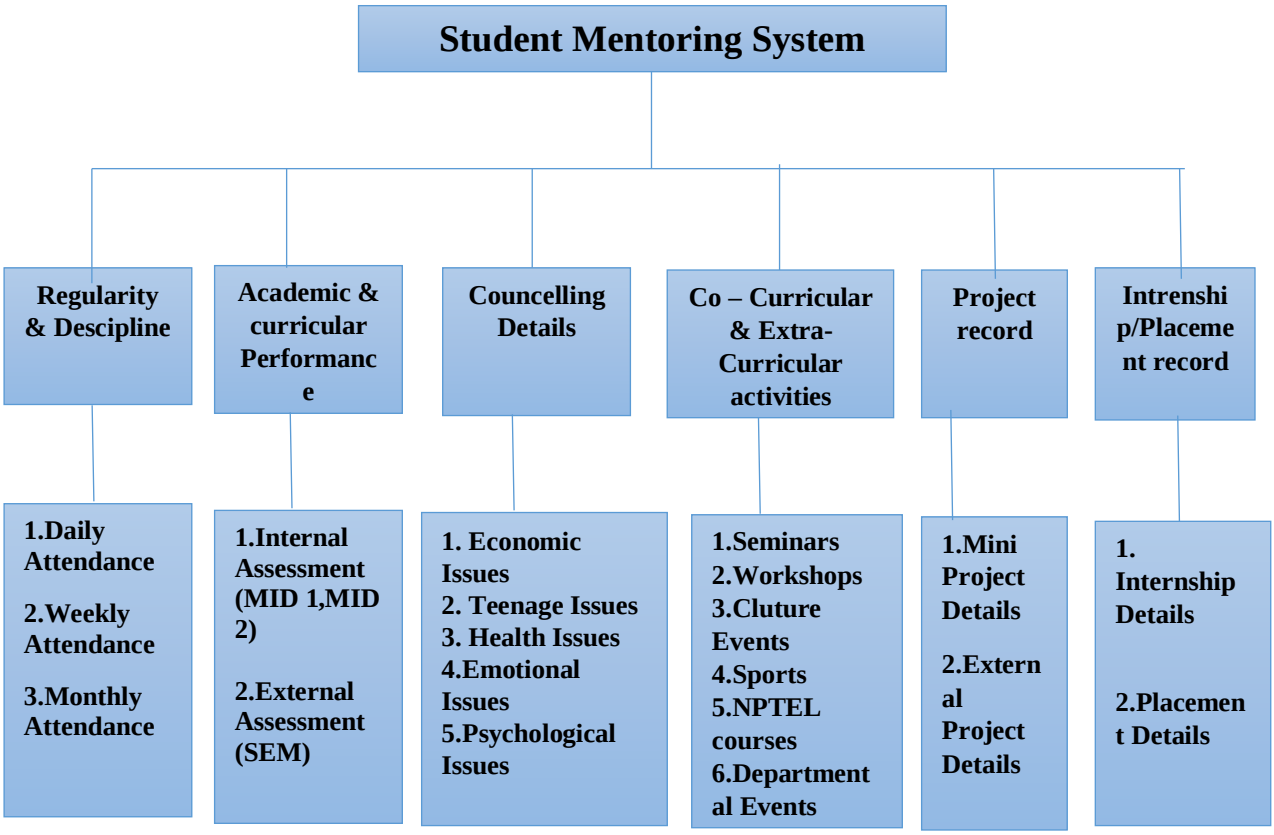


Figure B.9.1.1: Flow chart of Student Mentoring System

Imapct through Counselling on Special Issues:

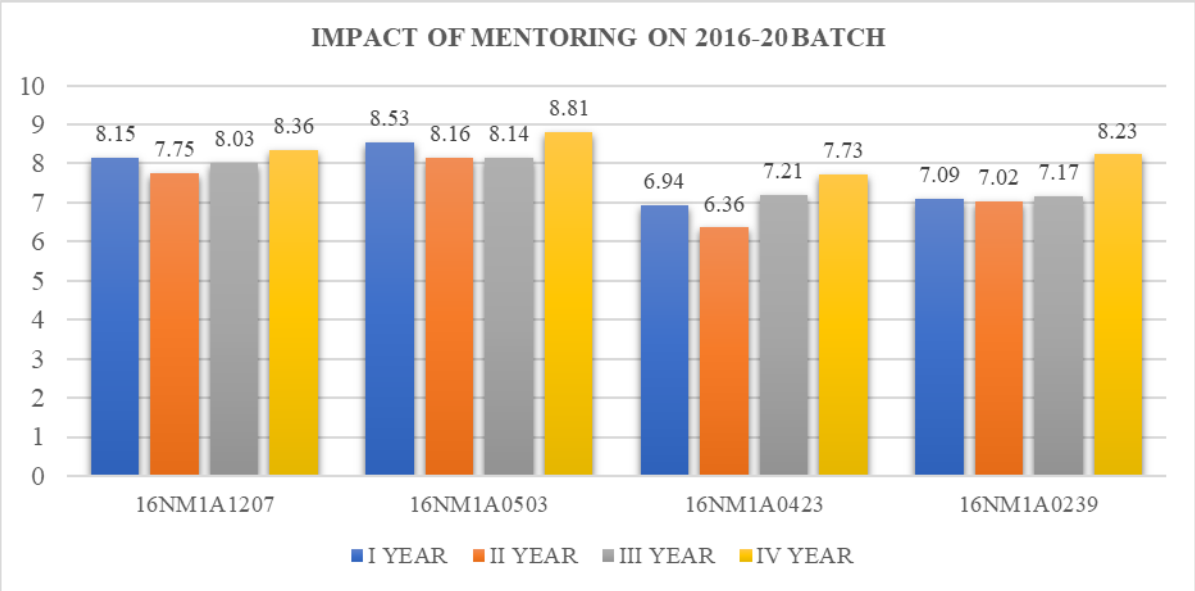
S No	Name of student	Nature of Problem	Status of student (Issue)	Counselling or Support given	Efficasy
1	15NM1A0218 G.Naga Puspa	Academic/ Curricular Performance	Backlogs problem	1.Organising extra classes 2.Remedial and tutorial classes held for preparing remedial exams.	Cleared all the active backlogs
2	16NM1A05G7 M.Keerthi	Regularity & Descipline	Irregularity problem	1. Asking about the reason of irregularity. 2. Motivated to attend regularly by explaining the value of education.	Regularity Improved
3	15NM1A1205 A. Lalitha sri diya	Psychological Issues	Depression problem	1. Knowing the reason and motivated the student by showing the motivational and spiritual videos. 2. Daily interacted with student to know the status of her.	Student participated and interacted actively.
4	17NM1A0562 Joba Kumari Preethi	Economic Issues	Financial problem	1. Asking about the reason and motivated the student to study well in order to get institute provide mean and merit scholarship.	Student received mean scholarship provided by the institute.
5	16NM1A0275 R.JHANSI	Teenage Issues	Love failure	1. Knowing the reason and guide the student to choose the right path and also said about the importance of parents and how they are struggling about her.	Student choose the correct path and focused on studies.
6	16NM1A1228 K.Bhargavi	Academic/ Curricular Performance	Dropping the college due to unable to understand the concepts	1. Knowing the reason and suggested easy ways to understand the concepts through online videos and also provided study materials to prepare the exams. 2. Assisted good knowledgeable students also.	The student continued in the college and cleared all the subjects.

7	16NM1A05G8 P. Tanmay	Health Isuues	Irregularity problem due to health issues	1. Asked about the reason and suggested to submit the medical certificate and also informed about important of attendance to write exams.	She submitted medical certificate and tried to come regularly.
8	17NM1A0593 L.Trisha	Psychological Issues	Behaviour problem	1. Knowing the reason and explained about the importance of behaviour and human ethics through youtube videos.	She changed her attitude and interacted with classmates nicely.

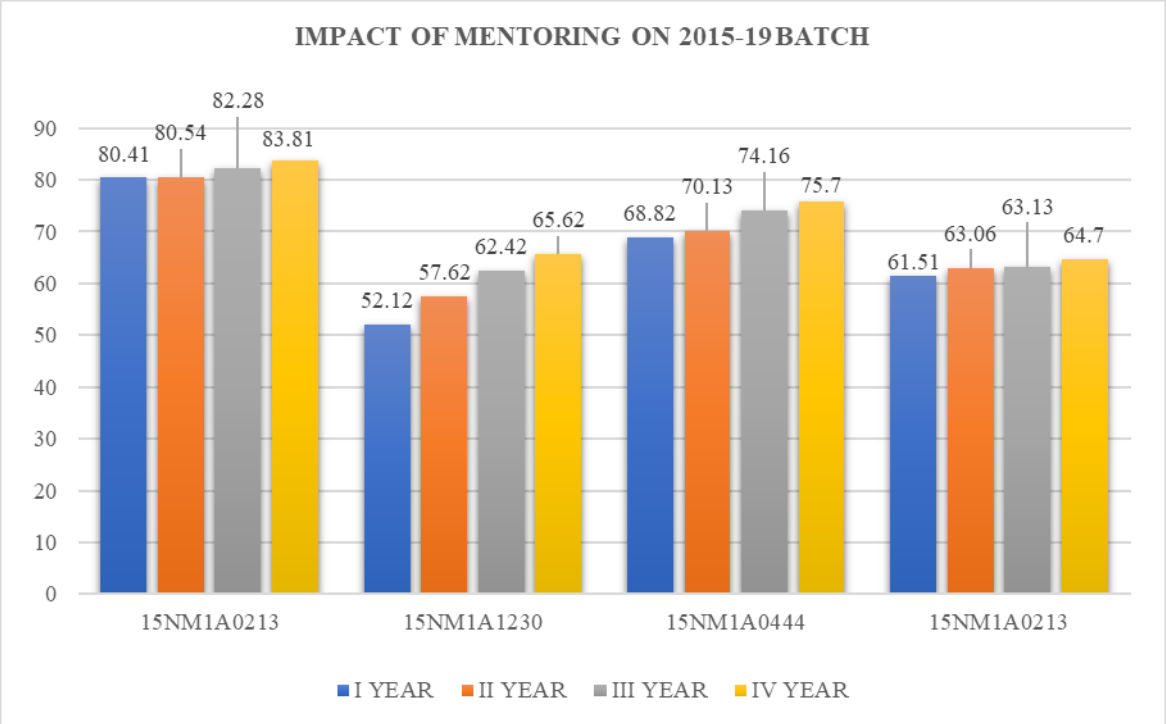
Table B.9.1.1: Imapct through Counselling on Special Issues:

9.1.5. Impact through counselling on Academic Performance:-

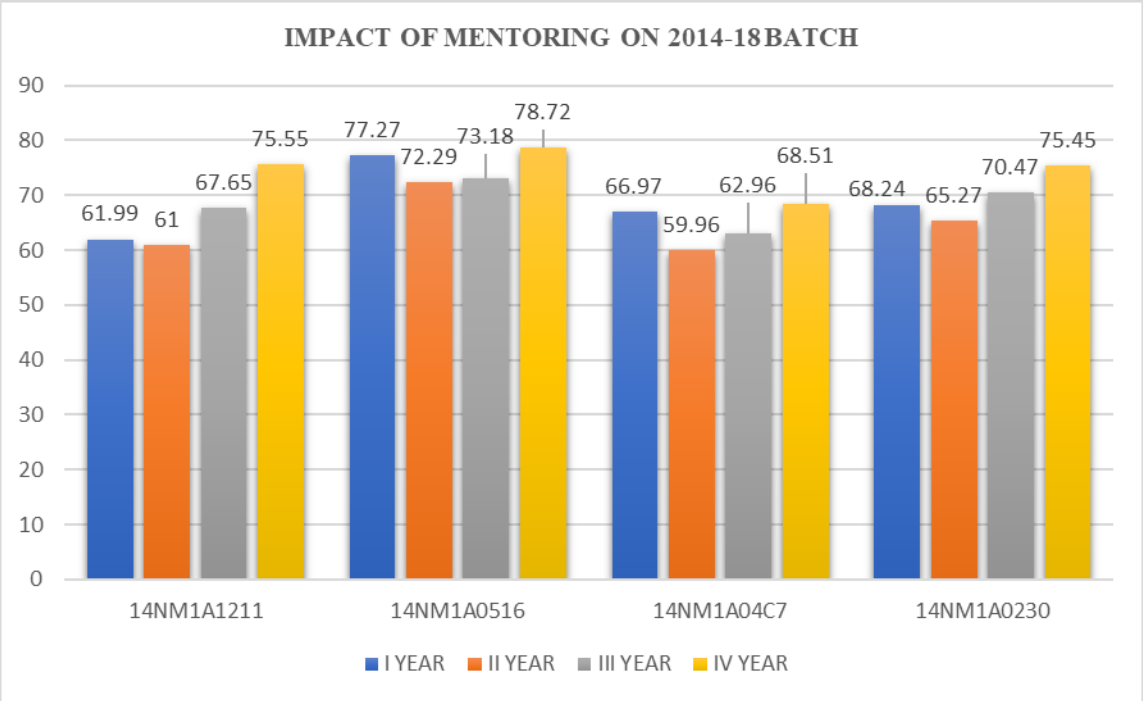
The Academic/Curricular performance of the Student's/Mentee's was good upto their First academic year. Later in the second year their academic performance was fall down due to not able to clarify their doubts intime with inferority complex. In order to improve their academic performance, proper mentoring and guidance was provided with the help of student mentoring system by respective mentor. So that, it was observed student's/mentee's performance was improved in the further academic years.



16NM1A207 | 16NM1A053 | 16NM1A0423 | 16NM1A0239



15NM1A0513	15NM1A1230	15NM1A0444	15NM1A0213

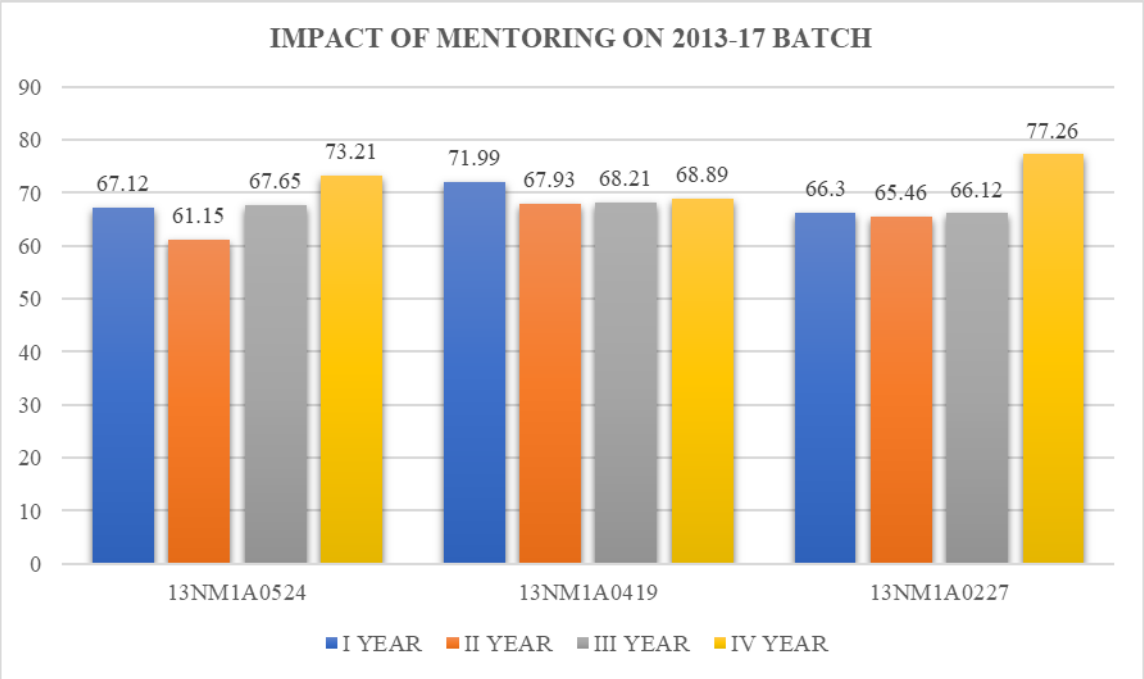


14NM1A1211

14NM1A0516

14NM1A04C7

14NM1A0230



13NM1A0524

13NM1A0419

13NM1A0419

The institute intiated Merit scholarship to encourage and appreciate the students/mentees acdamic performance. The merit scholarship is recommended to students/mentees who secured highest aggregates in their academic years at institute rank wise and departmental rank wise.

S.No	Academic year	Number of Selected students to Merit scholarship			
		CSE	ECE	EEE	IT
1	2017-18	3	6	5	6
2	2018-19	6	9	5	4

9.1.6. Impact through counselling on Economic Issues

The faculty/mentor not only observes performance of the student/mentee in academic perspective but also observes their financial background and it's impact on their academics. So, the faculty/Mentor suggests such an identified students for various scholarshpis and the college intiated mean scholarships.The list of selected students to mean scholarship for acdameic year 2018-2019.

S.No	Academic year	Number of Selected students to Mean scholarship			
		CSE	ECE	EEE	IT
1	2017-18	14	25	17	8
2	2018-19	32	15	20	4

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
(Approved by AICTE, New Delhi & Affiliated to JNTUK)
Kapujaggarajupeta, VSEZ (Post) Visakhapatnam – 530 049
Phone: 9133300357, 8886066339 Email:viewvizag@yahoo.com

STUDENT DETAILS: -

Student Name :

Date of birth :

Year of Admission :

Registered no :

Branch : **Photo**

Section :

Father/ Guardian :

Mother :

Student mobile no :

Parent mobile no :

Occupation :

E mail Id :

Permanent address :

Present address : Hostler/Day Scholar Availing Bus Facility: Yes/No

Education Details

S.No	Education	Board	School	CGPA/%
1	X			
2	XII/Inter/			
3	Diploma			

Admission Details

Quota : Convenor/Mgmt EAMCET/ECET Rank :

Category : SC/ST/BC/OC Sub Category :

ATTENDANCE DETAILS

I B.Tech. I Semester

Date of commencement of Semester:

S. No	As on	Conducted hours (Cumulative)	Attended hours (Cumulative)	Attendance (%)	Remarks
1					
2					
3					
4					
5					
6					
7					

ACADEMIC PERFORMANCE

S. No	Subject	Mid – 1	Mid – 2	Internal	End exam	Month/year of passing
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
CGPA						
No. of Backlogs in Current Semester:						
Total No. of Active Backlogs:						

COUNSELLING / MENTORING REPORT

Name of the Mentor:

Date	Mentor Remarks	Student Signature	Mentor Sign

Special Issues

Economic Issues: _____

Issue: _____ Suggestion: _____ Outcome: _____

_____ _____ _____

Teenage Issues: _____

Issue: _____ Suggestion: _____ Outcome: _____

_____ _____ _____

Health Issues: _____

Issue: _____ Suggestion: _____ Outcome: _____

_____ _____ _____

Emotional Issues: _____

Issue: _____ Suggestion: _____ Outcome: _____

_____ _____ _____

Psychological Issues:

_____

Issue: _____ Suggestion: _____ Outcome: _____

_____ _____ _____

Additional Comments: _____

_____

_____

_____

Head of the Department **Principal**

DETAILS OF CO-CURRICULAR / EXTRA CURRICULAR ACTIVITES

Date(s)	Year/ Sem	Event Details	Participation Details	Awards (If Any)

**Event Details includes Name of the Event, Organized By & In Association with*

Project Record

S.No	Year/Sem	Title	Guide Name	Remarks

Internship/Placement Record

S.No	Year/Sem	Intern/Placement	Organization	Stipend/Pay	Duration

PARENT VISIT SHEET

Date	Name & Relation	Purpose	Contact	Signature

9.2. Feedback analysis and reward /corrective measures taken (10)

Feedback collected for all courses: YES/NO; Apecify the feedback collection process; Average percentage of students who participate; Specify the feedback analysis process; Basis of reward/ corrective measures, if any; Indices used for measuring quality of teaching & learning and summary of the index values for all courses/teachers; Number of corrective actions taken.

In VIEW, sampling technique is the methodology used for the feedback collection on teaching learning process. A feedback form illustrated in figure B.9.2.2 resembles the format of colletion of feedback.

Feedback collection, analysis and evaluation at our institute is as follows:

Step-1 Collection of feedback forms for all the subjects from the students based on parameters specified in the questionnaire.

Step-2 Estimation of average for all the parameters and calculation of cumulative otherwise called threshold.

Step-3 After the recommendations of Priincipal, the threshold value will be finalized. The normal value setup at present is 8

Step-4 If the threshold exceeds 8, it will be considered as good. If it is less, the faculty performance is considered as average or below average.

Step-5 If the faculty receives good performance, he will be rewarded with monitory benefits (additional increment). If he/she receives average or below-average performance, he/she gets counselling and allows them to get correct their performances.

Figure B.9.2.1 illustrates the flowchart implemented for the corrective actions taken against the feedback analysis.

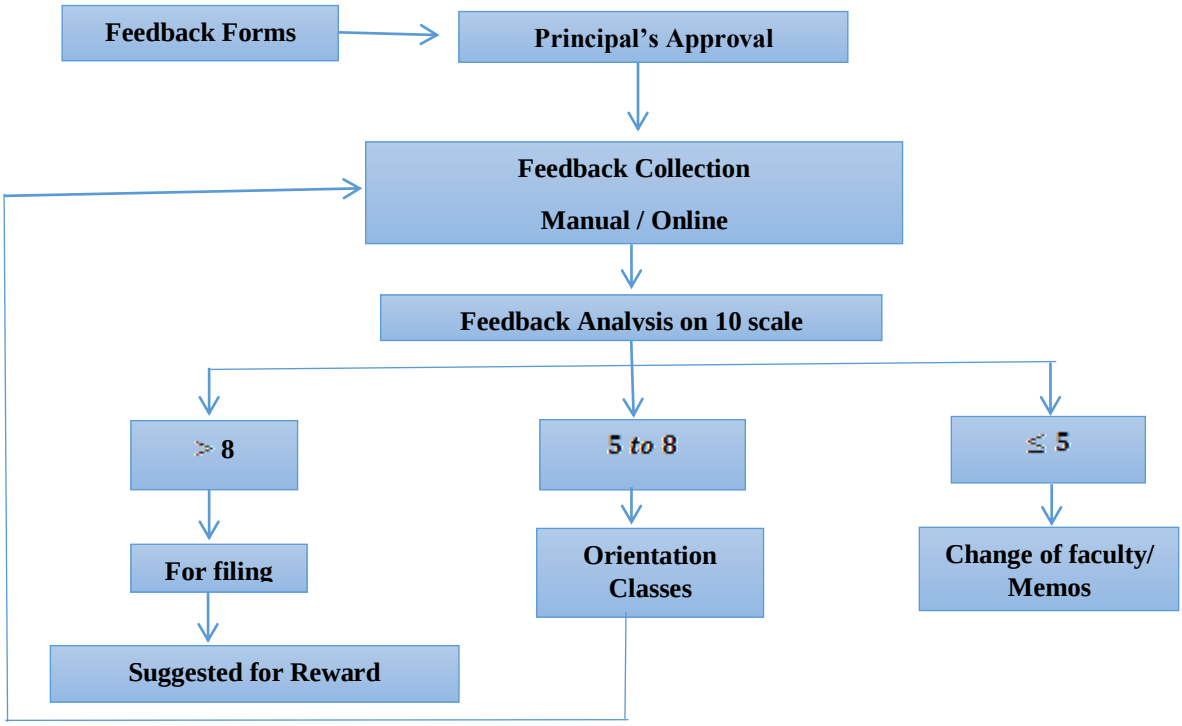


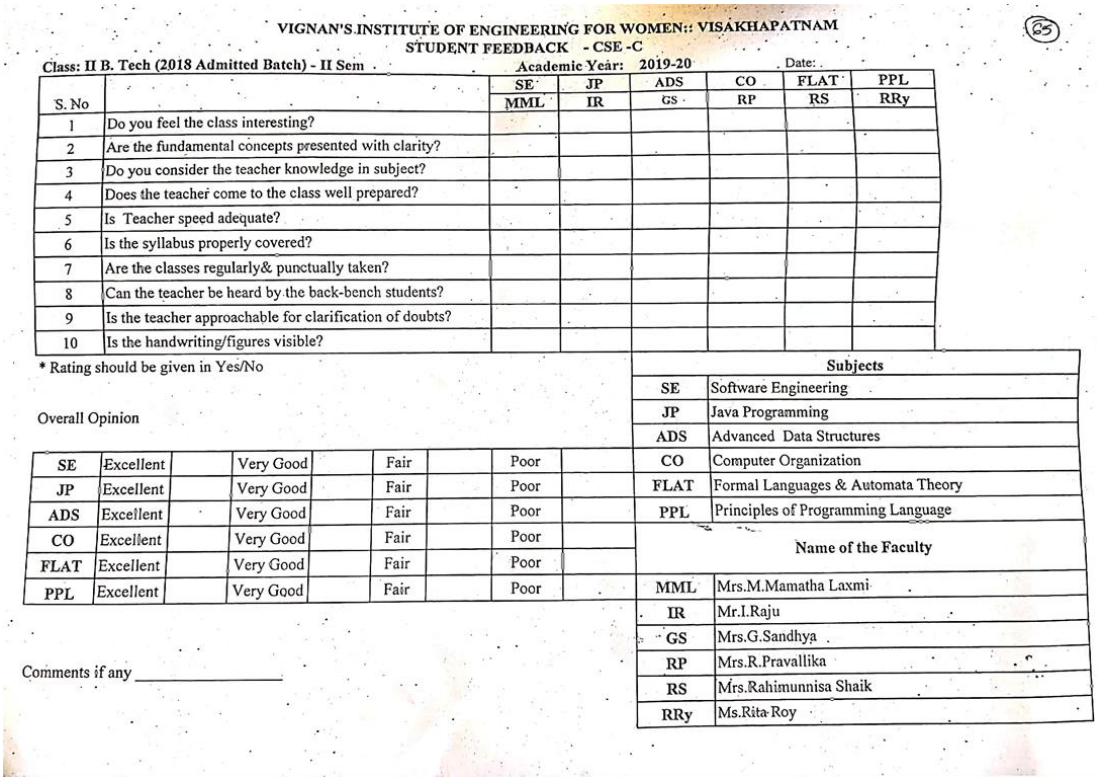
Figure B.9.2.1: Flowchart for feedback analysis process

9.2.1. Feedback collection process

Feedback is collected against the format shown in figure 9.2.2 once in a semester before Mid-I assessment from the students having attendance greater than 75% at the time of collecting feedback.

Percentage of students participating: 90% (Approximately)

Specify the feedback analysis process: The feedback is collected on 10 Parameters on a 10 point scale as shown below.



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN:: VISAKHAPATNAM
STUDENT FEEDBACK - CSE -C

Class: II B. Tech (2018 Admitted Batch) - II Sem Academic Year: 2019-20 Date:

S. No		SE MML	JP IR	ADS GS	CO RP	FLAT RS	PPL RRy
1	Do you feel the class interesting?						
2	Are the fundamental concepts presented with clarity?						
3	Do you consider the teacher knowledge in subject?						
4	Does the teacher come to the class well prepared?						
5	Is Teacher speed adequate?						
6	Is the syllabus properly covered?						
7	Are the classes regularly& punctually taken?						
8	Can the teacher be heard by the back-bench students?						
9	Is the teacher approachable for clarification of doubts?						
10	Is the handwriting/figures visible?						

* Rating should be given in Yes/No

Overall Opinion

SE	Excellent		Very Good		Fair		Poor
JP	Excellent		Very Good		Fair		Poor
ADS	Excellent		Very Good		Fair		Poor
CO	Excellent		Very Good		Fair		Poor
FLAT	Excellent		Very Good		Fair		Poor
PPL	Excellent		Very Good		Fair		Poor

Comments if any _____

Subjects	
SE	Software Engineering
JP	Java Programming
ADS	Advanced Data Structures
CO	Computer Organization
FLAT	Formal Languages & Automata Theory
PPL	Principles of Programming Language

Name of the Faculty	
MML	Mrs.M.Mamatha Laxmi
IR	Mr.I.Raju
GS	Mrs.G.Sandhya
RP	Mrs.R.Pravallika
RS	Mrs.Rahimunnisa Shaik
RRy	Ms.Rita Roy

Figure B.9.2.2. Student Feedback Form

9.2.1 Methodology followed for the analysis of Feeback on Teaching-Learning Process

Acquired feedback will be analyzed based on 4 points using the following methodology. Where Excellent (A), Very good (B), Fair (C),Poor (D)

Table B.9.2.1: Sample analysis of feeback on Teaching-Learning Process

S.No	Name of the faculty	Designation	subject	Grades				Total strength	A+B+C+D	Over all index (10)
				A	B	C	D			
1	XXXXX	Asst.Prof	XXX	42	12	0	0	54	54	9.56

10% Overall Index Scale: A = 10, B = 8, C = 4, D = 0

Calculation: $\frac{(A\times10)+((B\times8)+(C\times4)}{Total\ strength}$

9.2.2 Effectiveness of Methodology being followed for analysis of feedback

Effectiveness of the methodology being followed was illustrated based on feedback indicator. Feedback indicator is value of average feedbacks employed by the faculty in a department over a batch of students during their entire academics. This feedback indicator was evaluated for the CAY, CAYm1,CAYm2 for all the programs and illustrated in the figure B.9.2.3.

From the figure B.9.2.3, there is a gradual improvement in the Teaching-Learning Process among all the programs for the last three academic years consistently with the methodology implemented for the analysis of feedback.

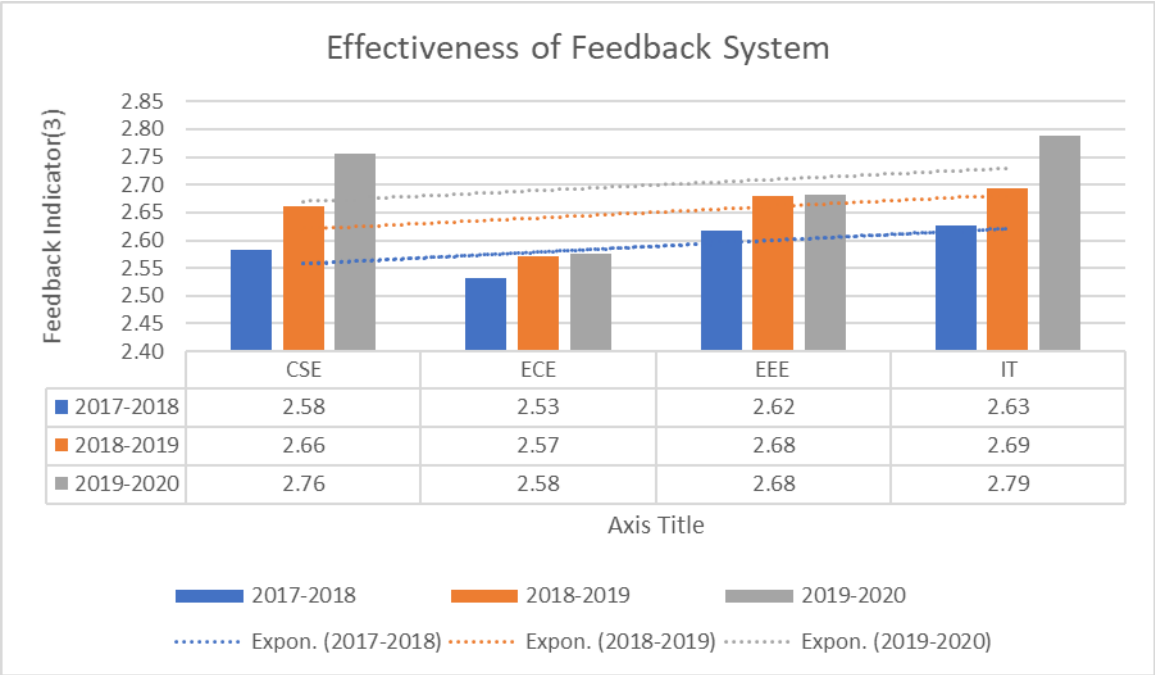


Figure B.9.2.3: Effectiveness of Feedback System

9.2.3. Corrective actions taken and it's efficacy of the Feedback analysis:

In the process of feedback analysis to improve the teacher learning process, a unique process was developed. After the evaluation of feedbacks, faculty who received below 8 will be listed out for further evaluation either through a orientation class or recommended to attend FDP's etc,. Faculty recommended for orientations class will be listed out and sent for principal's office further actions. A record of corrective actions taken were maintained cumulatively for all the three batches. Through principal's office a notification will be issued regarding the orientations to be delivered for the improvement of teaching learning process. A committee will be constituted including Principal along with two program specific internal faculty members and one program specific external member with similar expertise. The recommendations of the committee will be constituted and will given to faculty undergoing orientation will be given a specific time to improve his skills for a better teaching learning process. After the specified time, the faculty will be analysed against the feedback during his delivery in the same class and will be assessed based on the feedback taken again. Further improvements or guidelines will be forwarded to principal

office accordingly. A list of such record of corrective actions taken were detailed below in table B.9.2.2 for reference.

Table B. 9.2.2. Record of corrective actions taken based on feedback:

Academic Year 2019-20								
SNo	**Program**	**Date**	**Faculty**	**Topic**	**Corrective Actions**	**Feedback (10)**		**Comments**
						Before	**After**	
1	ECE	09.07.19	Mrs.B.Manjula	Pulse code Modulation	Try to finish off the core concept in first 35 Mins	7.52 III-I (DC)	8.57	Very Good
2	CSE	05.07.19	Mrs.M. Mamatha Laxmi	File system Implementations	Each topic should be clear so that students will understand better. Submit lecture notes.	7.81 II-II (SE)	8.87	Average.
Academic Year 2018-19								
SNo	**Program**	**Date**	**Faculty**	**Topic**	**Corrective Actions**	**Feedback (10)**		**Comments**
						Before	**After**	
4	CSE	4.7.18	Mrs.D.Kamal Kumari	Micro operations	Technical Knowledge is poor Prepare lecture notes well in advance Be serious in the class.	7.67 IV-I (CAO)	8.12	Good Repeat Demo
Academic Year 2017-18								
SNo	**Program**	**Date**	**Faculty**	**Topic**	**Corrective Actions**	**Feedback (10)**		**Comments**
						Before	**After**	
1	EEE	07.09.17	Mr.K.Vamsi	Hydro Thermal Scheduling	Registered Ph.D, Read different text books	6.65 IV-I	8.45	Very Good
2	EEE	07.09.17	Mr.B.Rajesh	Classification of Transmission lines	Registered for Ph.D. Attend teaching learning workshops	6.6 III-I	8.24	Good Repeat Orientation
3	ECE	05.07.17	Mr.K.V. Ramana Rao	VHDL Program Sructure	More preparation is required	7.38 III-I (DICA)	8.09	Good
4	ECE	05.07.17	Mr.K.Sridhar	Bridge Rectifier	Registered for Ph.D	7.99 II-I (EDC)	8.87	Very Good
5	ECE	05.07.17	Mr.B.Srinivasa Rao	Fouries series	Registered for Ph.D (Preferbly in IITS)	6.87 II-I (SS)	8.79	Very Good
6	IT	24.06.17	Mr.Ch.Ramasuri A Naidu	Variables	Advised to go a bit slow improve hand writing. Registered for Ph.D	7.1 IV-II (HCI)	8.94	Very Good
7	BS&H	22.08.17	Dr.R.S.S. Srikanth Vemuri	Galvanic cells	Read more books. Listen audio lectures. More practices is required	7.46 I-II (AC)	8.72	Very Good

9.3. Feedback on facilities (5)

Assessment is based on student feedback collection, analysis and corrective action taken.

9.3.1 Feedback Collection Process:

The class review committee/amenities committee in the department looks after the facilities. Student feedback is collected on facilities every semester through class review committee meetings. Feedback on facilities will be collected from the following:

a. Student Feedback Form
b. Parent Feedback Form
c. Suggestion box
d. JNTUK FFC recommendations on facilities

The minutes of the meeting are thoroughly analyzed at the department level and any corrective actions to be initiated are reported to the management and the facilities will be provided wherever possible. Institute centrally takes the feedback on facilities once in every semester through Exit feedbacks and Alumni feedbacks (batch wise with sampling numbers), Parents feedback (online and offline modes) and corrective measures are taken wherever necessary. The maintenance logbooks are provided in the department for continuous monitoring of amenities. A suggestion box is placed in the department to get the opinion on the functioning, maintenance of the facilities and documented for further actions. The details of the approval letters and the summary of meetings/discussions are presented in Annexures.

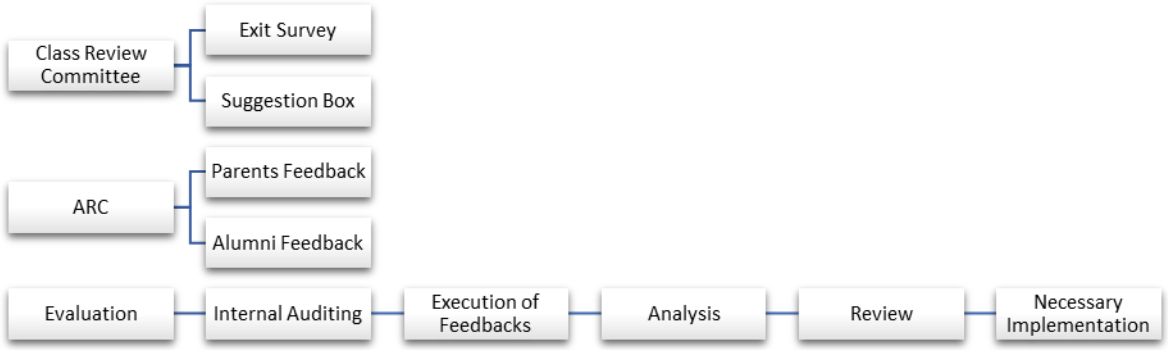


Figure B.9.3.1: Flow chart showing the collection and evaluation of feedback on facilities

9.3.2 Analysis of Feedback on Facilities:

Assessment is based on student feedback collection, analysis and corrective action taken.

Overall rating on the facilities available in the department/institution in parameter wise given in the below Table. The feedback collected will be cumulatively taken on a scale of 5.

Table B.9.3.1. Student feedback rating on parameters:

S.No	Parameters	Rating (5 Point scale)		
		2017-18	2018-19	2019-20
1	Classroom ambience	4	3.8	4.2
2	Lab & Computing facilities	3.7	4	4.2
3	Hygiene in canteen	3.5	4	4.4
4	Training & Placement cell	4	3.7	4.5
5	Library facility (E-resources & Digital library)	3.8	4	4.3
6	Transparency in examination & Evaluation	4.3	4.4	4.6
7	Functioning of grievance cell	4	4.2	4.4
8	Hostel & Transport facility	4.2	4	4.3
9	Sports facilities	3.9	4	4.2
10	Medical facilities	3.8	4.2	4.4
11	Means & Merit Scholarship provided by VIGNAN	4.4	4.5	4.8
12	Overall rating about facilities at VIEW college	4.2	4.1	4.4
Average		**3.98**	**4.08**	**4.39**

Table B.9.3.2: Parent feedback rating on parameters:

S No	Parameter	Rating (5 Point scale)		
1	Teaching & Learning Process	4.2	3.8	4.4
2	Counselling/Mentoring System	4	4.2	4.5
3	Campus Recruitment Training & Placements	4.3	4	4.5
4	Scholarship provided by VIGNAN	4.5	4.5	4.7
5	Student discipline	4.2	4.2	4.4
6	Overall Personality development of your ward	4.3	4.4	4.6
7	Laboratory facilities	4.2	4.2	4.4
8	Library facility	4.2	4.4	4.5
9	Sports facilities	3.9	4	4.2
10	Transport facility	3.8	4.2	4.4
11	Canteen & Hostel facility	4.4	4.5	4.8
12	Co curricular & Extra Curricular Activities	4.2	4.1	4.4
13	Grievance and redressal cell	4.5	4.5	4.5
14	Medical facilities	4	4.2	4.4
15	Overall rating of VIEW	4.2	4.3	4.4
Average		**4.19**	**4.23**	**4.47**

9.3.3. Corrective Actions Taken:

As per the key identifications from the parameters in above tables, a recommendations list will be prepared and will be presented in the governing body meetings. As per the guidelines given from the minutes, correction actions will be taken and for last three year academic years were listed below in table B.9.3.3.

Table B.9.3.3: List of corrective actions taken against recommendations

S.No	Recommendations	Corrective Actions Taken		
		2017-18	2018-19	2019-20
1	Hostel Facilties	Yes	Upgraded	Upgraded
2	Library Facilities	Yes	Upgraded	Upgraded
3	Medical Facilities	Yes	Upgraded	Upgraded
4	Transport Facilites	Yes	Upgraded	Upgraded
5	Fire & Safety	Floor wise	All exposed areas	Upgraded
6	Canteen Facilities like Xerox, stationary, etc arranged in a spacious canteen	Institute Level	Upgraded	Upgraded
7	LCD projectors and computer systems are fixed in every classroom	Limited to program wise	Limited to section wise	Yes
8	Focusing lights are arranged at the top of the board to clear visibility to the students.	Limited	Yes	Yes
9	Quality equipment and computing facilities increased in the department.	Yes	Upgraded	Upgraded
10	Active functioning of the grievance cell to look after the issues of students.	Yes	Yes	Yes
11	Increased the kits for the in-door and out-door games/sports.	Yes	Upgraded	Upgraded
12	Management providing Means & Merit scholarships to encourage the students	Limited	Yes	Yes
13	Wifi & Internet Facilities	Yes	Upgraded	Upgraded

Figure B.9.3.2: Some Facilities upgraded in the last three academic years with illustrations

Student and parent Feedback forms on facilities are as follows:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
(Approved by AICTE & Affiliated to JNT University, Kakinada) Estd. 2008
ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Institution
Kapujaggarajupeta, VSEZ (Post), Visakhapatnam-530 049, Andhra Pradesh, India
Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

STUDENT'S FEEDBACK ON FACILITIES

Name : **Branch:**

Regd. No: **Admitted Year:**

Please rate the Institute as per the criteria given below. Mark a tick '√' in the appropriate cell:

(Note: Excellent-5; Very Good-4; Good-3; Satisfactory-2; Poor-1)

S.No	Question	Rating				
1	Classroom ambiance	5○	4○	3○	2○	1○
2	Lab & Computing facilities	5○	4○	3○	2○	1○
3	Hygiene in canteen	5○	4○	3○	2○	1○
4	Training & Placement cell	5○	4○	3○	2○	1○
5	Library facility (E-resources & Digital library)	5○	4○	3○	2○	1○
6	Transparency in examination & Evaluation	5○	4○	3○	2○	1○
7	Functioning of grievance cell	5○	4○	3○	2○	1○
8	Hostel & Transport facility	5○	4○	3○	2○	1○
9	Sports facilities	5○	4○	3○	2○	1○
10	Medical facilities	5○	4○	3○	2○	1○
11	Means & Merit Scholarship provided by VIGNAN	5○	4○	3○	2○	1○
12	Overall rating about facilities at VIEW college	5○	4○	3○	2○	1○

Additional Comments: .....

Approved.

PRINCIPAL
Vignan's Institute of
Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-49.

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN
(Approved by AICTE & Affiliated to JNT University, Kakinada) Estd. 2008
ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Institution
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Phone : 9133300357, 8886066339 :: Fax : 0891-2010485
Email : viewvizag@yahoo.com, viewprincipal@gmail.com website : www.vignanview.org

PARENTS' SURVEY FORM ON FACILITIES

Name of the Parent: **Name of the student:**

Program: **Regd. No. of the student:**

Please rate the Institute as per the criteria given below. Mark a tick '√' in the appropriate cell:

(Note: Excellent-5; Very Good-4; Good-3; Satisfactory-2; Poor-1)

S.No	Question	Rating				
1	Teaching & Learning Process	5○	4○	3○	2○	1○
2	Counseling/Mentoring System	5○	4○	3○	2○	1○
3	Campus Recruitment Training & Placements	5○	4○	3○	2○	1○
4	Scholarship provided by VIGNAN	5○	4○	3○	2○	1○
5	Student discipline	5○	4○	3○	2○	1○
6	Overall Personality development of your ward	5○	4○	3○	2○	1○
7	Laboratory facilities	5○	4○	3○	2○	1○
8	Library facility	5○	4○	3○	2○	1○
9	Sports facilities	5○	4○	3○	2○	1○
10	Transport facility	5○	4○	3○	2○	1○
11	Canteen & Hostel facility	5○	4○	3○	2○	1○
12	Co curricular & Extra Curricular Activities	5○	4○	3○	2○	1○
13	Grievance and redressal cell	5○	4○	3○	2○	1○
14	Medical facilities	5○	4○	3○	2○	1○
15	Overall rating of VIEW	5○	4○	3○	2○	1○

Please give your valuable suggestions for improvement of the college.

.....

.....

Date: **Signature:**

Approved

PRINCIPAL
Vignan's Institute of
Engineering for Women
K.J.Peta, VSEZ (P.O.),

9.4: Self-Learning

(The institution needs to specify the facilities, materials and scope for self-learning / learning beyond syllabus, Webinars, Podcast, MOOCs, etc. and evaluate their effectiveness)

9.4.1. Scope For Self-Learning

Self-Learning at Vignan's Institute of Engineering For Women was one of the unique ecosystems with diversified learning for women students. The detalils of the self-learning for the student's of our instition were clearly explained and illustration in the figure B.9.4.1 for the last three academic years.

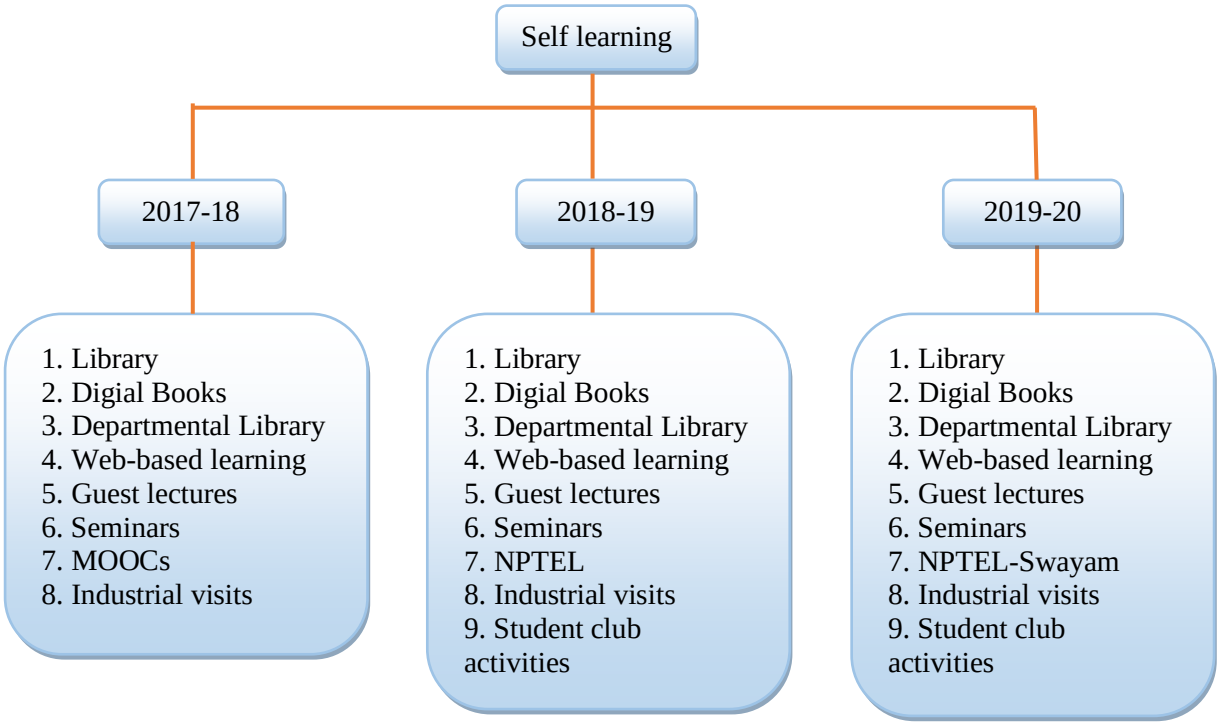


Figure B.9.4.1. Illustration chart for the scope of self learning

Self-Learning method is an individualized method of learning collecting information, processing it, and retaining it without the need for another individual to teach it.

Table B.9.4.1: Details of Self Learning Processes

Sl. No.	Self – Learning process	Description
1	Library	Several books provided in each department.
2	Digital Library	• Availability of NPTEL videos. • Sufficient systems with multimedia facilities. • Institutional membership,Internet facility like swayam, etc.

3	Departmental Library	Availability of course material, departmental library books,PPTs.
4	Web-based learning	Video lectures through internet
5	Professional bodies / other association and club activities	professional association memberships,departmental associations
6.	Seminars & workshops	Seminars given by the students
7	Assignments	Assignment books and weightage of marks for assignments/Quizzes/seminars
8	Industrial visits	Students Industrial visits are
9	Guest lectures	List of Guest lectures organized
10	MOOCs	MOOCs data

9.4.B. Detailed list of Self – Learning facilities:

Various self learning facilities available at VIEW were listed below in detail:

a) Central Library

The Vignan Vahini Library has a huge collection of 27784 books with 5676 titles on various subjects including technical, humanities, managerial and reference Books covering biographies, dictionaries, yearbooks etc. The library subscribes 108 national and international print journals and 5230 e-journals, and holds over 1018 project reports. The Learning materials, Previous Question Papers, Project Reports of all departments are made available.

- The Library is open for all users from 7.30 am to 5.30 pm. The library hours are extended on the basis of need during examinations.
- Regular class time tables of all branches allot one session contains one hour in a week for library study. Each student have a library card using which that she can lend 5 books for 15 days nearly 30 members utilizes same title of book per year.
- The use of library by students is generally more during examination period.
- During examination period students spends more time in library.
- Digital Library is also available to the students with free internet Access

Table B.9.4.2: Detailed list of vignana vahini library

S No.	Course	Dept.	No. of Titles	No of Volumes	Effective Utilization		
					2017-18	2018-19	2019-20
1	UG	EEE	767	3681	**80682**	**86176**	**78241 (Covid Impact)**
2		ECE	829	4088			
3		CSE	853	4144			
4		IT	813	3312			
5		MECH	676	2915			
11	PG	MBA	731	5027			

12		ECE	92	226			
13		EEE	59	138			
14		CSE	74	180			
15		ME	36	98			
16	BS&H	Total Books	318	2762			
17	General	Books	428	1213			
18	Others	National Journals	34	34	**Effectively utilized 100% of the sources for developing projects or materials.**		
19		International Journal	5	5			
20		International Journal	12	12			
21		Magazines	17	17			
22		News Papers	35	35	**100%**		
23		Faculty Publications	184	184	**100%**		
Total			**5963**	**28692**	**Improvement of ulilization was observed over a period of last three academic years.**		

Figure B.9.4.2 Vignana vahini library

b) Digital Library

- The institution provides facilities like a digital library which has a seating capacity of 175 students at a time, who can access E-journals of J-Gate Science and Technology, NOBLE INFOTECH has 188 E-Journals & E-Books, DELNET has 400 E-journals in Engineering & Technology of E-Journals & E-Books, IEEE E-journals provides 17 magazines and 35 newspapers students can utilize these sources during the leisure hours.
- The Digital Library has 15 computers and several E-Resource of e-journals, e-books, video lectures (like NPTEL), audio lectures of various publisher are made available in the Digital Library for effective teaching learning process.

Table B.9.4.2: Digital Library

Availability of Digital Library Contents: Yes Following digital contents are made available		
Content	**Accessibility**	
NPTEL Video Lecture	Access Provided to NPTEL Video Lecture Content	YES, through local Server
National Digital Library of India (NDL) IIT Kharagpur	Membership to NDL Digital Library of India	YES
Availability over Intranet /Internet	YES	
No. of users per day:	25 - 35 Per Day	

c) Departmental Library

- The departmental library comprises books of all engineering subjects of various publications, GATE books, and competitive examination books that are accessible to all students.

d) Professional bodies / other association and club activities

- All departments are associated with professional memberships such as the Institution of Engineers and departmental associations.

e) **Seminars & workshops**

- Every department has organized seminars, workshops, technical events such as Tech Fest to enhance communication skills in students.
- Students give excellent seminars infront of all the students once in a week about their own interesting topics to enhance their presenting and communication skills. These seminar classes help the students for their campus interviews to place them in better position.

f) Assignments

- All departments maintain assignment books for each and every subject for all students in order to give weightage for evaluating marks.
- Online assignments have been given through REFERENCE GLOBE, watsapp, google meet to all students to improvise subjective knowledge during the COVID-19 lockdown period.

g) Industrial visits

- Departmental industrial visits have been organized such as ISRO, OBELL BELLOWS, etc. to understand the practical implementation of the subject.

Figure 9.4.3. Illustration sample for Industrial Visits (Source: ECE ISRO visit)

h) Web-Based Learning and Certification Courses

- Students of all departments were given the opportunity to participate in online classes such as MOOCs, NPTEL, and Webinars, etc.
- Department level faculty's are encouraged to the students to the web based certification courses like NPTEL, UDEMY, Google digital garage, UDACITY and CISCO.
- Students those who got extramural ranking in the course they are awarded with price money as a token of appreciation based on the R&D policy.

Table B.9.4.3: Effective Utilization of Web-Based Learning and Certification Cources

Period	SNo	Department	Cert. Cource	No of students
2019-20	1	ECE	NPTEL-Swayam	334
	2	IT	NPTEL-Swayam	16
	3	EEE	NPTEL-Swayam	02
	4	CSE	NPTEL-Swayam	99
	5		Sololearn	11
	6		Vision	2
	7		Alison	3
	8		Udacity	3
	9		Wheebox	13
2018-19	1	IT	NPTEL	02
	2	CSE	NPTEL	24
	3		CISCO	76
	4		Texas measurements	23
	5		Wheebox	11
	6		Solo learn	7
	7		Udemy	7
	8		Data Camp	2
	9		Net CAD	2
	10		Udacity	3
	11		Coursera	2

Figure B.9.4.4: Sample Certication Courses as effective utilization

- MOOCs online program will be conducted by the University of JNTUK to gain the knowledge to the students. These MOOCs classes helps the students to select their written examination during the campus time nearly 141 students get placed by the utilization of these lectures.

Table B.9.4.4: List of MOOC's Web-Based program

Year	S No	Name of The Cordinator	Branch	Year &Sem	Date	Name of The Subject	Name of The Expert
2018-19	1	Mrs.B.M.Pushpa Latha Mr.K.Kushal Kumar	EEE	IV-I	27-06-2018	Energy Audit and Management	Dr.P.SureshBabu
	2	S.Kalyani I.Raju	CSE /IT	II-I	27-06-2018	Statistics Using R Programming	Tcs Consultants
	3	A.V. Pradeep	MECH	III-I	27-06-2018	Metal Cutting Machine Tools	Prof. G. L. Samuel, IIT Madras
	4	G.Lakshman T.SandyaKumari	ECE	II-I	27-06-2018	Signals And Systems	Dr. K .V.Srinivas, IIT BHU
2017-18	5	P.Praveen Kumar Ch.RamaSuriAppala Naidu	CSE /IT	II-II	20-11-2017	Java Programming	TCS Consultants, Hyderabad
	6	A.V. Pradeep	MECH	II-II	20-11-2017	Design Of Machine Members-1	Ch. Viswanath, IIT Hyderabad
	7	G.Lakshman T.SandyaKumari	ECE	II-II	20-11-2017	Analog Communications	K.V.Srinivas , IIT Varanasi
	8	G.Lakshman T.SandyaKumari	ECE	III-II	20-11-2017	Microwave Engineering	J.SriHariRao, NITW(Rtd)

	9	Mrs.B.M.Pushpa Latha Mr.K.Kushal Kumar	EEE	II-II	20-11-2017	Electrical Machines - II	PradeepkumarYemula, IIT Hyderabad
	10	P.Praveen Kumar Ch.RamaSuriAppala Naidu	CSE /IT	II-II	18-11-2017	Java Programming	TCS Consultants, Hyderabad
	11	Mrs.B.M.Pushpa Latha Mr.K.Kushal Kumar	EEE	II-II	18-11-2017	Electrical Machines - II	PradeepkumarYemula, IIT Hyderabad
	12	G.Lakshman T.SandyaKumari	ECE	II-II	18-11-2017	Analog Communications	K. V. Srinivas, IIT Varanasi
	13	A.V. Pradeep	ME CH	II-II	18-11-2017	Design Of Machine Members-1	Ch. Viswanath, IIT Hyderabad
	14	G.Lakshman T.SandyaKumari	ECE	III-II	18-11-2017	Microwave Engineering	J. Sri HariRao, NITW(Rtd)
	15	I. Raju P.Praveen Kumar	CSE	IV-I	20-06-2017	Hadoop& Big Data	KiranKopparapu, Chicago State University
	16	Mrs.B.M.Pushpa Latha Mr.K.Kushal Kumar	EEE	II-I	20-06-2017	Electrical Machines-I	PradeepYamula, IIT Hyderabad
	17	S.Kalyani I.Raju	CSE /IT	II-I	20-06-2017	Python Programming	Rajkumar Mulge, TCS Consultant
	18	A.V. Pradeep	ME CH	IV-I	20-06-2017	Finite Elements Method	Viswanath Ch, IIT Hyderabad
	19	P.Praveen Kumar Ch.RamaSuriAppala Naidu	CSE /IT	II-I	17-07-2017	Python Programming	TCS Consultants
	20	Mrs.B.M.Pushpa Latha Mr.K.Kushal Kumar	EEE	II-I	17-07-2017	Electrical Machines-I	PradeepYamula, IIT Hyderabad
	21	P.Praveen Kumar Ch.RamaSuriAppala Naidu	CSE /IT	IV-I	17-07-2017	Hadoop & Big Data	Kiran Kopparapu, Chicago State University

Material for Learning Beyond syllabus

i. Coaching's for competitive exams

- Institution provides coaching for GATE, aptitude, reasoning and workable training were given as per the prescribed timetable which makes the students attain effectively for their carrier growth.
- Mock interviews, aptitude test and group discussions are conducted periodically to evaluate performance of the students.

- Worksheets have been design on each topic and circulated to the student's to improve their practice exercise.

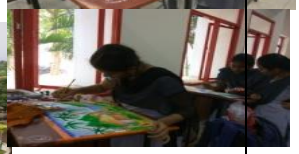
ii. Associations

- Every year Institution level fests are organised in the campus where so any events are conducted like PPTs, poser presentations, rangolis, project expos events are conducted to evaluate their presentation and communication skills.
- In order to provide more exposure to the students towards recent trends emerging technologies and to facilitate better interaction all the departments formed an associations in every year. The main aim of associations is to make sure the students become highly competitive and to acknowledge the inherent talents of the students in both technical and cultural fields.

iii. Student clubs

- Institution establishes so many student clubs in every year under those clubs many activities were performed in order to exhibit their skills like singing, dancing, mehandi etc. Every year blood donation camp was organised under health club.

2019-20			
Club	**TECHKRITHI CLUB-2K19**		
Event name	Google It	Idea Presentation	Debugging
Student Committee	A. Gantayath, V. Harshini Chowdary	M. Samyuktha, S. Kavitha	M. Venkata Satya Bhavani, V. Keerthi
Demonstration			 
Outcome	Students who activily participated in this club have achieved successful placements through knowledge gained in coding skills.		
Club	**SAMSKRITHI CLUB-2K19**		
Event name	Braid a Card	Artsy Lens	Painting
Student Committee	B. Siva Sai Naga Lalitha, Y. Haritha	B.Niharika, P Tanmay	Sravya S, Y. Haritha

Demonstration	   	
Outcome	Students acquired unique skills of different fine arts through this skills which helped them stand unique and enhanced their resumes for the campus interviews.	
Club name	**Academic clubs**	
Event name	**Electronics club**	**Coding club**
Student Committee	Ch.Parimala, M.Sushmitha, Roopa Sri	B. Chandana Anooha Manogna
Demonstration	  	
Outcome	Students unique coding skills with competitive spirit which helped them clearing technical interviews and screening tests.	
Club name	**Activity clubs**	
Event name	**Personality development club**	**Cultural club**
Student Committee	K.L.Ahari, Vandana Pratyusha	K.Ushasri M.Jahnavi, P.Meenakshi Deepika
Demonstration		

		
Outcome	Students participated and headed these clubs were very effective in their personality management. Students with health and psychological issues were recommended to these clubs and found change in their personal upon active participations.	
Club name	**Eco-club**	
Event name	**Plantation**	**Go Green**
Student Committee	A. Alekhya, K.Pavani	G. Uma, T. Sreeja
Demonstration		
Outcome	Students participated were grown very familiar with the responsibility towards environment and it's sustainability which helped them stand unique in personal interviews.	
Club name	**Shristi club**	
Event name	Children welfare	Model expo	Mean stack
Student Committee	B. Vardhini, A. Vishnu Priya	K. Geethika, P. Sahithi	P. Venkata Tanusha, R. Niharika Kumari
Demonstration			
Outcome	Students who actively participated in this club gained product developed knowledge which helped them to develop unique projects.	

Club name	**Rythms club**	
Event name	Queen of IT	Dance
Student Committee	P. Sirisha, T. Sreeja	A. Alekhya, G. Keerthi
Demonstration		
Outcome	Students actively participated in this club have gained self confidence and helped them to improve special skill towards fine arts.	

Club name	**Health club**		
Event name	Blood donation	Eco rally	Eco ganesha with medicinal seeds
Student Committee	BEESETTY JOSHNA	ANANTAPALLI SAI VAISHNAVI	SIMHADRI LAHARIKA
Demonstration			
Outcome	Students actively participated in this club have gained a unique skill which impacted many other students to aware of health hazards and safety measures.		

Club name	**Sports club**
Event name	Kho-Kho
Student Committee	G Anusha,K.Poorna,S.Tulasi
Demonstration	

	
Outcome	Students who actively participated in this club enriched their sports skills which helped them stay fit and improved their stamina.

Club name	**Techritz**		
Event name	Technical quiz	AI workshop	Model expo
Student Committee	Y. Punyavathi Sridevi Priyadarshini K	V. Sai Sowjanya D. Vandana Sri	R. Sowmya B. Bhanu Priyanka
Demonstration			
Outcome	Students who actively participated in this club have gained special skills in product development and won many prizes in different national level competitions.		

2018-19			
Club name	**TECHKRITHI CLUB-2K18**		
Event name	Science Quiz	Story Writing	Words In Words
Student Committee	B. Harshavarshini, G. Hima Bindu	A. S S Subramanyaeswari, K. Ravali	B. Kusumanjali, Y. Renuka
Demonstration			
Outcome	Students who activily participated in this club have achieved successful placements through knowledge gained in coding skills.		
Club name	**SAMSKRITHI CLUB-2K18**		
Event name	Flash Mob	Essay writing	Movie Promotion

Student Committee	S. Malhotra, P. Veena Madhuri	D. Amrita Varma, D. Uma Maheswari	A. Dhineesha, N. Venkata Sravani
Demonstration			
Outcome	Students acquired unique skills of different fine arts through this skills which helped them stand unique and enhanced their resumes for the campus interviews.		
Club name	**NAVITAS club**		
Event name	Engineering Exploration	Ppt presenttion	Poster presentation
Student Committee	DOKALA ANUSHA	PENTAKOTA CHANDANA SRAVANI	KALLEPALLI SAI MOUNICA
Demonstration			
Outcome	Students who actively participated in this club were able to gain demonstration skills which helped them to clear Technical & Personal rounds in the campus interviews.		

Effectiveness of Self-Learning at VIEW:

Self-Learning at VIEW has a huge response for its efficacy showing tremendous in developing products as illustrated below. These are the few highlights of outcomes of the self-learning at VIEW at national level published in various news papers.

5 city girls make gadget that will keep your stove burning

Kamalakara.Rao
@timesgroup.com

Visakhapatnam: Five girls from the city have invented a device that will alert consumers when their LPG (liquefied petroleum gas) cylinders are close to being empty and even when there are leakages. The girls have come up with a device that will have to be attached to the LPG cylinder.

The five girls are in their third-year of engineering in the electronics and communications stream at Vignan's Institute of Engineering for Women.

The girls who have come up with this transformative innovation are Ch Parimala, B Lalitha, K Niharika, K Lahari and B Geetha Bhavani. They were guided by associate professor Ch Ramesh Babu.

Speaking to **TOI**, Parimala said that they came up with the idea over routine chats at the college canteen. "Our intention was to create something that will help society," she said.

Discussing the invention, the girls said that when the device is attached to the cylinder, the device will send a message to both the user and the dealer informing them if and when the cylinder is nearly empty. The information will also be displayed on the LCD. Moreover, the device will also alert when there is a leakage.

"We hope that our project will help reduce fire mishaps due to gas leaks. Moreover, the system provides a fully automated approach for booking cylinders," Parimala informed.

Lalitha, another member of the group said that even though technology and devices exist to detect and alert leakages many people in rural areas are not aware of them. "We have introduced this prototype to help overcome such problems in rural areas," Lalitha said.

On being contacted, Anurag Shrivastava, general manager (LPG wing) of Hindustan Petroleum Corporation Limited (HPCL) said that the students can directly approach the HPCL's headquarters in Mumbai if they have come up with something novel. HPCL's team will review the project and if they find something novel in it they will do justice to the idea, Shrivastava informed.

DEVICE THAT CAN SAVE LIVES

- The device alerts the user and the dealer if the cylinder is close to being empty a few days in advance
- The device will also alert the user if there is a gas leak
- Madhya Pradesh registers the highest number of LPG leakage cases
- Nearly one-sixth of deaths due to accidental fires are caused due to gas leakage
- There are **30 crore** LPG connections in India at the moment

(According to inputs given by students)

A cheap robotic hand of foam to make life simpler

Kamalakara.Rao
@timesgroup.com

Visakhapatnam: Three city students have designed a robotic 'hand' that can solve a lot of problems for the disabled. The device, which the students call an 'Ani-ic hand', can also be use effectively by fire personnel or even people from pharma industry. The robotic hand can act as a duplicate hand for the user and imitates all movements of a hand in flesh and blood. The more interesting part is, one needs to 'wear' the hand.

Take the example of a bomb disfusion situation. To make things a lot safer, a cop can stay at a distance and the animatronic hand would do the job for him, imitating the movements of his hand, through a remote control. What's more, this robotic hand is really cost-effective and comes at a price lower than ₹10,000.

The hand has been built using foam sheet and fishing thread. The fishing threads are attached to five servo motors which control the movement of the hand.

The three students, K Sumanjali, P Bhavya Kumari and B Sravani, are final year students of Information Technology at the Vignan Institute of Women Empowerment (View), Visakhapatnam.

Speaking to **TOI**, Bhavya said that they thought of creating the device with an intention to help the poor and the diabled. The market has such animatronic hands, she said, but these devices cost around ₹35,000 to ₹40,000.

"We have changed the conevntional designs of a robotic hand to create this. We took the device to some expos where it received good response," Bhavya added.

Sumanjali told **TOI** that the hand can help people working in the chemical industry avoid skin diseases. "Many who work in pharma and chemical industries often face accidents and may even lose their arms since they work with strong acids. One can also use this hand for bomb difusion," Sumanjali added.

HANDS-FREE COMFORT

K Sumanjali, P Bhavya Kumari and B Sravani display the animatronic hand at an expo

Material used | Foam, fishing string

Cost ₹10,000

- Gloved hand can control the robotic hand from a distance
- The robotic hand imitates the movements of the gloved hand
- Robotic hands in the market cost ₹35,000 to ₹40,000 at least

CAN BE USED BY

- Disabled persons
- Security personnel for safer diffusion of bombs
- Firemen
- Pharma professional
- Relief workers

Student Committee

B. Naga Lalitha, Y. Haritha
B.Niharika,P Tanmay
Sravya S,Y. Haritha

OUTCOME

Students acquired unique skills of different fine arts through this skills which helped them stand unique and enhanced their resumes for the campus interviews.

9.5 CAREER GUIDANCE, TRAINING & PLACEMENTs (10)

(The institution may specify the facility, its management and its effectiveness for career guidance including counseling for higher studies, campus placement support, industry interaction for training/internship/placement, etc.)

9.5.1. Career Guidance Facilities:

Vignan's Institute of Engineering For Women has an effective career guidance system with an effective committee and resources which helps students to decide correct and aspired career path. Career Guidance Cell (CGC) operates with the above stated committee in accordance with students at institute level and individual level.

- Institute Level: Programs which helps students to decide and work towards their desire career will be organized.
- Individual Level: Any individual students or the students recommended for career counselling will be directed to CGC and an expert counselling will be provided in choosing their desired career path and working towards it. Special cases directed by Principal, TPO and Program Coordinators will be guided accordingly by CGC whenever it is necessary.

Table B.9.5.1: Career Guidance Cell Committee

S.No	Name of the Faculty	Position	Role
1	Dr.J.Sudhakar	Principal	Chairman
2	Dr.M.Nagendrababu	Training and Placement Officer(TPO)	Member
3	Dr. K.V.Ramana Rao	Assistant TPO	Member
4	Dr.Akansha Mishra	Associate Professor	Member
5	Dr. Vijaya Bharathi	Associate Professor	Member
6	Mr.G.Netaji	Assistant Professor	Member

The college regularly conducts Personality Development Programs to improve the communication skills of the students from rural background which re assures students of their skills and abilities to succeed. Guest speakers from various industries are invited to provide a broad exploration of various career options and industry knowledge to the students.

Various Career guidance programmes will be organized by the CGC at institute level which helps students to choose, work and achieve their desired career goals. These programs were categorized and will be commenced with the approval of principal and all the program coordinators. Such events were listed below in table B.9.5.2.

Table B.9.5.2. Career Guidance Programs conducted

S.No	Date	Name of the Speaker	Students	Topic	Illustration
1	28-01-2019 29-01-2019	Mr.Suresh Kumar Tankala	316	Skills First… Jobs Follows	
2	19-03-2019	Lynn Penny	155	Seminar on International career guidance	
3	03-07-2017	Mr.Lakshmipuram Venugopal	150	Motivational Seminar – Acquire Knowledge, Save a life	

9.5.2. Counselling For Higher Studies

Career Guidance Cell is also responsible for counselling the students for higher studies in the diversified fields of engineering or others in line with the interest and performance of the students. Various higher education awareness programs were conducted to give the detailed

structure and instructions set for the students to enhance their knowledge to clear GATE/GRE, GMAT etc.

Table 9.5.3. List of Programs to counsel the students towards higher studies

SNo	Date	Topic	Resource Person
1	17.07.17	Awareness Program on higher education given by Global Tree	Mr.Beesetty G V S Prakash, Business Development Manager
2	22.12.17	Oppurtunities in Abroad by Higher Studies	Mr. Ch.Venkata Ramaiah, Marketing Manager
3	24.01.18	Preparation for GATE, ESE & PSU by Engineers Hub	Prof.A.W.Iqbal Dean Academics
4	16.06.18	Importance of GRE,GMAT,TOEFL by Conduira	Mr.P.V.Rama Sasank, Director
5	13.12.18	Create awareness on overseas Education system	Mr.M.Babuji, Marketing
6	28.01.19	Oppurtunities in US by GLOBAL REACH	Mr.Sasi Kiran Nammi, Marketing Development Executive
7	27.12.19	Higher Education Awareness Program by PVK Educational Consultants	Ms.P.Pushpa Latha, Director
8	04.02.20	An insight into the preparation for GATE by GATE ACADEMY	D.Vijay Sastry, Consulting Partner

Apart of these programs, students those who desires counselling for higher studies will be direct to CGC for further guidance. CGC was choosen to have all the senior level faculty with the department expertise who are well aware of all the possibilities and can counsel the students. Wherever necessary the CGC recommends such students who are keen about their higher studies will be allotted with a mentor specialised in the respective fields.

Table B.9.5.4: Effectiveness & Impact Analysis of CGC:

CAREER GUIDANCE CELL
EFFECTIVENESS

VIGNAN'S
INSTITUTE OF ENGINEERING FOR WOMEN

Baliboyna Niharika (16NM1A0512)

PROBLEM :
Lack of self motivation with her financial considerations father being a bike mechanic.

RECOMMENDATIONS :
With the support of CGC through placement support she was recommended for an internship with amazon with product development training.

EFFICACY:
Got placed for amazon

Package
19
LPA

2019-2020

CAREER GUIDANCE CELL
EFFECTIVENESS

VIGNAN'S
INSTITUTE OF ENGINEERING FOR WOMEN

Kotipali Madhavi (15NM1A0559)

PROBLEM :
Her education gap in academics, she was rejected by 16 companies.

RECOMMENDATIONS :
With the support of CGC she has undergone internship training with a stipend of Rs 5000/- which help her to get placed in one of the top MNC's Company

EFFICACY:
Got placed for amazon

Package
18
LPA

2018-2019

S.No	Name of the Student	Problem	Strategy to rectify problem of the Student	Efficacy/Outcome
1	**Pyla Mounika (A.Y. - 2017)** 	Since she came from telugu background, she was not confident enough to face the campus drives. Due to lack of communication skills she was rejected in 16 companies.	She was continuously given moral support by the TPO and was given training for a period of one month to improve her communication skills	Got placed in JUSPAY company with a package of 12 lakhs per annum

2	**Kotipalli Madhavi** **(A.Y. - 2018)** 	As she was a mother of 2 kids she got break in her academics. Due to the breakage in her academic career she got rejected by 24 companies in final HR round.	With the guidance of TPO she has undergone internship training with a stay fund of Rs 5000/- which helped her to get selected in campus recruitment drive.	Got placed in AMAZON Company with a package of 18 lakhs per annum.
3	**Baliboyna Niharika** **(A.Y 2019)** 	• She came from a family which is financially weak. • At initial stages during campus recruitment she was unable to clear campus drives due to lack of confidence.	With continuous support given from CGC & TPO she was able to gain her confidence back and backed her practical skills which helped her to get placed in one of the top MNC's in the country.	Got placed with a package of 19 lakhs per annum in AMAZON.

9.5.3. Pre-Placement Training

Pre-placement training at VIEW was developed to enhance the student's skills such as communical skills, soft skills, personality development skills and technical skills through outcome based education. Skill sets focused to be developed by Pre-placement training will be cumulated by the below Training & Placement Cell Committee from the employer feedbacks.

Table 9.5.5. Training & Placement Cell Committee

S. NO.	NAME	DESIGNATION	POSITION
1	Dr. J. Sudhakar	Professor	Principal
2	Dr.M.Nagendrababu	Associate Professor	Training and Placement officer
3	Dr.K.V.Ramana Rao	Associate Professor	Assistant Placement Officer
4	Dr.P.Sudhakar	Associate Professor	Assistant Training Officer

5	Mr.M.Krishna Kishore	Assistant Professor	General Aptitude Trainer
6	Mr.Ravi Kumar Sahu	Assistant Professor	Technical Trainer
7	Mr. P.V.Sarath	Assistant Professor	Placements coordinator – EEE
8	Mr. G.Ravi Kumar	Assistant Professor	Training coordinator - EEE
9	Mr.L.V.Suryam	Assistant Professor	T & P coordinator – ME
10	Mr.G.Lakshman	Assistant Professor	Placements coordinator – ECE
11	Mr.E.Tataji	Assistant Professor	Training coordinator - ECE
12	Mr.R.Ravi	Assistant Professor	T & P coordinator – CSE
13	Mr.Ch.Rama Suri	Assistant Professor	T & P coordinator – IT
14	Mrs.T.Suguna	Assistant Professor	T & P coordinator - MBA
15	Mr.P.J.E.Kiran	Junior Assistants	T & P Assistants
16	Mr.O.Chinna Rao	Junior Assistants	T & P Assistants

The recommendations or the suggestions given by the employers and program coordinator will be taken in to the consideration while designing the Pre-Placement Training Calendar. The Pre-Placement Training from Training and Placement will be circulated among all the program for circulations.

Steps in designing Pre-Placement Training:

1. Acquiring feedback of employers and program coordinators.
2. Cumulative recommendations will be developed for the Principal Approval.
3. Preparation and circulation of Pre-Placement Training Calendar.
4. Instructing the students to finish pre-requisites through web-based learning.
5. Ensuring the conduct of Training programs as per the calendar.
6. Conduct of company specific trainings wherever a specific skill was required from the students through Job descriptions (JD).
7. Ensuring the students to be ready for placements before the campus interviews scheduling.

Implementation of Pre-Placement Training:

Post designing the Pre-Placement Training Calendar, a defined procedure will be implemented for executing the Pre-Placement Training:

1. From II B.Tech onwards two non credit courses were implemented such as:
    a. Aptitude Training – Referenceglobe LMS (Life Time Access)

b. Technical Training (Core & Programming Skills) – Referenceglobe & Hackerrank

2. Before IV B.Tech, undertaking forms will be issued to all the students for their consent towards training.
3. Students reporting those who are not willing will be forwarded to CGC through TPO.
4. Students who accepted the undertaking, training will be processed through the following modules;
    a. Campus Recruitment Training (Eligibility: above 60% aggregate in academics / special cases recommended by program coordinator through principal if any)
        i. Product Development Training.
        ii. Application Oriented Training.
    b. Company Specific Training (as per the eligibility & JD)
    c. Profesional Internships (Through Campus hiring / Internshala)
    d. Specialised Training (If any concerns from Principal/CGC/Program Coordinator)
5. Both the stated trainings will be carried out by the following following organizations as stated where ever they were recommended by Principal and TPO.

Table B.9.5.6: List of MoUs made for Pre-Placement Training Programs

S.No.	MOU with companies	Description	Date of MoU
1.	Techno Soft solutions(TSS), Visakhapatnam	Imparting training courses	09.01.2012
2.	Randstad India Limited, Chennai	Providing Job placements	05.04.2013
3.	COIGNEDU & IT Services(P) Ltd., Hyderabad	Imparting Training courses	03.07.2014
4.	Focus Academy for Career Enhancement(FACE), Coimbatore	IBM Specific aptitude cracker programme	02.12.2014
5.	Focus Academy for Career Enchancement(FACE), Coimbatore	Campus placement Cracker programe	14.02.2015
6.	Focus Academy for Career Enchancement(FACE),	Company Specific aptitude cracker programme	06.08.2015
7.	M/s.GRAFX IT Solutions Pvt. Ltd.,	Skill Development Programe	27.08.2015
8.	Talentio solutions India Pvt. Ltd.,Hyderabad.	Skill Enhancement Programme	17.02.2016
9.	Focus Academy for Career Enchancement(FACE), Coimbatore	Imparts Aptitude and Reasoning	03.05.2016
10.	Confederation of Indian Industry(**CII)**, Visakhapatnam	Influence inspire and motivation of Students	25-07-2017

11.	APSSDC, Vijayawada	To make qualitative improvements in imparting Technical Skills.	25-07-2017
12.	DATAPRO COMPUTERS PVT. LIMITED	Provides software courses training	16-07-2019
13.	NSE(NSEIT Limited), Mumbai	Online Examination Service Provide Centre	28-08-2019

Table B.9.5.7: Effectiveness & Impact of Training through Professional Internships:

S.No.	Hired on	Students Name	Company name	Stipend
1	28-11-2017	Aripaka Vijaya Lavanya Likita	Renaissance VIT Chennai	Performance Based
2	04-12-2017	Avuthu Pratyusha Reddy	Indiabulls	₹2000 /Month
3	24-11-2017	Kavita	AP Janmabhoomi	Performance Based
4	28-01-2018	Uma Divvela	Easy Nirman	₹3000 /Month
5	28-12-2017	Uma Divvela	Kalakar	₹2000 /Month
6	20-12-2017	SWETHA Pitta	Wooplr Technologies Private Limited	Performance Based
7	18-12-2017	Uma Divvela	Unmaad IIM Bangalore	Performance Based
8	11-12-2017	LAKSHMI Lavanya	SimSam	₹5000-10000 /Month
9	25-11-2017	Kiranmai Challa	AP Janmabhoomi	Performance Based
10	25-11-2017	SANAPATHI LAVANYA	AP Janmabhoomi	Performance Based
11	25-11-2017	Madhushalini Mantha	AP Janmabhoomiive)	Performance Based
12	30-09-2017	Bhavana Ayyankala	Creation Cradle	Performance Based
13	08-09-2017	Lohitha Chatti	LearnIn	₹5000-10000 /Month
14	27-10-2019	Asi Kavya Reddy	INDIA Redefined	Performance Based
15	06-03-2019	Mounika Pentakota	Versada Technologies Private Limited	₹5000 /Month
16	20-04-2018	Kovvuri Lalitha	Youth Empowerment Foundation	Performance Based
17	28-03-2018	Likhita Polamarasetti	INDIA Redefined	Performance Based
18	25-03-2018	Kukkadapu Pratyusha	INDIA Redefined	Performance Based
19	24-03-2018	Shushma Sree	GetInHours	₹50 /500 Products
20	23-02-2018	Srivalli Malla	E-Summit IIT Roorkee	Performance Based
21	08-02-2018	Srivalli Malla	Aparoksha , IIIT Allahabad	Performance Based
22	12-01-2018	Likhita Polamarasetti	WhizJuniors	₹3000 /Month
23	06-12-2017	Koribilli Sravani	AP Janmabhoomi	Performance Based
24	25-11-2017	Likhita Polamarasetti	AP Janmabhoomi	Performance Based
25	25-11-2017	Dokala Anusha	AP Janmabhoomi	Performance Based
26	25-11-2017	Vysali Pinnamaraju	AP Janmabhoomi	Performance Based
27	25-11-2017	M Ratna Sahithi	AP Janmabhoomi	Performance Based
28	01-08-2017	Srivalli Malla	Digital Web Analytics And Optimization	₹3000 /Month
29	26-08-2019	Sindhu Mallidi	TECHNOVIT 2019, VIT CHENNAI	Performance Based
30	25-08-2019	V Kavya Kanaka Mahalakshmi	INDIA Redefined	Performance Based

31	25-08-2019	Tummapala Jaya	INDIA Redefined	Performance Based
32	25-08-2019	Parapati Neelaveni	INDIA Redefined	Performance Based
33	24-08-2019	Nemani Subha Sri	TECHNOVIT 2019, VIT CHENNAI	Performance Based
34	24-08-2019	Tummapala Jaya	TECHNOVIT 2019, VIT CHENNAI	Performance Based
35	23-08-2019	V Kavya Kanaka Mahalakshmi	TECHNOVIT 2019, VIT CHENNAI	Performance Based
36	23-08-2019	Parapati Neelaveni	TECHNOVIT 2019, VIT CHENNAI	Performance Based
37	23-08-2019	Mattaparthi Samyuktha	TECHNOVIT 2019, VIT CHENNAI	Performance Based
38	22-08-2019	Vineetha Lankada	INDIA Redefined	Performance Based
39	04-07-2019	Mattaparthi Samyuktha	LUDIFU	₹20000-30000 /Month
40	22-06-2019	Mattaparthi Samyuktha	INDIA Redefined	Performance Based
41	15-03-2019	Lalitya Gunisetty	IDBI Federal Life Insurance Company Limited	₹10000-15000 /Month
42	15-03-2019	Deepika Ejji	Toise Tech Products (OPC) Private Limited	₹9000 /Month
43	15-03-2019	Deepika Ejji	Entreesphere	₹2500 /Month
44	12-03-2019	Deepika Ejji	Bit Brothers	₹5000-10000 /Month
45	10-02-2019	Kandregula Bhagyasri	Tryst, IIT Delhi	Performance Based
46	22-01-2019	Nadikoppula Divya	Tryst, IIT Delhi	Performance Based
47	14-01-2019	Nadikoppula Divya	E Cell, FMS Delhi	Performance Based
48	27-11-2018	Nadikoppula Divya	United Nations Volunteer	Performance Based
49	17-11-2018	Nadikoppula Divya	INDIA Redefined	Performance Based
50	26-07-2018	Balireddy Shyne	HappyShappy.com	Performance Based
51	23-07-2018	Nadikoppula Divya	E-Cell, IIT Bombay	Performance Based
52	11-06-2018	Priyanka Bobbadi	Creation Cradle	Performance Based
53	10-04-2018	Priyanka Bobbadi	FeHype	Performance Based

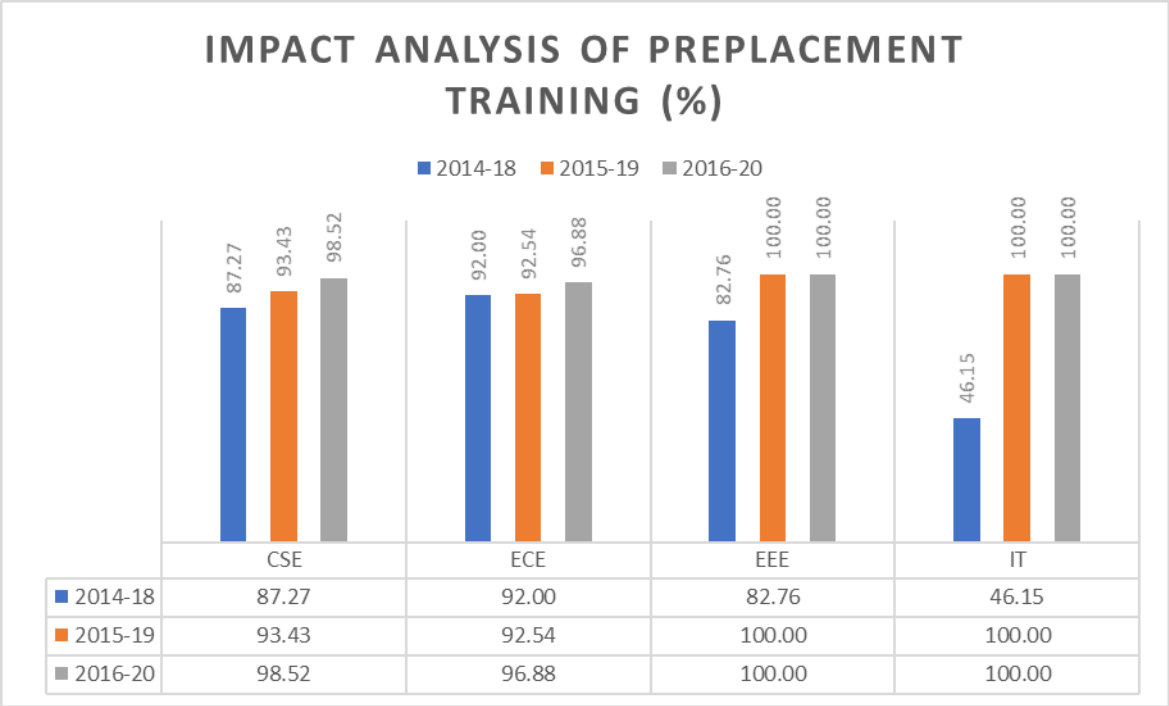
Effectiveness & Impact Analysis Pre-Placement Training:

Effectiveness and impact analysis of our pre-placement training was illustrated in below figure B.9.5.1 which show the continuous improvement in the last three academic year among all the programs. Percentage of students got placed who received Preplacement training was given in detail in the Table B.9.5.8.

Table B.9.5.8: Effectiveness of the Pre-Placement Training:

S No	Batch	Branch	Total Strenth	Students Registered	Students Placed	%
2	2014-18	CSE	170	110	96	87.27
		ECE	175	100	92	92.00

		EEE	62	29	24	82.76
		IT	15	13	6	46.15
3	2015-19	CSE	183	137	128	93.43
		ECE	186	67	62	92.54
		EEE	85	33	33	100.00
		IT	47	29	29	100.00
4	2016-20	CSE	186	135	133	98.52
		ECE	195	96	93	96.88
		EEE	118	62	62	100.00
		IT	51	28	28	100.00



9.5.D. Placement Process & Support

Placement Process & Support at Vignan's Institute of Engineering For Women was lead by the Training & Placement Committee as stated in Table 9.5.5. In the beginning of the Placement Academic year, an invitation brochure with the prospects of our institution will be sent to different organizations meeting the standards of our students inviting to test, analyse and recruit our students. Placement support is inclusive of the TPC committee provided with dedicated seminar hall for preplacement talks, board room for panel discussions, 3 interview panels with a provision for another 4 panels with restructuring for TR & HR interviews. Successive procedure of ***Placement Process and Support*** is as follows:

1. Inviting selective organizations/companies through institute prospects brochure.
2. Collecting the Job Descriptions of the organizations/companies to ensure the prerequisites of our students trained.
3. If any deficiencies or extra skills required will be asserted and forwarded to Principal through TPO for further approval of conduct.
4. Ensuring the students undergone preplacement training meet the JD requirements.
5. Upon the campus hiring request received by the company, the same will be concerned the Principal and TP Cell Committee for further approval date of conduct of campus hiring with reference to step 4 & 5.
6. Schedule date/date's will informed to students through TP Cell for preparing themselves in prior for the campus hiring.
7. Ensuring the eligible students have all the documents verified by the respective member of TPC Committee at least 24 hours prior to the hiring process.
8. Conduct of the campus drive with all the amentities at our institution.
9. If the requirement of the company/organization is beyond the number of eligible students at our campus we are inviting in and around campuses students to participate in the campus hiring with social responsibility.
10. Feedback will be taken against the performance of our students for further improvement in the preplacement training process.
11. Post hiring process, the list of selected students will be sent to Program coordinators through principal for further filing of offer letters/confirmation as proof of placement.

Effectiveness & Impact Analysis of Placement Process & Support:

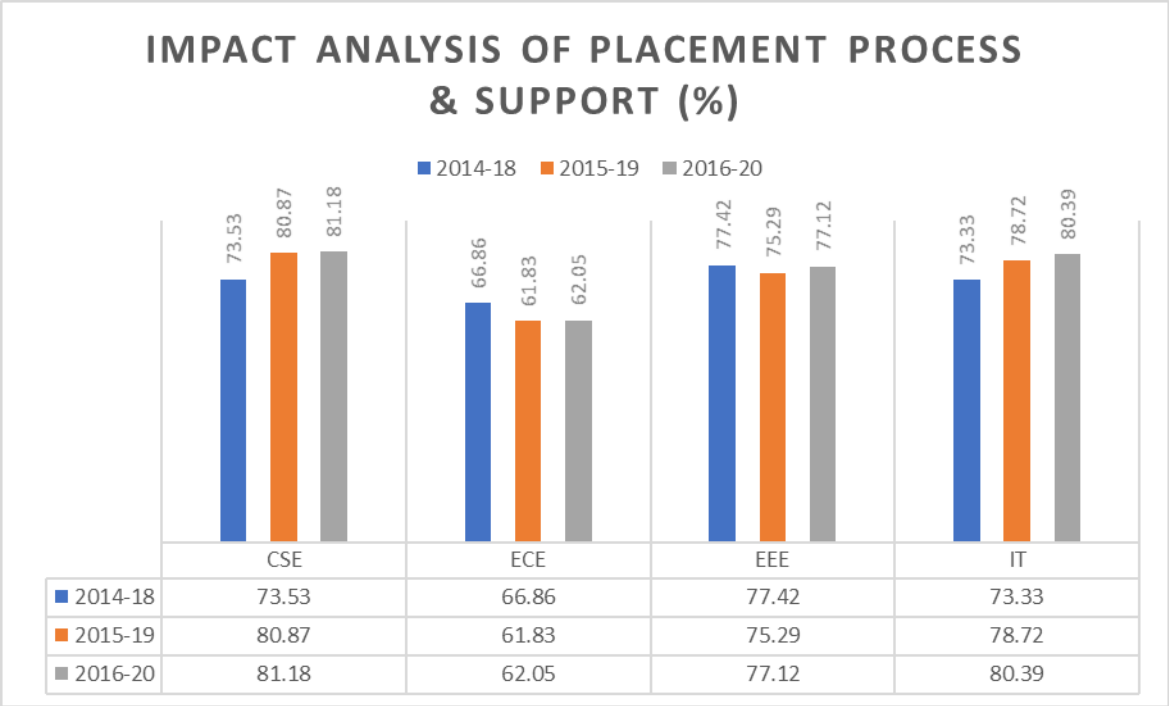
The effectiveness of the Placement Process & Support system designed and adopted at VIEW was very effective over last three academic years and clearly illustrated in the table 9.5.9.

Table B.9.5.9 Effectiveness of Placement Process & Support:

S No	Batch	Branch	Total Strenth	Final Placements	% Placed
1	2014-18	CSE	170	125	**73.53**
		ECE	175	117	**66.86**
		EEE	62	48	**77.42**
		IT	15	11	**73.33**
2	2015-19	CSE	183	148	**80.87**
		ECE	186	115	**61.83**

		EEE	85	64	**75.29**
		IT	47	37	**78.72**
3	2016-20	CSE	186	151	**81.18**
		ECE	195	121	**62.05**
		EEE	118	91	**77.12**
		IT	51	41	**80.39**
Overall			**1473**	**1069**	**72.57**

Impact Analysis of Placement Process & Support:



For the batch of 2015-2019 the core streams/programs has slight drop in number of students placed because of the recession in core streams and however for the software streams/programs CSE & IT over the last three academic years there is a continuous improvement in number of students placed.

9.6. Entrepreneurship Cell (5)

(The institution may describe the facility, its management and its effectiveness in encouraging entrepreneurship and incubation) (Success stories for each of the assessment years are to be mentioned)

The Entrepreneurship Development cell in Vignan's Institute of Engineering for Women was established in the year 2012 under the supervision of the Department of Management Studies. The head of the Entrepreneurship Development cell is Dr. S Ramesh, HOD-MBA and a team

of dynamic faculty coordinators from various departments together form a strong team in encouraging entrepreneurship. The goal of EDC is to assist the students, faculty and budding entrepreneurs within the college with start-ups or existing business in regards to the management of finances, marketing, product development and commercialization. The students are provided with the latest inputs about the industry, the dynamic changes happening around to make them understand the employability options and opportunities to help them create better opportunities.

The ED Cell functions on the following goals:

- To create an environment for self-employment, promote innovation and Entrepreneurship development through various programs
- To introduce the concept of Entrepreneurship as a part of the curriculum
- To promote employment opportunities
- Intellectual Property Rights/Management
- Help with Presentation Skills and Business Etiquettes
- Comprehensive Business Training Programs

9.6.1 Entrepreneurship Development Cell Committee

Table 9.6.1: Members of the Entrepreneurship Development Cell Committee

S.No	Name	Designation	Position
1.	Dr. J. Sudhakar	Principal	Chairman
2.	Dr. S. Ramesh	HOD-MBA	Head-Secretary
3.	Dr. K. Vijay Kumar	HOD-CSE	Member
4.	Dr. K.Durga Shyam Prasad	HOD-EEE	Member
5.	Mr. Ch.Ramesh	In charge HOD-ECE	Member
6.	Mr. V. Ananda Babu	Associate Professor-ME	Member

9.6.2 Entrepreneurship Initiatives

The initiatives of the ED cell focuses on the development of primarily the students as well as the faculty therefore the programs are conducted as per the interests of the students either higher studies or placement assistance and training or entrepreneurship. The faculty who are interested in entrepreneurship or specialized in marketing are encouraged to attend various Faculty development programs, workshops and seminars in order to develop their skills and fulfill their interests.

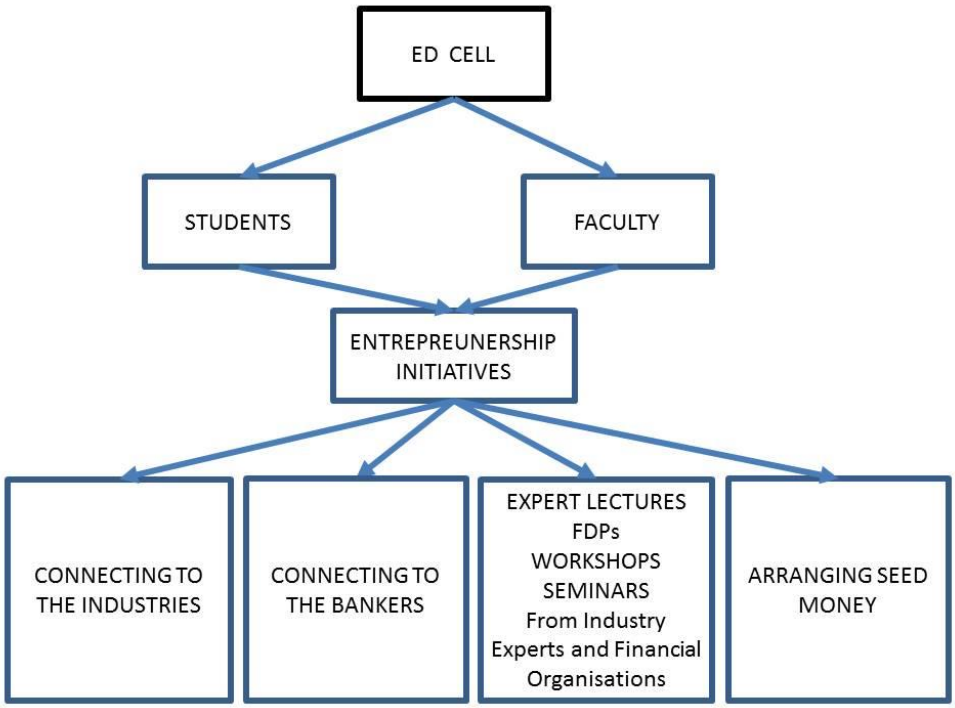


Figure B.9.6.1: ED Cell Structure

Connecting to the Industries

- Industry exposure is provided to the students and faculty on a regular basis
- The students are connected to the industries through interactive programs and career guidance.
- The students are encouraged to visit industries and learn about the advanced technology.
- MOUs with industries permit the students to take up industrial training and get hands on experience.

Connecting to the bankers

- The students are connected to the financial organisations through interactive sessions from experts.
- The information on loan approvals with agency systems support is given and the students are motivated.

Guest lectures from financial institutions

- Guest lectures from banking sectors like SBI, even MSME coordinators have been conducted and delivered lectures on funding.
- The guest lectures are conducted on a frequent basis.

- The lectures guide the students and faculty on how to approach various organisations for financial help.
- The experts guide the students in managing the finances while initiating a new startup idea.

Guest lectures from industry experts

- We regularly and very frequently invite experts from industry to deliver their practical experiences and examples to students
- Each and every department of our college organizes and invite guest lectures from industry on various occasions
- The industrial lectures are a source of information for providing details on the various start up ideas.
- Experts from industries share their experience on the various hurdles that come during a startup and how to overcome them.

Table B.9.6.2: Entrepreneurship Activities during the tenure 2017-2020

S.No	`Date	Event	Resource Persons	Members Attended
1	02.08.2018 to 06.08.2018	5-Day Entrepreneurship Development Program in collaboration with Vignan University	Dr. D. Bhattacharya, VIT Mr. G. Nageswaran Director MSME Mr. B Kalyan Vardhan, Senior coordinator MSME Mr. K Satish,CEO 9 Solutions	3rd and Final Year Students of all Branches
2	26.11.2019	Entrepreneur Development Program in coordination with Software Technology Parks of India	Mr. P. Dubey, Joint Director STPI Mrs M. Lakshmi, CEO ,PATRA Mr. R.L. Narayana, President ITAIP Mrs. P Neeraja, HR IEMEG	3rd and Final Year Students of all Branches
3	10.02.2020 to 22-02-2020	Two Week National Level Faculty Development Program sponsored by DST and Organised by National Institute for Small and Medium Enterprises	Dr. P Satish Dr. P.S. Ravindra Mrs. Padmaja Dr. Ch. Govinda Rao	Faculty of all branches

9.6.3 Entrepreneurship Development Cell facilities:

Table B.9.6.3: Facilities for ED Cell

S.No	Description	Number
1	Computers	2
2	Printers	2
3	LCD Projectors	2
4	White Board	1
5	Seminar Hall	1

9.6.4 Effectiveness of Entrepreneurship Development Cell

Entrepreneuship Development Cell has conducted listed events to motivate, guide and develop students to create their own ventures. Such startups and outcomes of ED Cell were listed below in table B.9.6.4.

Table B.9.6.4: List of Entrepreneurs in the tenure 2017-2020

S No.	Name of the Student	Branch	Type of Business	Name of the Company and Place
1.	P.Sravani & K.Mani Harika	EEE	Startup	A prototype on Women Safety using Alarm buzzer system using GPS, Visakhapatnam
2.	Lakshmi Durga	ECE	Dance School	Dance Academy,Visakhapatnam
3	A Alekhya and G Keerthi	IT	Dance Academy	Dance Academy
4	T. Bindu Sai	CSE	Freelancer Business	Bindu Health and Wellness Centre,Visakhapatnam
5	Majji Swetha	EEE	Start-up	Key Chain Hangers with 3D Printer
6	Ponnada Srikavya	EEE	Start-up	Designed Slates with Multi-CNC machine.
7	Pasem Harshitha	CSE	Start-up App	V-Aahar

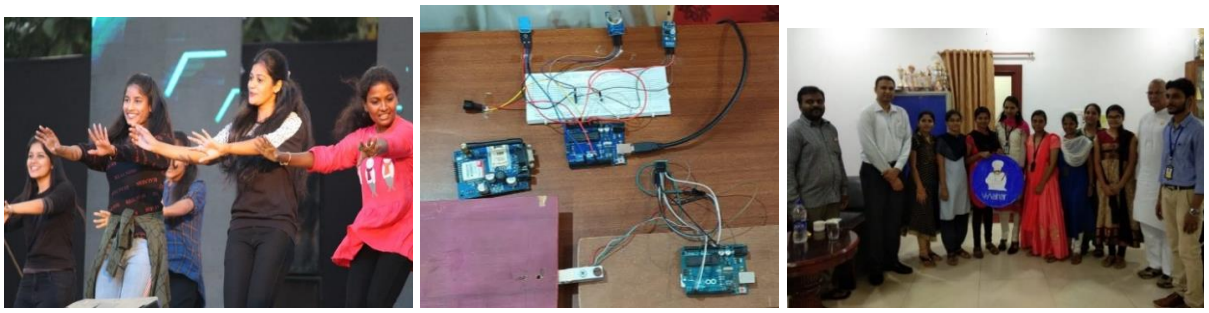


Figure B.9.6.2: Various Enterpreneurs

9.7. Co-curricular and Extra-curricular Activities (10)

(The institution may specify the co-curricular and extra-curricular activities) (Quantify activities such as NCC, NSS, etc.)

9.7. Co-curricular and Extra-curricular Activities (10):

As per our vision, institute constantly beliefs to produce not only the knowledgeable students but professionals of all round personality by providing various co-curricular and extracurricular activities. We believe that it helps not only getting placements but also helps them to grow their leadership qualities.

Co-curricular activities are attempted alongside with academic studies. Most commonly, outside the normal classrooms co-curricular activities are performed and they augment academic curriculum and lend a hand for learning by doing. These activities help students to enhance their problem-solving, critical thinking, reasoning, creative thinking, communication, and collaborative abilities. Involvement in any co-curricular activities helps students in emotional development, social skill development, and overall personality development.

Students who involve themselves in extra-curricular activities learn how to commit in a specific thing they get involved in. Extracurricular activities are supremely important in a student's life. Students who engage in extracurricular activities meet new individuals and can enlarge their sphere which is also advantageous in finding better career opportunities. Skills like collaboration, time management, activity management, group leading and many more additional abilities can be enhanced. Students who participate in sports and other group activities possess better leadership skills and learn how to grow relations with each other.

A. Availability of sports and cultural facilities (3)

B. NCC, NSS and other clubs (3)

C. Annual student's activities (4)

Procedure for looking of girl health at the time of admission:

It is astonishing to note 70% of the girls are having deficiency of blood in physical body which in turns hampers their learning abilities for which we have taken measures like student was asked to run 1 km at playground and provided ground nuts with jaggary in order to improve the iron percentage in blood thereby it improves strength to the muscle and also asked them to participate in co-curricular activities.

Table B.9.7.a: List of Indoor and Outdoor game facilities available in the Campus.

Sl.NO	Name Of The Sport Facility	QUANTITY	Place of Availability
1	Throw Ball Nets	6	PD ROOM
2	Throw BALLS	10	
3	Volley Ball Net	4	
4	Volley Balls	7	
5	Volley Ball Antenna	1 (Pair)	
6	Ball Badminton Nets	2	
7	Ball Badminton Rockets	7	
8	Shuttle Nets	5	
9	Shuttle Rockets	30	
10	Shuttle Barrels	5	
11	Tenni-Koit Nets	4	
12	Tenni-Koits	7	
13	Carrom Boards	9	PD ROOM
14	Carrom Board Coins	15 (Sets)	
15	Carrom Board Powder	2	
16	Strikers Box	1	
17	Chess Boards	9	
18	Chess Board Coins	10 (Sets)	
19	Cricket Bats	2	
20	Cricket Stumps	2 (Pairs)	
21	Cricket Balls	7	
22	Kho-Kho Poles	2 (Sets)	
23	Shot-Put	3	
24	Discuss	2	
25	Javelin Throw	1	
26	Skipping Ropes	10	
27	Weighing Machine	Old 1and New 1	
28	Foot Ball	1	
29	Stop Watch	2	
30	Air Pump	1	
31	Measuring Tap	1	
32	Marking Ropes	3	
33	Table Tennis Board	1	
34	Table Tennis Balls	4 Boxes	
35	Table Tennis Net	1	
36	Table Tennis Rockets	4(Pairs)	
37	Ground Roller	1	

AVAILABLE LIST OF COURTS

S.No	List Of The Courts	Quantity
1	Throw Ball	2
2	Volley Ball	2
3	Kho-Kho	1
4	Shuttle	2
5	Tenni-Koit	1
6	Kabaddi	1
7	Cricket Pitch	1
8	200mts Track	1

Table B.9.7.b: List of NCC, NSS and other clubs conducted in the campus

S No	Name of the Event	Date	Students Attended/Participated	Guests	Outcome	Relevance of PO
FOR ACADEMIC YEAR 2019-20						
1	Passport Mela	12th December, 2019	832	Regional Passport Officer NLP Chowdary	Most of the Engineering students have been issued passports for their further education in abroad.	**PO6**
2	Donations to AIDS effected child patients	3rd December, 2019	60	---	Distributed fruits and provisions to the AIDS effected children at AIDS home	**PO7**
3	Essay writing competition on "Indian Constitution-Current challenges and Future"	26th November, 2019	80	----	Essay writing competition on the constitution related topic, is held on the occasion of National Constitution day	**PO1, PO6**
4	Say no to Plastic	30th September, 2019	65	----	Created awareness in Amrutapuram Village against plastic usage and distributed cloth bags	**PO6**
5	Awareness Rally on Mahatma Gandhi Quotes on Independence Day	15th August, 2019	150	-----	Created awareness in public on Mahatma Gandhi's preaching's or quotes by a rally at Sheela Nagar	**PO8**
6	Awareness Program on "Cyber Crime"	8th August, 2019	150	Joint Commissioner of Police Shri K. Prabhakar Garu	Created awareness on cyber crime	**PO1, PO2**
7	150th Birth day Celebrations of "Mahatma	31st July, 2019	30	----	Essay writing competition conducted on "Mahatma Gandhi's Life"	**PO7, PO12**

	Gandhi"					
8	Poster presentation and essay writing competition and craft exhibition on "Recycling the waste"	19th July, 2019	50	----	Conducted poster presentation and essay writing competition and crafts exhibition to students	**PO12, PO10**
9	Awareness program on "Bank loans"	10th July, 2019	60	ICICI Bank Manager Hemanth Kumar, Kurmannapalem	Created awareness on education loan, gold loan, Visa loan etc.,	**PO7**
10	International Day of Yoga (IDY)	21st June, 2019	80	Nagesh Kumar, Yoga trainer, Anakapalle	Demonstrated different yoga postures to the students	**PO9**
11	Blood donation camp "World blood donor's day"	14th June, 2019	150	Sanjeevani blood bank, Gajuwaka	More than 150 students donated blood	**PO6**
12	"World Environment day"	5th June, 2019	30	---	Planted a tree per head in and out of the campus by students	**PO8**
13	Sharing of Joy	20th January, 2019	30	Sister Vandana, Nirmala Sadan, Gnanapuram	Interaction of SPHOORTI orphanage, Gajuwaka, children with the old age home adults of NIRMALA SADAN, Gnanapuram on the new year eve.	**PO9**
14	Swatch Survekshan	5th January, 2019	200	President, Junior chamber International, Waltair	To encourage large scale citizen participation, ensure sustainability of initiatives taken towards garbage free and open defecation free cities and create awareness amongst all sections of society about the importance of working together towards making towns and cities a better place to live in.	**PO9, PO8**
15	Awareness Program on "Personal Hygiene"	14th March, 2020	160	Hindustan Uni lever Manager Mrs. Krishna Kumari	Explained students how to be clean and how to maintain the personal health with proper care and precautions	**PO7, PO9**
16	Stand for the Nation	14th February, 2020	200	--	Paid a great Tribute to Indian Soldiers died in Pulwama Attack, 2019	**PO8, PO9**
17	Awareness program on 'Consumer Rights and Human Rights'	7th February, 2020	200	Consumer forum Judge Mrs. P. Surya Bhaskaram and State	Created Awareness in students on human rights and consumer rights i.e. how to avoid consumer frauds and how to put a case in consumer forum	**PO8, PO10**

				Secretary Human Rights Council members MVS Murthy, M. Syam Prasad	etc.,	
FOR ACADEMIC YEAR 2018-19						
18	Blood Donation Camp on 'World Blood donors day'	14th June, 2018	121	JCI President Dr. J Siva Satyanarayana	Created awareness on blood donation and collected 121 units of blood from the staff and students	**PO7, PO8, PO9**
19	Plantation on 'World Environmental day'	5th June, 2018	84	Social activist Mr.	Awareness on environmental issues and pledged against plastic usage	**PO7**
20	Social enterprise "R3 Project"	4th April, 2018	124	Akshya Patra Foundation Secretary D. Jitaamitra Dasa	Awareness on Reduce, Reuse and Recycle of old books and papers into new books	**PO9**
21	LLR (Learners License Registration) Mela	15th February, 2018	250	Senior Motor Vehicle Inspector Mr. Butchi Raju	Issued temporary driving license	**PO9**
FOR ACADEMIC YEAR 2017-18						
22	Inspirational talk	28th October, 2017	164	Dr. Yandamuri Veerendranath	Living a Healthy and Balanced Life : Beat Stress	**PO8**
23	Vigilance Awareness Week & speech on "Role of youth in building healthy society"	16th October, 2017	148	vigilance officers of Rashtriya Ispat Nigam Ltd., (RINL) Mr. Rajesh Kumar, Mrs. Dainy Cheriyan	Elocution competition on "My Vision- Corruption Free India"	**PO8, PO10**
24	Eco Ganesha	24th August, 2017	251	Vaisakhi Team	Importance of using Eco friendly Ganesha Idols	PO9
25	Potential Ways to Golden future by CII, YI organizations	12th August, 2017	155	Lovyo Foods Chairman Lakshmanan Krishnamurthy	Golden future with	**PO9,**
26	Registrations in Electoral Roll	6th July, 2017	210	------	Voters registration and its importance	**PO9**
27	Health camp for faculty	1st July, 2017	140	OMNI RK Hospitals, Visakhapatnam	General Health Checkups and tips to healthy lifestyle	**PO9**

28	General Medical Checkup	1st July, 2017	180	OMNI RK Hospitals Gynecologist Ms. M.N. Pallavi	A talk on "What a woman should know"	**PO9**
29	International Yoga Day Celebrations	21st June, 2017	120	Patanjali Yoga Centre trainer B. Devi	Various forms of Yogasanas and their Significance	**PO9**
30	Motivational Seminar	14th March, 2017	289	Dr. Yandamuri Veerendranath	Interaction with the students and motivation towards general awareness	**PO8, PO9**
31	Awareness Program on 'Mahila Rakshana Chattalu'	21st February, 2017	167	Chief Guest Senior Civil Judge Naga Sundar, Visakhapatnam	Created awareness by explaining the proper acts on violence on women	**PO9, PO10**
32	Guest Lecture	17th February, 2017	193	Programming Director, Sameer Electronics, B. Subba Rao, Visakhapatnam	Development of leadership qualities from student level	**PO8**
33	Awareness Program on Road Safety Measures	23th January, 2017	258	Regional Transport Officer I. Siva Prasad, Visakhapatnam	Addressed all the students and advised to follow the safety measures while driving	**PO9**
34	Motivational Speech	24th March, 2017	175	VSEZ Development Officer, Sobhana KS Rao, Visakhapatnam	Potential development with communication skills	**PO9**

Co-curricular Activities:

Under co-curricular activities -Engineers day, Mathematics day, Education day, and Teachers day, professional society activities under SAE, ISTE and annual day. Along with the above-mentioned events, various co-curricular activities like debate and discussion, Quiz, paper presentations, seminars and group discussion sessions, Industrial visits, workshops, Co-Curricular Club Activities, Project Expo, Online Courses (MOOCs) are conducted.

- Each and every department has organized seminars, workshops, technical events such as Tech Fest to enhance communication skills in students.

- All departments conducted guest lecturers to gain more knowledge on the subject.
- Every year institutional level fests are conducted to enhance technical and nontechnical skills of the students. Here they conduct PPTs, poster presentations, quizzes, seminars, sports (indoor and outdoor games), etc.

Table B.9.7: Glimpse of events organized in view for the 2017-18,2018-19, 2019-20.

FOR ACEDEMIC YEAR 2019-20		
S No	**NAME OF THE EVENT**	**DATE**
1	Workshop on skill first job follows by Mr.suresh Kumar mobility solution architect and head consultant -Wipro	29-01-2019
2	College level throw ball tournament	09-02-2019
3	A seminar on best practices in research by Dr. ajith kumar panda	15-02-2019
4	Awareness program on ambedkar overseas vidyanidhi and NTR videshi vidya	14-02-2019
5	Yuvatarang 2k19	16&17 -02-2019
6	National science day celebrations competitions	28-02-2019
7	Workshop on hour to avail passport	1-03-2019
8	International women's day –ceo ,head operations-hotel p l grand Visakhapatnam, assistant professor-gitam college, one lady doctor	08-03-2019
9	Awareness program on cyber crime assistant commissioner of police crime k.prabhakar babu zone-2 vskp	08-03-2019
10	Unnath bharath abhiyan rural development scheme	
11	Awareness sessions on postal life insurance	13-03-2019
12	Alumni-2k19	22-06-2019
13	World blood donation camp	14-06-2019
14	International yoga day	21-06-2019
15	Essay writing competition on the occasion of 125th anniversary of swami Vivekananda Chicago addressed	4-07-2019
16	Awareness program on environmental protection with IRDA integrated rural development authority	18-07-2019
17	IRDA integrated rural development authority-poster presentation	18-07-2019
18	Seminar environment sustainability	18-07-2019
19	Interactive session of faculty with ap medtech zone	2-08-2019
20	National sports day	29-08-2019
21	Engineers day	15-09-2019
22	Seminar on "positive thinking "by sri.b.k.mohan singal	7-09-2019
23	Essay writing competition on the occasion of 150th birth anniversary of mahatma Gandhi	2-10-2019
24 25	Workshop on ''women entrepreneurship-IT as enabler-Digital India"	25-11-2019
26	Placement success meet	7-12-2019
27	Yuvatarang 2k20	11&12-01-2020
28	Awareness program on "human rights in association with human right	07-02-2020

	council"	
29	Google Hash Code 20202-Techkruthi club	20-02-2020
30	Awareness program on Tier-2 NBA Accreditation by Dr.Shik Rafi Ahemand	03-03-2020
31	Technical fest-2k20(Techritz)	6-03-2020 7-03-2020
FOR ACEDEMIC YEAR 2018-2019		
1	Graduation Day	01-06-2018
2	Yuvatarang 2k18	06-06-2018 07-06-2018
3	Alumni Meet	01-07-2018
4	Throw ball tournament(Srividya)	
5	Learners licence by Ap Transport Department	02-12-2018
6	National Science Day Celebrations	28-02-2018
7	Open house Exhibition display	
8	Essay Writing on has technology made the world smaller or bigger	
9	Institute of Engineers, India college level committee	
10	APSSDC-MSDQE,GOI-National skill Competition	28-02-2018
11	R3 Project reduce recycle and reuse(by Akshayaptra)	28-02-2018
12	International Women's day guest lecture on "gynic issue among women's" by Dr.Geetha vandhana	03-07-2018
13	Electron Zonal level Competition	03-8-2018
14	International women's day celebration	03-10-2018
15	Formation of Cm's skill excellence center	28-03-2018
16	Workshop on cyber security systems by Apita	13-04-2018
17	APSSDC FDP	05-07-2018
18	World Blood Donation day By ICI	14-06-2018
19	Learner license mela	30-07-2018
20	English language Club launch	07-04-2018
21	Seminar On outcome Based education	17-07-2018
22	Engineers day celebrations	15-09-2018
23	IUCEE Cluster	
24	FDP on NBA Accreditation procedure,NITTR	12-11-2018 To 16-11-2018
25	Vizag Navy marathon	18-11-2018
26	Conference on transforming education conference for Humanity	15-11-2018 to 17-11-2018
27	Vignan picnic	02-12-2018
28	APSSDC Awareness on game development for 12 days	12-12-2018
FOR ACEDEMIC YEAR 2017-2018		
1	Yuvtarang 2K17	07-01-2017 08-01-2017
2	Positive thinking-Pathway to success ASDKPAL.COM	24-01-2017
3	Interactive sessions on Tax Benefits of Demat Account	25-01-2017
4	Dr.J.Sudhakar Major project	01-03-2017
5	Motivational Seminar by Sri Venugopal,Visakhapatnam Awardee	07-03-2017
6	International Womens day-SAC, VIEW	08-03-2017
7	Earth Hour-SAC, VIEW	24-03-2017
8	International Yoga Day	21-06-2017
9	Free Health Camp	29-06-2017
10	Speacial Drive For Electoral poll for the first time voter	05-07-2017

11	Seminar On preparedness for NAAC	08-07-2017
12	Seminar on “manifest your dreams” by MS.Manedna mishra, senior system engineer,Infosys limited	16-08-2017
13	National sports day	29-08-2017
14	Seminar On “Every end has new beginning”- A Light by MS.Madhuri Sunkara, JBM	26-08-2017
15	Workshop on “Transformative Youth and Engineering Education Towards a Sustainable Future.	30-08-2017 to 01-09-2017
16	VISTA-2K17	14-09-2017
17	Elecution Competition on “My Vision-Corruption free India”	17-10-2017
18	A Master class acts as platform to have best motivation for all budding engineers	28-10-2017
19	Seminar on “NAAC-SRR-A case study” by KCB Rao	10-11-2017
20	FDP on “One week on Industrial Design and Deliver System” in Association with national Institute Of Technical teachers training and research, Chennai	13-11-2017 to 18-11-2017
21	Workshop on “Employability skills” by Keerthi Sagar Naik, HR-DXE Technologies	24-11-2017
22	Students Interactive Sessions with HR-InfoTech Association	25-11-2017
23	An Awareness Program on legal rights of women	27-11-2017
24	Round table faculty interaction program for future scope	23-12-2017

Table 9.7.C: Details of the co-curricular activities

WORKSHOPS FOR ACADEMIC YEAR 2019-20					
S No	**NAME OF THE WORKSHOP**	**DATE OF EVENT**	**NO OF PARTICIPANTS**	**HOST OF THE EVENT**	**DEPART-MENT**
1	MSTP workshop	20-08-19 to 28-02-20	60	By APSSDC	CSE
2	Android Biotics& Android Based Robotics.	24-12-19 & 25-12-2019	98	Mr. Deepak Mourya, Mr. Jayesh Sharma	
3	Cyber security and ethical hacking	21-06-19 to 15-06-19	2	GITAM	
4	Workshop on Machine learning using python	13-05-19 to 07-06-19	1	JNTU HYDERABAD	
5	Web Development using python	19-08-2019 to 26-08-2019	1	VIIT	
6	Workshop on ethical hacking and cyber Security.	07-02-2019 to 08-02-2019	1	ANITS,VISAKHAPATNAM	
7	international workshop on AI and soft computing	06-12-2019 TO 08-12-2019	1	VIIT	
8	Techno philia Solutions under Microsoft	02-03-2019 and 03-03-2019	1	IIT Hyderabad.	

	Associate on IOT				
9	Web development by Engineers hub	20-12-2019 and 21-12-2019	1	Andhra University, Vizag	
10	Mobile Application development by Engineers hub at Andhra University.	22-12-2019 and 23-12-2019	1	Andhra university, Vizag.	
11	INTERNET OF THINGS	20-07-2019 to 21-07-2019	1	Indian Institute of Technology(IIT) ,Hyderabad	
12	Internet of things	02-03-2019 to 03-03-2019	1	Indian Institute of Technology(IIT) ,Hyderabad	
13	Ethical Hacking and Cyber Security	07-02-2019 to 08-02-2019	1	ANITS	
14	MOBILE APPLICATION DEVELOPMENT WITH ANDROID	11-12-2019 to 12-12-2019	1	VIZAG	
15	CYBER SECURITY AND ETHICAL HACKING.	28-09-2019 to 29-09-2019	1	GITAM	
16	INTERNET OF THINGS	20-07-2019 to 21-07-2019	1	IIT HYD	
17	Block Chain Technology	04-01-2019 to 07-01-2019	1	GMRIT University	
18	Artificial Intelligence and Soft Computing	06-12-2018 to 07-12-2018	1	VIIT	
19	ETHICAL HACKING By Techobyte.	05-01-2019 to 06-01-2019	1	IIT Hyderabad	
20	Cloud Computing	25-08-2019 to 26-08-2019	1	BITS	
21	ETHICAL HACKING By Techobyte.	05-01-2019 to 06-01-2019	2	IIT Hyderabad	
22	Workshop On Developing Server less Applications	19-01-2019	2	SYMBIOSIS TECHNOLOGIES RUSHIKONDA	
23	DATA SCIENCE WORKSHOP	25-02-2019 TO 26-02-2019	2	JNTU VIZIANAGARAM	CSE
24	4G/5G LYTE	15-02-2019 TO 16-02-2019	1	VIIT	
25	Udacity, Nano Degree Program for Android Developer	18-01-2019 to 22-01-2019	7	Udacity	
26	Web Technologies Using Python	19-08-19 to 28-08-19	198	Mr.M.Prasanna Raju &Mr.M.V.Gopi	
27	Cyber security and Ethical hacking	09-09-2019 to 10-09-2019	100	Mr. Manish Yadav	

28	Database Design And Programming With Sql (FDP)	21-10-2019 to 25-10-2019	35	Mr.V.T. LingeswaraRao	
29	Problem Solving Skills using C	03.09.2019 – 07.09.2019	54	APSSDC	IT
30	Game Development using Blue box	17.03.2020 – 19.03.2020	54	APSSDC	IT
31	Problem Solving using Python	18.03.2020 – 20.03.2020	54	APSSDC	IT
32	Machine Learning	27.05.2020 – 29.05.2020	99	Brain-o-Vision	IT
33	Mobile App. Development	12.08.2019	07	Student Solution Body	
34	Raspberry Pi	25.08.2019	02	HMI Services	
35	Starts for Entrepreneurs	4/4/2019	100	Smt.Sai Lakshmi	MBA
36	Women Empowerment IT as enabler: Digital India	26/11/19	250	Mr.M.P.Dubey Mr.R.L.Narayana Smt.Lakshmi Dr.K.Suseela	MBA
37.	Grid Connected Power system and its Applications	28.8.2019	100	Mr.Ajay R, NTPC	EEE
38.	Soft Computing Techniques	17-12-2019	80	Dr.Salma U	EEE

WORKSHOPS FOR ACADEMIC YEAR 2018-19

SL.NO	NAME OF THE WORKSHOP	DATE OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMENT
1	Google Android Fundamentals Phase - 2	21-09-2018 to 23-09-2018	74	Ms.Hema Mr.G.Srikanth	CSE
2	Android Development Certification (APSSDC+UDEMY)	08-05-2018 to 14-05-2018	21	Ms.Hema Mr.G.Srikanth	
3	Android Development Certification (APSSDC+UDEMY)	11-08-2018 to 16-08-2018	69	Ms.Hema Mr.G.Srikanth	
4	IOT Certification (coursera + APSSDC	08-05-2018 to 14-05-2018	10	Ms.Hema Mr.G.Srikanth	
5	Gamification With AR & VR – Build box	26-12-2018 daily 2 hours 2 weeks	23	Ms.Hema Mr.G.Srikanth	
6	SCALE	26-07-2018 to 28-07-	47	Shreya adabala,sanketDhadke,rafaeshaik, Hashmitha Rani	

		2018			CSE
7	Workshop on Web Development using React Native	20-12-2018 to 23-12-2018	1	Andhra University Platinum Jubilee Guest House	
8	Workshop on CII Partnership SUMMIT 2018	24-02-2018 to 26-01-2018	1	APIIC Ground, Harbor Park, Visakhapatnam	
9	Workshop on Cyber Security & Malware Analysis	17-09-2018 to 18-09-2018	1	Coastal Institute of Technology & Management	
10	Workshop on 4G/5G Workshop	14-09-2018 to 5-09-2018	2	Vignan's Institute of Information Technology	
11	Workshop on Mobile Application Development	22-12-2018 to 23-12-2018	5	Andhra University (Platinum Jubliee House Seminar Hall)	
12	Workshop on Web Application Development	20-12-2018 to 21-12-2018	3	Andhra University (Platinum Jubliee House Seminar Hall)	
13	Robotics Workshop	21-02-2018 to 22-02-2018	1	VIIT	
14	Workshop on Block chain	02-01-2018 to 04-01-2018	1	Rajam	
15	Cloud computing with Amazon web services.	13-08-2018 to 14-08-2018	2	Baba institute of technology and sciences	
16	IOT	15-11-2018 to 16-11-2018	1	Mumbai	
17	Cloud computing	08-12-2018	1	VIIT	
18	Workshop On Artificial Intelligence	17-02-2018 TO 18-02-2018	1	CISCO NETWORKING ACADEMY	
19	Web Application Development Workshop	20-12-2018 to 21-12-2018	13	AU	
20	Mobile Application	22-12-2018 to	22	AU	CSE

	Development Workshop	23-12-2018			
21	4G/5G Workshop Workshop	14-09-2018 to 15-09-2018	16	VIIT	
22	. Robotics Workshop	21-02-2018 to 22-02-2018	1	VIIT	
23	Artificial intelligence and soft computing Workshop	6-12-2018 to 8-12-2018	5	VIIT	
24	"Women In Leadership"	3/11/18	150	Ms.Azizthayaba Ms.Ektha Singh Ms.Indu Madhavi	MBA
25.	IoT based power system components protection	28.8.2018	120	Prof. AndrzejRucinski University of New Hampshire, USA, Mr. Naresh Kumar Oruganti, Founder & CEO of Symbiosis Technologies & Mr. M P Dubey, Joint	EEE
26.	Basic of Distribute transmission system	28-12-2018	135	Sri.S.Sanjay, Deputy Executive Engineer ,AP Transco	EEE
27.	Ethical hacking workshop	01-01-2018	3	IIT MADRAS	ECE
28	IOT WORKSHOP	25-01-2018	1	AICTE	ECE
WORKSHOPS FOR ACADEMIC YEAR 2017-18					
SL.NO	**NAME OF THE WORKSHOP**	**DATE OF EVENT**	**NO OF PARTICIPANTS**	**HOST OF THE EVENT**	**DEPARTMENT**
1.	Google Android Fundamentals Phase - 1	07-12-2017 to 09-12-2017	75	Ms.Hema Mr.G.Srikanth	
2.	BOOTSTRAP	21-07-2017 to 23-07-2017	56	Brain – O – Vision, Hyderabad	
3.	AP Cloud Mean Stack And Cloud Developer	27-11-2017 to 29-112017	58	AP Cloud Team, Miracle Software Solutions, Visakhapatnam	CSE
4.	Deep Learning Using	13.11.2017 to		Mr. V. SrinadhRao	

	Python(FDP)	19.11.2017			
5.	IOT WORKSHOP	14-09-2017 to 15-09-2017	1	Vignan's Institute Of Information Technology	
6.	"Recent Trends On Financial Management"	5/12/17	60	Mr.Ankit Jain M.Katyayani S.Lalitha	MBA

Figure: HERE PRESENTED APCLOUD WORKSHOP PICTURES

FIG: HERE PRESENTED BOOTCAMP WORKSHOP PICTURES

Fig: Here Presented Android Workshop Pictures

Women In Leadership

Entrepreneuship Awareness Program

Women Empowerment IT as enabler: Digital India

7.	Multi Level Inverter and its applications	28.8.2017	110	The Institution of Engineers (INDIA) [IEI
8.	Latest Developments and limitations of Indian Transmission Systems	28-12-2017	130	Sri.S.Narayana Murthy, Superintendent Engineer, AP Transco
9.	PCB design workshop	30/06/2017& 01/07/2017	10	Que engineering services

10.	Workshop on embedded systems and IOT	14-17 sep 2017	30	Vignan Vizag
11.	embedded systems workshop	11-13 dec 2017	23	APSSDC

SEMINAR ORGANISED FOR ACADEMIC YEAR 2019-20					
S No	NAME OF THE SEMINAR	DATE OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMEN
1	Cyber Security(Seminar)	10-01-2019	70	By **Mr.S.ChandraMouli** at VIEW	CSE
2	Machine learning with R programming	10-01-2019	70	By **Dr.A.Krishna Mohan** at VIEW	
3	Recent Trends in Emerging Technologies	10-01-2019	60	By **Dr.Ch.Jaya Suma** at VIEW	
4	Seminar on Flutter Interact	23-12-2019		MIRACLE SOFTWARE SOLUTIONS	
5	Women empowerment by Nannapaneni raja kumari	10-08-2019	22	VIIT	
6	Motivational Talk	17.07.2019	51	Deccan Chronicle	IT
7.	Awareness Program on Cyber Security	07.08.2019	54	Andhra Pradesh Police Dept.	IT
8.	**Abroad Studies**	17.09.2019	15	NC at Fortune Inn	
9.	Motivational Speech	04.01.2020			
10.	**Listen to Life**	13.06.2019	02	**JCI, Waltair**	
11.	**AISEC**	21.06.2019	15	**AISEC**	
12	Financial Management initiatives in Financial Institutes	29/1/2020	60	K. Sambha Murthy	MBA

Financial Management initiatives in Financial Institutes

13.	Introduction to Smart Grid	18.12.2020	80	Sri.Manoj Kumar, Dy.General Manager, RINL-Visakhapatnam Steel Plant	EEE-
14.	Stem robots for Industrial education and Industrial robots for manufacturing automation	22-9-2019	100	Sudhir Reddy, Director, Jay Robotix Hyderabad, SudhirSanna, Professor and CEO Robotics and Automation	EEE

SEMINAR ORGANISED FOR ACADEMIC YEAR 2018-2019

S No	NAME OF THE SEMINAR	DATE OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMEN
1	Women empowerment by Nannapaneni raja kumari	10-08-2019	22	VIIT	CSE
2	**Seminar on Artificial Intelligence and Soft Computing**	06-12-2018	1	VIIT	CSE
3.	Cloud computing	08-12-2018	1	VIIT	CSE
4.	Women Empowerment Seminar	10-03-2018	**3**	VIIT	CSE
5.	Digital Transformation	22-9-2018	**120**	Mr.M.ChandraSekhar, Program Manager, TCS, Hyderabad	EEE
6.	“Skills First Jobs Follow”	28-12-2018 & 29-12-2018		Mr. Suresh Kumar Tankala, Mobility Solution Architect & Lead Consultant, Wipro	EEE

7.	Introduction of Power Systems	29.12.2019	**135**	Sri.B.Durga Prasad, Associate Professor	EEE
8.	Introduction of Power Systems	29.12.2019	**135**	Dr. Visakha	EEE
9.	Awareness On Women Health Care	8/3/2018	250	Dr.Getha Vandana MD	MBA

Fig. Awareness On Women Health Care

SEMINARS FOR ACADEMIC YEAR 2017-18

SL.NO	NAME OF THE SEMINAR	DATE OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMEN
1.	Seminar on CORE JAVA	27-09-2017	1	BDPS COACHING CENTER AT GAJUWAKA	CSE
2.	FACTS	30-8-2017	110	The Institution of Engineers (INDIA) [IEI	EEE
3.	HVDC Transmission	22.02.2018	130	Dr.G.Saraswathi,Principal, University College of Engineering, JNTUK, Vizianagaram,	EEE
4.	Introduction of Robokart	22.02.2018		Dr.O.RamaMohanaRao, Chairman, IEI Vizag Local Center, Visakhapatnam	EEE

GUEST LECTURES FOR ACADEMIC YEAR 2019-20

S No	NAME OF THE WORKSHOP	DATE OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMENT
1.	Securities and Derivative Markets	17/8/19	150	P.Surya Teja BDO Karvy Pvt Ltd	MBA

Securities and Derivative Markets

2.	Control techniques for efficient D.C power management	21.9.2019	100	Prof. AmitPatro, IIT Kharagpur	EEE
3.	Introduction to Power Electronics	18-12-2020	80	Prof.SastryV.Vedula	EEE

GUEST LECTURES FOR ACADEMIC YEAR 2018-19

SL.NO	NAME OF THE WORKSHOP	DATE OF EVENT	NO OF PARTICIPANTS	RESOURCE PERSON OF THE EVENT	DEPARTMENT
1.	Electrical circuits & applications with Mat lab	21.9.2018	120	Dr.Sukumar Mishra, Professor from IIT Delhi	EEE
2.	Power generation Systems	29-12-2019	135	Sri.Rama Krishna Chebrolu, Additional General Manager, Hinduja Corporation Pvt Ltd	EEE

GUEST LECTURES FOR ACADEMIC YEAR 2017-18

SL.NO	NAME OF THE GUEST LECTURE	DATE OF EVENT	NO OF PARTICIPANTS	RESOURCE PERSON OF THE EVENT	DEPARTMENT
1	Importance of IoT in Marine Engineering(Guest Lecture)	11-01-2019	120	**By Mr.SK.Dubey**	CSE
2	Block Chain	26-12-	105	**By**	CSE

	Technology and its Applications(Guest Lecture)	2019.		**Mr. T. Siva Rama Krishna**	
3	Bridging The Gap Between The Students And Academia	26-12-2019.	87	**By Mr. T. Suresh**	CSE
4	Environmental Sustainability((Guest Lecture)	18-07-19	80	By Dr.D.Raja Kishore	CSE
5	Cyber security(Guest Lecture)	22-08-19	100	Mr.Manish Yadav	CSE
6	WAILS-2K17	25/8/2017	200	Smt.Madhuri	MBA
7	National Level Management Meet-PAGEANTRY-2K17	23/3/17	500	Smt.Shobha K S Rao IFS	MBA
8.	High voltage power system operation and instrument	29.8.2017	110	Sri.Manoj Kumar, Dy.General Manager, RINL-Visakhapatnam Steel Plant	EEE
9	Circuit Breakers & Relays	21-02-2018	130	Prof.I.Satyanarayana, Ex-Chairman, IEI Vizag Local Center, Visakhapatnam	EEE

OTHER EVENTS FOR ACADEMIC YEAR 2019-20					
S No	NAME OF THE EVENT	DATE(s)OF EVENT	NO OF PARTICIPANTS	HOST OF THE EVENT	DEPARTMENT
1.	Burst the bug(Competition)	14-09-2019 to 15-09-2019	1	VIIT	
2	ACM HACATHON	07-01-2019 to 09-01-2019	2	VIIT	
3	Paper Presentation in VISTA Tech Fest	2019	1	VIIT	
4	CODE BATTLE	21-09-2019	1	VIIT	
5	HACK AI on HEALTH by Medivally,world incubation hub	23-12-2019	**1**	AMTZ campus,AP,INDIA	CSE

6	Think and Run	14-09-2019 to 15-09-2019	1	VIIT	
7	DECODER	14-09-2019 to 15-09-2019	1	VIIT	
	INTERNSHIPS DURING ACADEMIC YEAR 2019-20				
SL.NO	**NAME OF THE STUDENT**	**NAME OF THE EVENT**	**DATE OF THE EVENT**	**RESOURCE OF THE EVENT**	**DEPARTMENT**
1.	KALAGA SAHITYA	Campus Ambassador	28-07-2019 to Present	Techfest IIT Bombay	CSE
2.		Campus Ambassador	04-08-2019 to Present	Abhuday IIT Bombay	CSE
3.		Campus Ambassador	29-10-2019 to Present	BITS PILANI Goa	CSE
4.	KALAGA SAHITYA	Campus Ambassador	03-01/2019 to Present	Coding Ninjas	CSE
		Web development	10-12-2019 to Present	Kalakar	CSE
5	KALEPU SREEJA	Artificial intelligence	15-07-2019 to 30-08-2019	HMI robo coupler engineering services	CSE
6	KAMMILI TANUJA	Artificial Intelligence	10-05-2019 to 10-06-2019	HMI robo coupler engineering services	CSE
7	KARAKA JYOSHNA	App Development	20-05-2019 to 20-06-2019	HMI robo coupler engineering services	CSE
8	KOLA LAVANYA	Web Application Development.	17-05-2019 to 06-06-2019	Atom Software Solutions	CSE
9.	KOVELA HEMA SRI	Artificial Intelligence	10-05-2019 to 12-06-2019	HMI Robo Coupler and Engineering services	CSE
10	KUNDRAPU DIVYA	Android development	15-05-2019 to 15-06-2019	Robot coupler and HMI	
11	LANKA SRUTHI	Campus Ambassador			
12	Vurukuti.Mou nica	Cyber security and ethical hacking	08-05-2019 to 02-06-2019	Tocmoc solutions	
13	VELAGA.DE VI LAKSHMI RAJESWARI	Cyber security and ethical hacking	One month-25-05-2019 to 25-06- 2019	Tocmoc solutions	
14	SAPPA SANDHYAR	Mobile Application	10-06-2019 to 10-07-2019	Engineers Hub	

	ANI	Development React native (Android IOS)			
15	SANAPATHI SRAVANI	Python	10-05-2019 to 10-06-2019	Engineering Gaints Robocoupler techno	
16	SAI RAKSHITHA PULAGALA	1.Artificial intelligence 2. Robotics and automation	1.13-05-2019 to 31-05-2019 2. 12-12-2019 to19-12-2019	1.smart bridge collaborated with IBM 2. Elite techno gropus	
17	RAMADALAI KEERTHI	Cyber Security And Ethical Hacking	20 days – 25-05-2019 to 15-06-2019	TOCMOC SOLUTIONS	
18	PUSAPATI REVATHI	IOT	15-11-2019 to 22-11-2019	Appleton Innovations	
19	PETAKAMSETTY SRI JYOTHI MEGHANA	Artificial Intelligence With Python & IBM Watson	13-05-2019 to 31-05-2019	Smart Bridge in Collaboration With IBM	
20	PENTAKOTA VENKATA SATYA LIKHITHA	Power Utility - New Service Connection Module	15-05-2019 to 12-06-2019	FLUENTGRID LIMITED (Formerly Phoenix IT Solutions Ltd.)	
21	PAMULA GAYATHRI	Artificial intelligence by hmi Services	15-05-2019 to 31-05-2019	HMI services **37** 17NM1A05C2 PARICHARLA LAHARI 15-05-2019 to 12-06-2019 Power Utility	
22	PALEM SUSHMA	WEB DEVELOPMENT	01-06-2019 to 13-07-2019	INTERNSHALA	
23	NUPUR DAS	1.Campus Ambassodor2.Web development	1.07-07-2019 to 07-12-2019 2.10-12-2019 to PRESENT	1. IIT BOMBAY 2. KALAKAR	
24	NUKALA SRUTHII	1. E- cell lucknow2. Intellect Browser's consortium3.indian road safety campaign	1.04-01-2020 to 04-03-2020 2.10-01-2020 to 10-03-2020 3.18-09-2019 to 18-02-2020	1.IIM Lucknow 2.NIT 3.IRSC- Indian road safety campaign	
25	MOJJADA UMA MAHESWARI	Data Science using Python	15-05-2019 to 30-06-2019	HMI Engineering Services Robo Coupler Solutions	
26.	G. Uma	Internship	19.08.2019	MAQ,HYDERABAD	

27	WAILS-2K19	12/12/2019	200	Ms.Neeraja Hari	MBA
28	National Level Management Meet-PAGEANTRY-2K19	4/4/2019	500	Sri.KVT Ramesh	MBA

National Level Management Meet-PAGEANTRY-2K19

OTHER EVENTS ORGANISED FOR ACADEMIC YEAR 2018-19

SL.NO	NAME OF THE EVENT	DATE OF EVENT	NO OF PARTICIPANTS	Resource Person OF THE EVENT	DEPARTMENT
1	CODE BATTLE	07-12-2018	4	VIIT	CSE
2	CODE WREK	14-09-2018	4	VIIT	
3	Think and Run	15-09-2018	4	VIIT	
4	HOUR OF CODE, CODE BATTLE, HACKARENA	2.14-09-2018 TO 15-09-2018 3. 06-12-2018 TO 08-12-2018			
5	BURST THE BUG	14-09-2018	**37**	VIIT	
6	CODE AVENGERS	14-09-2018	**8**	VIIT	
7	WAILS-2K18	14/3/2018	150	M.Gopi	MBA

OTHER EVENTS FOR ACADEMIC YEAR 2017-18

SL.NO	NAME OF THE EVENT	DATE OF EVENT	NO OF PARTICIPANTS	RESOURCE PERSON OF THE EVENT	DEPARTMENT
1	Paper Presentation	14-09-2017 to 15-09-2017	1	Visakhapatnam	
2	Internship on C#.NET	01-05-2017 to 28-05-2017	1	Sims E-Tech	
3.	Internship on Web designing	29-05-2017 to 29-07-2017	1	Silicon info systems	
5	PAPER	09-142017	1	VIIT	

	PRESENTATION				CSE
6.	Code Wrek	14-09-2017 to 15-09-2017	3	VIIT	
7.	**Quiz (COMPETITION0**	14-09-2017	7	VIIT	

I) **Extra-Curricular activities:**

Sports, volunteer work, summer activities, club and organization, annual days, fresher's, associations, technical fests, cultural activities, Rangoli, games (indoor and outdoor) etc.

Table: List of Extra-Curricular activities organized

FOR ACADEMIC YEAR 2019-20						
S No	**STUDENT NAME**	**DATE(S)OF THE EVENT**	**NAME OF THE EVENT**	**POSITION HELD/PARTICIPATION**	**CONDUCTED BY**	**BRANCH**
1	NeeliKoti Siva Sai Priyanka	14-09-2019 to 15-09-2019	Burst the bug	Participation	VIIT	CSE
2	A.LAKSHMI	07-01-2019 to 09-01-2019	ACM HACATHON	Participation	VIIT	CSE
3	A.LAKSHMI	21-09-2019	CODE BATTLE	Participated	VIIT	CSE
4	BASANA HARSHINI	14-09-2019 to 15-09-2019	think and run	Participated	VIIT	CSE
5	BASANA HARSHINI	26-12-2019 to 08-12-2019	ACM hackathon	Participated	VIIT	CSE
6	GEDELA ANANDA BHAVANI	14-09-2019 to 15-09-2019	DECODER	Participated	VIIT	CSE
7	JONNAKUTI SAI HARSHITHA	2019	Paper Presentation in VISTA Tech Fest	First Prize	VIIT	CSE
8	Nannapaneni Sai Sandhya	23-12-2019	HACK AI on HEALTH by Medially, world incubation hub	4th prize	AMTZ campus, AP,INDIA	CSE
9.	**College**	21-06-2019	**TheInternational Yoga Day**	Participated	VIEW Campus	IT
10.	2^{ND},3^{RD},4^{TH} IT	25-08-2019	Eco-Rally on	Participated	VIEW	IT

	STUDENTS		**"Save the Drop"** for Conservation of Ground water			
11.	2^{ND},3^{RD},4^{TH} IT STUDENTS	05-09-2019	"**Teachers Day**".	Participated	View	IT
12	K.Vidyalatha and P.Mounika	March 2019	ECLORE 2k19 (HR Event)	First Prize	JNTU K	MBA
13	P.Kavya and M.Sri Lakshmi	March 2019	ECLORE 2k19 (Finance Event)	Second Prize	JNTU K	MBA
14	Ms. Shalini	29th February 2019	PRABANDHAN (Cultural event)	First prize	BITS	MBA

FOR ACADEMIC YEAR 2018-19						
SL. NO	**STUDENT NAME**	**DATE(S)OF THE COMPETITION**	**NAME OF THE COMPETITION**	**POSITION HELD/PARTICIPATION**	**NAME OF THE INSTITUTION**	
1.	Balusucharishma nagasaisarada	15-02-201 to 17-02-2018	Running Badminton	Participated	VIIT	
2	Chilakapalli Sai Likhita	15-02-201 to 17-02-2018	Running Badminton	Participated	VIIT	
3.	PULIDINDI KRISHNA PRIYA	14-09-18 to 15-09-18	Scrap and Crap (VISTA-2K18)	2nd prize	VIIT	
4.	VishnumolakalaVijaya Lakshmi	06-01-2018 to 07-01-2018	Badminton	participated	VIIT	
5.	CH.PRAVALLIKA	07-08-2018	MISS DIVA	participated	VIZAG	
6.	VishnumolakalaVijaya	06-01-2018 to 07-01-2018	Badminton	participated	VIIT	

	Lakshmi					
7.	CH.PRAVALLIKA	07-08-2018	MISS DIVA	participated	Vizag	
8.	GAVVA RANI	01-03-2018	ATHLETICS - RUNNING (400M)	participated	VIIT	
9.	Ms.Geetha	March 2018	Quiz	First Prize	Avanthi Group of Institutions	
10	Ms.Sri letha	March 2018	Photography	First Prize	Gitam University	
11	B.Jayasri	February 2018	Business Plan	Second Prize	GIET	
12	K.Vinayasri	November 2018	HR Event	Second Prize	VIIT	

FOR ACADEMIC YEAR 2017-18						
SL. NO	NAME OF THE STUDENT	**DATE(S)OF THE COMPETITION**	**NAME OF THE COMPETITION**	**POSITION HELD/PARTICIPATION**	**NAME OF THE INSTITUTION**	
1	CH.Alekya E.Deepika K.Caturya K.S.L.Prasanna K.Bhavana	14-09-2017 to 15-09-2017	Best from waste Devil's hand	participation	VISTA(VIIT)	CSE
2	K.RAGA DEEPIKA K.DIVYA SREE R.SATHVIKA M.KASTURI	14-09-2017	DEVILS HAND	participation	VIIT	CSE
3	C.SAI RAKSHITHA G.PRASHIPTA	01-09-2017	MINI MILLITIA	participation	VIIT	CSE

	K.KATYAYINI					
4	G.NITHISHA	01-09-2017	TREASURE HUNT	participation	VIIT	CSE
5	Ms. R. Gayatri & P. Mounika	March 2017	Srujana Visakha Fest 2K17(Quiz)	First Prize	VishakaTechnical Campus	MBA
6	Ms.A.Hema and Ms.S.Deepthi	February 2017	Paper Presentation	First Prize	Avanthi Group of Institutions	MBA
7	N.Mounika	March 2017	Srujana Visakha Fest 2K17	Second prize	VishakaTechnical Campus	MBA
8	K.Sravani	April 2017	PRABANDHAN (Finance event)	Second Prize	BITS	MBA

Sport Events:

JNTUK INTER UNIVERSITY AND ALL INDIA INTER UNIVERSITY SELECTED PLAYERS LIST			
S.No.	**Name of the event**	**All India inter university , Year, Venue**	**No. of students participated/Selected**
1.	KHO-KHO	Mysore university, Mysore from 2nd to 10th oct 2017	3
2.	KHO-KHO	Mangalore University Mangalagangaothri from 14th to 17th oct 2018	3
3.	NET BALL	Tamilnadu college of physical education from 25th to 28th Feb 2019	1
4.	CRICKET	Sri Venkataeswara University ,Tirupati from 25th to 28th Dec 2019	1 TEAM
5.	VOLLEY BALL	SRM University Chennai from 6th to 10th Dec 2019	1 TEAM
6.	TABLE-TENNIS	K.L.University Guntur from 11th to 14th Dec 2019	1
7.	NET BALL	ANNAMALAI UNIVERSITY chidambaram 13th to 16th Feb 2020	2

Sl.no	**Name of the Event**	**Academic year**	**Venue**	**No of Participants**
1.	Throw ball	2020	View(Yuvtarang)	19
2.	Kho-kho	2020	View(Yuvtarang)	12
3.	Running(100mts,400mts)	2020	View(Yuvtarang)	2
4.	Throw ball	2020	Vignan Mahotsav	13
5.	Running(100mts,400mts)	2020	Vignan Mahotsav	4
6.	Throw ball	2019	View(Yuvtarang)	42

7.	TENNI-KOIT SINGLES	2019	View(Yuvtarang)	2
8.	Chess	2019	View(Yuvtarang)	2
9.	Running(100mts,200mts)	2019	View(Yuvtarang)	5
10.	SHOT-PUT	2019	View(Yuvtarang)	1
11.	Throw ball	2018	Vignan University	26

12.	Relay 4x100 mts	2018	Vignan University	4
13.	Kabaddi	2018	Vignan University	14
14.	Running(100MTS)	2018	Vignan University	3
15.	Running(200MTS)	2018	Vignan University	3
16.	Running(400MTS)	2018	Vignan University	3
17.	Running(1500 mts)	2018	Vignan University	1
18.	Relay 4x100 mts	2018	Vignan University	4
19.	Kho-kho	2018	Vignan University	10

20.	Throw ball	2017	View(Yuvtarang)	9
21.	Kho-kho	2017	View(Yuvtarang)	10
22.	TENNI-KOIT	2017	View(Yuvtarang)	1

Student Support Systems :: Attainments Evaluation

Cumulatively for all the modules in student support systems the attainments were set and evaluated for PO's, Mission of the Institute and Vision of the Institute as follows:

Table B.9.1. Course/Module vs PO Matrix of courses in Student Support Systems:

S No	Facility	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	Self-Learning	Web-based Learning	3	3	3	2	2					2		3
		Professional Bodies/Clubs	3	3	3	3	3	3	3	3	3	3	3	3
		Seminars & Workshops	3	3	3	3	3	3	3	3	3	3	3	3
		Industrial Visits						3	3	3	3	3	3	3
		Certification Courses	3	3	3	3	3							
		Guest Lectures	3	3	2	2	1							
		MOOC's	3	3	3	2	2					1		
2	Pre-Placement Training	CRT	3	3	3	3	3	3	3	3	3	3	3	3
		CST	3	3	3	3	3	3	3	3	3	3	3	3
		Professional Internships	3	3	3	3	3	3	3	3	3	3	3	3
3	Entrepreneurship and incubation	Startups	3	3	3	3	3	3	3	3	3	3	3	3
		Product Developments	3	3	3	3	3	3	3	3	3	3	3	3
4	Cocurricular activities	TECHKRITHI CLUB	3	3	3	3	3	3	3	3	3	3	3	3
		Academic clubs	3	3	3	3	3	3	3	3	3	3	3	3
		Activity clubs	3	3	3	3	3	3	3	3	3	3	3	3
		Shristi club	3	3	3	3	3	3	3	3	3	3	3	3
		NAVITAS club	3	3	3	3	3	3	3	3	3	3	3	3
5	Extra-Curricular Activities	Rythms club								1	2	3	2	2
		Health club						3	3	2	2	1		
		Sports club	1	1	1	1	2	1	2	3	2	3	2	2
		Eco-club						3	3	3	2	1	2	3
		SAMSKRITHI CLUB						3		3	1	1		
		Socio Club						3	3	3	2	1	1	
Average Attainment			**2.88**	**2.88**	**2.82**	**2.71**	**2.71**	**2.89**	**2.94**	**2.84**	**2.63**	**2.48**	**2.71**	**2.88**

Table B.9.2: Course/Module vs PO Attainments of courses in Student Support Systems:

S No	Facility	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	Self-Learning	Web-based Learning	2.79	2.79	2.79	1.86	1.86	0	0	0	0	1.86	0	2.79
		Professional Bodies/Clubs	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
		Seminars & Workshops	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62
		Industrial Visits	0	0	0	0	0	2.59	2.59	2.59	2.59	2.59	2.59	2.59
		Certification Courses	2.81	2.81	2.81	2.81	2.81	0	0	0	0	0	0	0
		Guest Lectures	2.54	2.54	1.7	1.7	0.85	0	0	0	0	0	0	0
		MOOC's	2.64	2.64	2.64	1.76	1.76	0	0	0	0	0.88	0	0
2	Pre-Placement Training	CRT	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
		CST	3	3	3	3	3	3	3	3	3	3	3	3
		Professional Internships	3	3	3	3	3	3	3	3	3	3	3	3
3	Entrepreneurship and incubation	Startups	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
		Product Developments	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85
4	Cocurricular activities	TECHKRITHI CLUB	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81
		Academic clubs	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
		Activity clubs	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91
		Shristi club	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91
		NAVITAS club	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69
5	Extra-Curricular Activities	Rythms club	0	0	0	0	0	0	0	0.82	1.64	2.47	1.64	1.64
		Health club	0	0	0	0	0	2.68	2.68	1.78	1.78	0.89	0	0
		Sports club	0.78	0.78	0.78	0.78	1.57	0.78	1.57	2.35	1.57	2.35	1.57	1.57
		Eco-club	0	0	0	0	0	2.68	2.68	2.68	1.79	0.89	1.79	2.68
		SAMSKRITHI CLUB	0	0	0	0	0	2.72	0	2.72	0.91	0.91	0	0
		Socio Club	0	0	0	0	0	2.51	2.51	2.51	1.68	0.84	0.84	0
Student Support Systems			**2.68**	**2.68**	**2.63**	**2.52**	**2.52**	**2.66**	**2.7**	**2.6**	**2.41**	**2.27**	**2.49**	**2.66**
% Attainment			**92.8**	**92.8**	**93**	**93.1**	**93**	**92.1**	**91.9**	**91.5**	**91.8**	**91.5**	**92.1**	**92.2**

Table B.9.3: Course/Module vs Institute Mission & Institute Vision Matrix of courses in Student Support Systems:

S No	Facility	Course	**M1.** To empower women engineers through innovative teaching learning practices.	**M2**. To encourage higher education and research with well-equipped laboratories.	**M3**. To promote entrepreneurship through creativity and innovation.	**M4**. To promote environmental sustainability and inculcate ethical, emotional and social consciousness.	**Vision: To be a leading institution of women empowerment producing internationally accepted professionals with psychological strength, emotional balance and ethical values.**
1	Self-Learning	Web-based Learning	3				3
		Professional Bodies/Clubs	3	3		1	3
		Seminars & Workshops	3			1	3
		Industrial Visits	3	3		2	3
		Certification Courses	3				3
		Guest Lectures	3				3
		MOOC's	3				3
2	Pre-Placement Training	CRT	3			1	3
		CST	3			1	3
		Professional Internships	3	3	1	3	3
3	Entrepreneurship and incubation	Startups	3	3	3	3	3
		Product Developments	3	3	3	3	3
4	Cocurricular activities	TECHKRITHI CLUB	3	3	2	3	3
		Academic clubs	3	3	2	3	3
		Activity clubs	3	3	1	3	3
		Shristi club	3	3	2	3	3
		NAVITAS club	3	3	2	3	3
5	Extra-Curricular Activities	Rythms club				2	2
		Health club				3	1
		Sports club				2	1
		Eco-club				3	1
		SAMSKRITHI				1	1

		CLUB					
		Socio Club				3	1
	Student Support Systems		3	3	2	2.32	2.52

Table B.9.4: Course/Module vs Institute Mission & Institute Vision Attainments of courses in Student Support Systems:

S No	Facility	Course	**M1.** To empower women engineers through innovative teaching learning practices.	**M2**. To encourage higher education and research with well-equipped laboratories.	**M3**. To promote entrepreneurship through creativity and innovation.	**M4**. To promote environmental sustainability and inculcate ethical, emotional and social consciousness.	**Vision: To be a leading institution of women empowerment producing internationally accepted professionals with psychological strength, emotional balance and ethical values.**
1	Self-Learning	Web-based Learning	2.79	0.00	0.00	0.00	2.79
		Professional Bodies/Clubs	2.68	2.68	0.00	0.89	2.68
		Seminars & Workshops	2.62	0.00	0.00	0.87	2.62
		Industrial Visits	2.59	2.59	0.00	1.73	2.59
		Certification Courses	2.81	0.00	0.00	0.00	2.81
		Guest Lectures	2.54	0.00	0.00	0.00	2.54
		MOOC's	2.64	0.00	0.00	0.00	2.64
2	Pre-Placement Training	CRT	2.97	0.00	0.00	0.99	2.97
		CST	3.00	0.00	0.00	1.00	3.00
		Professional Internships	3.00	3.00	1.00	3.00	3.00
3	Entrepreneurship and incubation	Startups	2.70	2.70	2.70	2.70	2.70
		Product Developments	2.85	2.85	2.85	2.85	2.85
4	Cocurricular activities	TECHKRITHI CLUB	2.81	2.81	1.88	2.81	2.81
		Academic clubs	2.78	2.78	1.85	2.78	2.78

		Activity clubs	2.91	2.91	0.97	2.91	2.91
		Shristi club	2.91	2.91	1.94	2.91	2.91
		NAVITAS club	2.69	2.69	1.80	2.69	2.69
5	Extra-Curricular Activities	Rythms club	0.00	0.00	0.00	1.64	1.64
		Health club	0.00	0.00	0.00	2.68	0.89
		Sports club	0.00	0.00	0.00	1.57	0.78
		Eco-club	0.00	0.00	0.00	2.68	0.89
		SAMSKRITHI CLUB	0.00	0.00	0.00	0.91	0.91
		Socio Club	0.00	0.00	0.00	2.51	0.84
Student Support Systems			2.78	2.79	1.87	2.11	2.32
% Attainment			92.8	93.1	93.6	91.2	**91.8**

Criterion 10	Governance, Institutional Support and Financial Resources	120 M

10.1. ORGANIZATION, GOVERNANCE AND TRANSPARENCY (40)

10.1.1. State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

VISION OF THE INSTITUTE

To be a leading institution of women empowerment producing internationally accepted professionals with psychological strength, emotional balance and ethical values.

MISSION OF THE INSTITUTE

M1: To empower women engineers through innovative teaching learning practices.

M2: To encourage higher education and research with well-equipped laboratories.

M3: To promote entrepreneurship through creativity and innovation.

M4: To promote environmental sustainability and inculcate ethical, emotional and social consciousness.

Appropriateness/Relevance of the Statements:

There has been an emerging need in the local society for providing an exclusive time and space for girls in technical education. Addressing this socio and economic concerns of the society, The Institute is established with total women empowerment as its chief motto. The aim is to provide competent women technical power keeping the demands of the industry along with providing a robust economic boost to the family in the form of a technically educated and trained woman professional. Apart from these aims the college has kept its vision on simultaneously equipping the girl students physically fit, psychologically strong to face the challenges in the society.

The activities are planned in such a way that the girl gets transformed into a competent and complete woman with technical expertise, self-reliance, psychological strength, emotional balance, ethical values and social consciousness. Setting highest ethical standards at all aspects of college activity the girl is imbued with right kind of moral attitude. Overall, the Vision and Mission statements are to transform the girl into a complete woman through the comprehensive cycle of change at the Institute.

10.1.2. Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Procedures, Recruitment and Promotional Policies (10)

(List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed. The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students)

10.1.2 (A) GOVERNING BODY

The institution has a well defined and structured governance system headed by the governing body which is an apex committee that oversees the overall development and continuous growth of the institution in lines with the established vision. The Governing body is comprised of 15 eminent people from industry and academia to bring in the necessary balance. The term of the members, except the ex-officio member, shall be three years.

Functions of Governing Body:

1. To monitor the academic, student, faculty development and other related activities of the college.
2. To approve the recommendations of the Staff Selection Committee.
3. To consider for implementation the important communications, policy decisions received from the University, Government, AICTE, etc.
4. To consider the recommendations of the Planning and Monitoring board of the college from implementation.
5. To prepare and approve the annual budget of the college.

Frequency of Meeting and Quorum:

The Governing Council shall meet at least twice a year. The quorum for the meeting shall be 2/3 of the total members of the Governing Council.

Composition of the Governing Body:

Table 10.1 Composition of the Governing Body

Sl. No.	Name of the Person	Designation	Category	Nature of Appointment
1	Dr V.Bhujanga Rao, ISRO Chair Professor, National Institute of Advances Studies, IISc Campus, Bangalore. Former DG-DRDO-New Delhi. Former Director-NSTL Vizag	Chairman	Trust/Management	Trust/ Management as per the constitution of By-Laws with the chairman or president or Director as the chair person (5 Members)
2	Dr. L. Rathaiah President & Correspondent, Lavu Educational Society, Vignan Group	Member	Trust/Management	
3	Padma Bhushan Dr. Y Lakshmi Prasad Former M.P, Director-Indian Culture Centre, Consulate General of India, Canada	Member	Trust/Management	
4	Sri N.Srikanth Executive Director, Vignan Group of Educational Institutions, Visakhapatnam	Member	Trust/Management	
5	Dr.Archana Sharma Outstanding Scientist Head, PP & EMD, BARC, Mumbai.	Member	Trust/Management	
6	Dr. P. V. G. D. Prasad Reddy Former Registrar, Professor, Department of Computer Science & Systems Engineering, Andhra University, Visakhapatnam	Member	Academician	Neighboring University
7	Dr. B.Subba Rao Programe Director, SAMEER-Centre for Electromagnetic Environmental Effects, Ministry of E&IT, Visakhapatnam	Member	Industrialist	Nominated by Management
8	Mr.Venkata Rayulu Bonam Delivery Project Executive IBM India (P) Ltd. Hyderabad	Member	Industrialist	Nominated by Management

9	Dr.Rishi Verma Scientist-G, PP & EMD, PEB-1, Bhabha Atomic Research Centre (BARC), Gandivanipalem, Atchutapuram (V), Visakhapatnam.	Member	Industrialist	Nominated by Management
10	Mr.Suresh Kumar Tankala Lead Consultant, Wipro Limited, Visakhapatnam	Member	Industrialist	Nominated by Management
11	Smt.P.Aruna Kumari Asst. Professor, Dept. of Computer Science & Engineering UCE, JNTUK, Vizianagaram	Member	University (JNTUK) Nominee	Nominated by the University
12	Mr. Bala Murugan South Regional Officer, AICTE	Member	AICTE Nominee	Nominated by the AICTE
13	Mr.B.K.Surya Prakash Principal, Govt. Polytechnic College, Anakapalli, VSKP	Member	State Government Nominee	Nominated by the State Government
14	Dr.J.Sudhakar Principal & Professor, Dept. of ECE, VIEW, Visakhapatnam	Member Secretary	Principal	Ex-officio
15	Prof.A.Sesha Rao Sr. Professor, Department of CSE, VIEW, Visakhapatnam	Member	Faculty Representative	Nominated by the Principal

Details of Governing Council Meetings

Academic Year	No. of Meetings Conducted	Date of Meeting held	No. of Members attended
2017-18	2	06.06.2017	12
		22.12.2017	11
2018-19	2	06.09.2018	11
		13.04.2019	12
2019-20	1	12.11.2019	12
2019-20	1	03.04.2020	Cancelled due to Covid-19

Minutes of the meetings and action-taken reports:

Minutes of the 19th meeting of Board of Governors
Vignan's Institute of Engineering for Women
Held on June 6, 2017 at 10.00 a.m. at Board Room, VIEW, Visakhapatnam

Members Present

1	Dr. L. Rathaiah	Vice-Chairman
2	Padma Bhushan Sri.Dr. Y Lakshmi Prasad	Member
3	Sri K Pavan Krishna	Member
4	Dr. V. Vizia Saradhi	Member
5	Sri.Venkata Rayulu Bonam	Member
6	Prof. P. V. G. D. Prasad Reddy	Member
7	Mr.Srikanth Nandigam	Member
8	Dr. B.Subba Rao	Member
9	Dr. G.Madhavi	Member
10	Mr.B.K.Surya Prakash	Member
11	Dr.S.M.Murali Krishna, I/c Principal	Member Secretary
12	Prof.A.Sesha Rao	Member

The following members have requested for leave of absence expressed their inability to attend meeting.

1. Dr.CD Malleswar
2. Sri.R.Bala Marugan

At the outset Dr.L.Rathaiah, Vice-Chairman welcomed all the members of Governing Council to the Meeting. He expressed confidence in getting the cooperation and support from other members of the Governing Body in effective discharge of his duties. He gave the opening remarks and spoke about important developments that took place in the College, construction of new academic block, New Canteen, placement record, overall results of the college and appreciate the faculty members for their efforts in achieving the excellent results in UG and PG courses.

The Vice-Chairman requested **I/c Principal** to present the agenda notes for discussion. I/c. Principal welcomed Sri.B.K.Surya Prakash, who has been recently nominated by the State Government as Govt. nominee to the Governing Body.

The following items are discussed and the corresponding resolutions are adopted:

Item-1 Confirmation of the minutes of the earlier meeting held on 05.03.2016

The minutes of the meeting of the Governing Body held on 05.03.2016 were circulated to all the members for their comments. As there were no comments, it was declared that the minutes were confirmed.

Resolution No. VIEW/GBM/4/2017/1

The Governing Body resolved to approve the minutes of the meeting held on 5th of March, 2016.

Item-2 Report by the Principal on the progress of the College during the Academic Year 2016-17

Principal gave a Power point presentation on various activities of the college since the last Governing Body meeting. Copy of the same was perused by the members and approved.

Resolution No. VIEW/GBM/4/2017/2.1

The Governing Body resolved to express its satisfaction upon the admissions into B.Tech., and M.B.A. for the academic year 2016-17 under the prevailing conditions, and suggested to take necessary steps for improvement of admissions in M.Tech.

Resolution No. VIEW/GBM/4/2017/2.2

The Governing Body reviewed the results of UG and PG programmes and expressed its happiness over the performance.

Resolution No. VIEW/GBM/4/2017/2.3

The Governing Body noted and placed on record its happiness about the University First Place in JNTUK first year results with 71.15 per cent. The Governing Body is pleased to note that 94 per cent of 365 students are achieved first class with distinction.

Resolution No. VIEW/GBM/4/2017/2.4

The Governing Body is pleased to note that 273 out of 315 eligible students are placed as on date in different organizations during the academic year 2016-17. The Governing Body noted with great satisfaction over the performance of two students excelled in Microsoft with annual package of 9.78Lakhs and one student excelled in Juspay with annual package of 12Lakhs.

Resolution No. VIEW/GBM/4/2017/2.5

The Governing Body is overwhelmed with happiness for achieving 3 Prathibha Awards from JNTUK which were presented in the academic year 2016-17 for the achievement of the academic year 2015-16

Resolution No. VIEW/GBM/4/2017/2.6

The Governing Body recognized the efforts of the faculty in getting research projects worth Rs.32.58 lakhs from Science and Engineering Research Board (SERB), Department of Science and Technology (DST) and expressed happiness over the progressive mind-set of the faculty.

Resolution No. VIEW/GBM/4/2017/2.7

The Governing Body noted with pleasure that 4 faculty are awarded Ph.D. It is also noted that 7 faculty members submitted their Ph.D. theses and 18 faculty members pursuing Ph.D. The governing Body congratulated their effort and promised continued support to faculty in such efforts.

Resolution No. VIEW/GBM/4/2017/2.8

The Governing Body while expressing its satisfaction about the publications by the faculty suggested the administration to encourage the faculty for more publications in reputed journals and conferences.

Resolution No. VIEW/GBM/4/2017/2.9

I. The Governing Body complimented the staff for conducting Training Programmes, Workshops etc. for faculty and students.
II. The Governing Body noted that nearly 30 faculty of the College attended short-term courses, training programmes, workshops, etc. organized by other Institutions which include IIITs/NITs/IITs.

Resolution No. VIEW/GBM/4/2017/2.10

The Governing Body expressed its happiness about revision of pay structure of faculty as per the recommendations of 6th Pay Commission of AICTE.

Resolution No. VIEW/GBM/4/2017/2.11

The governing Body expressed its satisfaction that the students are actively participating in co-curricular, sports, social, ethical, cultural and other activities. Also expressed their happiness for achieving first place in JNTUK Central Zone Kho-Kho completion.

Resolution No. VIEW/GBM/4/2017/2.12

The Governing Body was elated to know that a number of distinguished personalities visited the College and made delightful comments about the College.

Item-3 Ratification of selected faculty and approval for fresh recruitment.

A report on faculty selections made and requirement of faculty for the academic year 2016-17 is circulated to the members of the Governing Body. After perusal of the report by the members, the following resolutions are made:

Resolution No. VIEW/GBM/4/2017/3.1

i. The Governing Body noted with satisfaction that the services of 84 existing faculty are ratified, 5 faculty are selected for higher position and 12 new faculty are selected through the interviews conducted by JNTU-Kakinda.

ii. The Governing Body resolved to convey it's thanks to the JNT University-Kakinada for arranging faculty selections/ratification of services of existing faculty

Resolution No. VIEW/GBM/4/2017/3.2

The Governing Body noted that 18 new faculty joined during this period through University selections and College level selections.

Resolution No. VIEW/GBM/4/2017/3.3

The Governing Body authorized the Chairman, Governing Body to recruit the additional faculty required.

Item-4 Income and expenditure status for the financial year 2016-17

The Principal sought permission from the members of the Governing Body to circulate the income and expenditure for the financial year 2016-17 later as the accounts are to be finalized.

Resolution No. VIEW/GBM/4/2017/4.1

The Governing Body resolved to permit the Principal to circulate the income and expenditure under autonomous status for the financial year 2016-17 later as the accounts are to be finalized.

Item-5 Budget for the financial year 2017-18

The proposed budget for the financial year 2017-18 as prepared by the Finance Committee is circulated to the members.

Resolution No. VIEW/GBM/4/2017/5.1

The Governing Body approved the proposed budget for the Academic year 2017-18 as prepared by the Finance Committee.

Item-6 Proposals for the Approval of Governing Body

Resolution No. VIEW/GBM/4/2017/6.1

The Governing Body resolved to approved the proposal of NAAC Accreditation application process followed by permanent affiliation and 2(f) and 12(b) and suggested to to take necessary steps to apply for NAAC Accreditation.

Resolution No. VIEW/GBM/4/2017/6.2

The Governing Body resolved to approved the proposal of Recruitment of Staff with Ph.D to maintain at least two doctorates in each Department.

Resolution No. VIEW/GBM/4/2017/6.3

Approval is accorded for Introduction of Merit Scholarship Scheme to meritorious students of outstanding performance.

Resolution No. VIEW/GBM/4/2017/6.4

The Governing Body approved the proposal of Implementation of R&D policy To create a conducive platform for encouraging the faculty to undertake cutting-edge research and to produce quality output.

Resolution No. VIEW/GBM/4/2017/6.5

Approval is accorded for adding the following amendments in Leave Policy from the academic year 2017-18 to all permanent employees.

a) Medical leaves
b) Paternity leaves
c) Special casual leave

Resolution No. VIEW/GBM/4/2017/6.6

The Governing Body approved the proposal of the following infrastructure additions for the academic year 2017-18 and approved the required funds for:

a) Renovations to Seminar Hall
b) Completion of Construction of a Canteen building
c) Construction of Third floor C-Block or separate Block for I B.Tech
d) Construction of Open Auditorium with sponsorship

Resolution No. VIEW/GBM/4/2017/6.7

Approval is accorded to Organise International Conference on "**Mathematical Applications in Computing and Statistics"** by department of Basic Science and Humanities in the academic year 2017-18 and approved the required funds.

Resolution No. VIEW/GBM/4/2017/6.8

Approval is accorded to finance committee, non-statutory committees i.e. Planning and Evaluation Committee (PEC), Grievance appeal Committee (GAC), Examination Committee (EC), Admission Committee (AC), Library Committee (LC), Student Welfare Committee (SWC), Extra-curricular Activities Committee (ECAC), Academic Audit Committee (AAC) and other committees i.e. College Management Committee (CMC), Policy Perceptive Committee (PPC), College Development Committee (CDC), PG-Committee (PGC), UG Committee (UGC), Department Development Committee (DDC), Hostel Management Committee (HMC), Anti-Ragging Committee (ARC), Purchase Committee (PC), Research Committee (RC), Training & Placement Committee (T&PC), Faculty Recruitment Committee (FRC) and Women Protection/Empowerment Committee (WPEC).

Minutes of the 20th meeting of Board of Governors

Vignan's Institute of Engineering for Women

Held on **December 22, 2017** at 10.00 a.m. at Board Room, VIEW, Visakhapatnam

Members Present

1	Dr. L. Rathaiah	Vice-Chairman
2	Padma Bhushan Sri.Dr. Y Lakshmi Prasad	Member
3	Sri K Pavan Krishna	Member
4	Sri.Venkata Rayulu Bonam	Member
5	Prof. P. V. G. D. Prasad Reddy	Member
6	Mr.Srikanth Nandigam	Member
7	Dr. B.Subba Rao	Member
8	Dr. G.Madhavi	Member
9	Mr.B.K.Surya Prakash	Member
10	Dr.J.Sudhakar	Member Secretary
11	Prof.A.Sesha Rao	Member

The following members have requested for leave of absence expressed their inability to attend meeting.

1. Dr.C.D.Malleswar
2. Sri.R.Bala Murugan

At the outset Dr.L.Rathaiah, Vice-Chairman welcomed all the members of Governing Council to the Meeting. He expressed confidence in getting the cooperation and support from other members of the Governing Body in effective discharge of his duties.

The Vice-Chairman requested **Principal** to present the agenda notes for discussion. Principal welcomed all the members of Governing Council to the Meeting and convey his gratitude for attending the meeting.

The following items are discussed and the corresponding resolutions are adopted:

Item-1 Confirmation of the minutes of the earlier meeting held on 06.06.2017

The minutes of the meeting of the Governing Body held on 06.06.2017 were circulated to all the members for their comments. As there were no comments, it was declared that the minutes were confirmed.

Item-2 Report by the Principal on the progress of the College during the Academic Year 2017-18 (Upto I Semester)

Resolution No. VIEW/GBM/4/2017(2)/2.1

The Governing Body resolved to express its satisfaction upon the admissions into B.Tech., and M.B.A. for the academic year 2017-18 under the prevailing conditions, and suggested to take necessary steps for improvement of admissions in M.Tech.

Resolution No. VIEW/GBM/4/2017(2)/2.2

The Governing body complimented about the admission for the academic year 2017-18 recorded as 80.3% of total intake where as in the academic year 2016-17 it was 78.9%.

Resolution No. VIEW/GBM/4/2017(2)/2.3

The Governing body appreciated for achieving 97.24% in B.Tech IV Year for the academic year 2016-17.

Resolution No. VIEW/GBM/4/2017(2)/2.4

The Governing Body recognized the efforts of the faculty for publishing more than 40 papers in reputed journals, out of which more than 20 papers are Scopus cited & H-indexed.

Resolution No. VIEW/GBM/4/2017(2)/2.5

The Governing Body expressed its happiness about revision of pay structure and increments to staff as per the recommendations of 6th Pay Commission of AICTE.

Resolution No. VIEW/GBM/4/2017/2.6

The governing Body expressed its satisfaction that the students are actively participating in co-curricular, sports, social, ethical, cultural and other activities.

Item-3 Ratification of selected faculty and approval for fresh recruitment.

Resolution No. VIEW/GBM/4/2017(2)/3.1

The Governing Body is overwhelmed with happiness for about 71% of faculty were ratified by JNTUK till date.

Resolution No. VIEW/GBM/4/2017/3.2

The Governing Body resolved to convey its thanks to the JNT University-Kakinada for arranging faculty selections/ratification of services of existing faculty

Item-4 Proposals for the Approval of Governing Body

Resolution No. VIEW/GBM/4/2017(2)/4.1

The Governing Body resolved to approved the proposal of NAAC Accreditation application process and suggested to to take necessary steps to apply for NAAC Accreditation.

Resolution No. VIEW/GBM/4/2017(2)/4.2

Approval is accorded for Introduction of Means Scholarship Scheme to Below Poverty Line (BPL) students to give financial support.

Resolution No. VIEW/GBM/4/2017(2)/4.3

The Governing Body approved the proposal of the following infrastructure additions for the academic year 2017-18 and approved the required funds for:

e) Renovations to Seminar Hall
f) Completion of Construction of a Canteen building
g) Construction of fourth floor for additional class rooms for B.Tech & M.B.A
h) Construction of Open Auditorium with sponsorship

Resolution No. VIEW/GBM/4/2017/4.4

Approval is accorded to plan for construction of women hostel in Campus and arch at main road, Portico at main entrance.

Resolution No. VIEW/GBM/4/2017/4.5

4.5.1 Approval is accorded for applying 2(f) and 12(b) status through an indemnity bond and it is resolved that every amount of grant that will be given by the commission to the college shall when received by the college solely be used for the benefit and purposes of the college in accordance with the terms and conditions of the grant and not for any other purpose or any other institution.

4.5.2 The Institute shall furnish to the commission the balance sheet of the Institution every year along with the annual audited accounts of the college.

4.5.2 The institute shall fulfil any other terms and condition laid down in indemnity bond.

Resolution No. VIEW/GBM/4/2017/4.6

Approved is accorded to recruit Doctoral staff in accordance with the increase in student intake in ECE & CSE.

Resolution No. VIEW/GBM/4/2017/4.7

Approval is accorded to implement Medical Leaves, Paternity Leaves and Special Casual Leaves and R&D incentives as per the R&D policy.

Minutes of the 21st meeting of Board of Governors

Vignan's Institute of Engineering for Women

Held on September 6, 2018 at 10.00 a.m. at Board Room, VIEW, Visakhapatnam

Members Present

1	Dr. CD Malleswar	Chairman
2	Dr. L. Rathaiah	Vice-Chairman
3	Sri K Pavan Krishna	Member
4	Sri.Venkata Rayulu Bonam	Member
5	Prof. P. V. G. D. Prasad Reddy	Member
6	Mr.Srikanth Nandigam	Member
7	Dr. B.Subba Rao	Member
8	Smt.P.Aruna Kumari	Member
9	Mr.B.K.Surya Prakash	Member
10	Dr.J.Sudhakar	Member Secretary

11	Prof.A.Sesha Rao	Member

The following members have requested for leave of absence expressed their inability to attend meeting.

Sl.No	Name of the person	Designation
1.	Padma Bhushan Sri.Dr.Y.L.Prasad	Member
2.	Sr.R.Bala Murugan	Member
3.	Dr.V.Vizia Saradhi	Member

The meeting was initiated with the welcome note by Chairman of Governing Body of VIEW, Dr CD Malleswar. He expressed confidence in getting the cooperation and support from other members of the Governing Body in effective discharge of his duties. He gave the opening remarks by introducing new JNTUK nominee Smt.P.Aruna Kumari, Asst. Professor, Dept. of CSE, UCE, JNTUK, Vizianagaram and spoke about important developments that took place in the College, placement record, overall results of the college and appreciate the faculty members for their efforts in achieving the excellent results in UG and PG courses.

The Chairman requested Principal **Dr.J.Sudhakar** to present the agenda notes for discussion.

Principal welcomed **Smt.P.Aruna Kumari,** who has been recently nominated by the JNT University, Kakinada as University nominee to the Governing Body.

The following items are discussed and the corresponding resolutions are adopted:

Item-1 Confirmation of the minutes of the earlier meeting held on 22.12.2017

The minutes of the meeting of the Governing Body held on 22.12.2017 were circulated to all the members for their comments. As there were no comments, it was declared that the minutes were confirmed.

Resolution No. VIEW/GBM/4/2018/1

The Governing Body resolved to approve the minutes of the meeting held on 22nd December 2017. Governing Body recommended the institute in the previous meeting to undertake the following:

2. Apply for NAAC Accreditation followed by permanent affiliation and 2(f) and 12(b)
3. Recruitment of Staff with Ph.D
4. Approved to Introduce of Means Scholarship Scheme and release notification in the month of January 2018.
5. Information and Communication Technology (*ICT*) Class Rooms

5. Approved for Renovations to Seminar Hall, Completion of Construction of a Canteen building and Construction of Fourth floor C-Block or separate Block for I B.Tech

6. Approved to Change the transformer and conversation from LT to HT with 400KVA

Item-2 Report by the Principal on the progress of the College during the Academic Year 2017-18

Principal gave a Power point presentation on various activities of the college since the last Governing Body meeting. Copy of the same was perused by the members and approved.

Resolution No. VIEW/GBM/4/2018/2.1

The Governing Body resolved to express its satisfaction upon the admissions into B.Tech., and M.B.A. for the academic year 2017-18 under the prevailing conditions, and suggested to take necessary steps for improvement of admissions in M.Tech.

Resolution No. VIEW/GBM/4/2018/2.2

The Governing Body reviewed the results of UG and PG programmes and expressed its happiness over the performance.

Resolution No. VIEW/GBM/4/2018/2.3

The Governing Body noted and placed on record its happiness about the University First Place in JNTUK first year results with 78.54 per cent.

Resolution No. VIEW/GBM/4/2018/2.4

The Governing Body is pleased to note that 144 out of 266 eligible students are placed as on date in different organizations during the academic year 2017-18.

Resolution No. VIEW/GBM/4/2018/2.5

The Governing Body noted with pleasure that 3 faculty are awarded Ph.D. It is also noted that 4 faculty members submitted their Ph.D. theses and 15 faculty members pursuing Ph.D. The governing Body congratulated their effort and promised continued support to faculty in such efforts.

Resolution No. VIEW/GBM/4/2017/2.6

The Governing Body while expressing its satisfaction about the publications by the faculty suggested the administration to encourage the faculty for more publications in reputed journals and conferences.

Resolution No. VIEW/GBM/4/2018/2.7

The governing Body expressed its satisfaction that the students are actively participating in co-curricular, sports, social, ethical, cultural and other activities. Also expressed their happiness for achieving first place in JNTUK Central Zone Kho-Kho and third place in volleyball completion.

Item-3 Ratification of selected faculty and approval for fresh recruitment.

A report on faculty selections made and requirement of faculty for the academic year 2017-18 is circulated to the members of the Governing Body. After perusal of the report by the members, the following resolutions are made:

Resolution No. VIEW/GBM/4/2018/3.1

i. The Governing Body noted with satisfaction that the services of 91 existing faculty are ratified 10 new faculty are selected through the interviews conducted by JNTU-Kakinda.

ii. The Governing Body resolved to convey it's thanks to the JNT University-Kakinada for arranging faculty selections/ratification of services of existing faculty

Resolution No. VIEW/GBM/4/2018/3.2

The Governing Body noted that 10 new faculty joined during this period through University selections and College level selections.

Resolution No. VIEW/GBM/4/2018/3.3

The Governing Body authorized the Chairman, Governing Body to recruit the additional faculty required.

Item-4 Income and expenditure status for the financial year 2017-18

The Principal sought permission from the members of the Governing Body to circulate the income and expenditure for the financial year 2017-18 later as the accounts are to be finalized.

Resolution No. VIEW/GBM/4/2017/4.1

The Governing Body resolved to permit the Principal to circulate the income and expenditure under autonomous status for the financial year 2017-18 later as the accounts are to be finalized.

Item-5 Budget for the financial year 2018-19

The proposed budget for the financial year 2018-19 as prepared by the Finance Committee is circulated to the members.

Resolution No. VIEW/GBM/4/2017/5.1

The Governing Body approved the proposed budget for the Academic year 2018-19 as prepared by the Finance Committee.

Item-6 Proposals for the Approval of Governing Body

Resolution No. VIEW/GBM/4/2018/6.1

The Governing Body resolved to approved the proposal of NAAC Accreditation application process followed by permanent affiliation and 2(f) and 12(b) and suggested to to take necessary steps to apply for NAAC Accreditation.

Resolution No. VIEW/GBM/4/2018/6.2

The Governing Body resolved to approved the proposal of Recruitment of Professors with Ph.D in CSE, ECE & EEE Departments to maintain at least One Professor in each Department as per guidelines of JNTUK.

Resolution No. VIEW/GBM/4/2018/6.3

Approval is accorded for Introduction of Means Scholarship Scheme to economically backward student.

Resolution No. VIEW/GBM/4/2018/6.4

The Governing Body approved the proposal of the following infrastructure additions for the academic year 2018-19 and approved the required funds for:

i) Renovations to Seminar Hall
j) Construction of Fourth Floor to establish additional Class rooms for B.Tech and MBA for the next academic year.
k) Construction of Open Auditorium with sponsorship

Resolution No. VIEW/GBM/4/2018/6.5

Approval is accorded to construct separate hostel block for women's in VIEW campus to overcome the accommodation problems in present Hostel.

Resolution No. VIEW/GBM/4/2018/6.6

Approval is accorded to construct Arch at main road near to STBL Projects and Portico at main entrance to overcome the problems in rainy season.

Resolution No. VIEW/GBM/4/2018/6.7

Approval is accorded to construct Two & Four wheeler parking shed in VIEW campus as per the request raised by the students and staff.

Minutes of the 22nd meeting of Board of Governors

Vignan's Institute of Engineering for Women

Held on April 13, 2019 at 10.00 a.m. at Board Room, VIEW, Visakhapatnam

Members Present

1	Dr. CD Malleswar	Chairman
2	Sri K Pavan Krishna	Member
3	Sri.Venkata Rayulu Bonam	Member
4	Prof. P. V. G. D. Prasad Reddy	Member
5	Dr. B.Subba Rao	Member
6	Smt.P.Aruna Kumari	Member
7	Dr. V. Vizia Saradhi	Member
8	Dr.J.Sudhakar	Member Secretary
9	Prof.A.Sesha Rao	Member

The following members have requested for leave of absence expressed their inability to attend meeting.

1. Dr.L.Rathaiah
2. Padma Bhushan Sri Dr.Y.Lakshmi Prasad
3. Sri.R.Bala Murugan
4. Mr.B.K.Surya Prakash

The meeting was initiated with the welcome note by Chairman of Governing Body of VIEW, Dr CD Malleswar. He gave the opening remarks and spoke about important developments that took place in the College, placement record, overall results of the college and appreciate the faculty members for their efforts in achieving the excellent results in UG and PG courses.

The Chairman requested Principal **Dr.J. Sudhakar** to present the agenda notes for discussion. The following items are discussed and the corresponding resolutions are adopted:

Item-1 Confirmation of the minutes of the earlier meeting held on 06.09.2018

The minutes of the meeting of the Governing Body held on 06.09.2018 were circulated to all the members for their comments. As there were no comments, it was declared that the minutes were confirmed.

Resolution No. VIEW/GBM/4/2018-19(2)/1

The Governing Body resolved to approve the minutes of the meeting held on 6th September 2018. Governing Body recommended the institute in the previous meeting to undertake the following:

1. Apply for NBA Accreditation followed by permanent affiliation & 2(f) and 12(b)
2. Recruitment of Professors
3. Exclusive computer lab for JNTUK Online exams (80 systems)
4. Infrastructure additions proposed:
    a) Renovations to Seminar Hall
    b) Construction of fourth floor or Separate Block for 1st B.Tech & MBA.
    c) Construction of Open Auditorium with sponsorship
5. Separate Hostel Block in the campus
6. Arch at the main road (STBL) & Portico at main entrance
7. Two & Four wheeler parking shed

Item-2 Report by the Principal on the progress of the College during the Academic Year 2018-19 (Upto I Semester)

Principal gave a Power point presentation on various activities of the college since the last Governing Body meeting. Copy of the same was perused by the members and approved.

Resolution No. VIEW/GBM/4/2018-19(2)/2.1

The Governing Body resolved to express its satisfaction upon the admissions into B.Tech., and M.B.A. for the academic year 2018-19 under the prevailing conditions, and suggested to take necessary steps for improvement of admissions in M.Tech.

Resolution No. VIEW/GBM/4/2018-19 (2)/2.2

The Governing Body reviewed the results of UG and PG programmes and expressed its happiness over the performance in the first semester of the academic year 2018-19

Resolution No. VIEW/GBM/4/2018-19 (2)/2.3

The Governing Body noted and placed on record its happiness about the University First Place in JNTUK first year results with 80.79 per cent in the first semester results of the academic year 2018-19.

Resolution No. VIEW/GBM/4/2018-19 (2)/2.4

The Governing Body is pleased to note that 286 out of 296 eligible students are placed as on date in different organizations during the academic year 2018-19.

Resolution No. VIEW/GBM/4/2018-19 (2)/2.5

The Governing Body while expressing its satisfaction about the publications by the faculty suggested the administration to encourage the faculty for more publications in reputed journals and conferences.

Resolution No. VIEW/GBM/4/2018-19(2)/2.6

The governing Body expressed its satisfaction that the students are actively participating in co-curricular, sports, social, ethical, cultural and other activities. Also expressed their happiness for achieving first place in JNTUK Central Zone Kho-Kho and third place in volleyball completion.

Item-3 Ratification of selected faculty and approval for fresh recruitment.

Resolution No. VIEW/GBM/4/2018-19(2)/3.1

The Governing Body is overwhelmed with happiness for about 66.41% of faculty was ratified by JNTUK till date.

Resolution No. VIEW/GBM/4/2018-19(2)/3.2

The Governing Body resolved to convey thanks to the JNT University-Kakinada for arranging faculty selections/ratification of services of existing faculty

Item-4 Income and expenditure status for the financial year 2018-19

The Principal sought permission from the members of the Governing Body to circulate the income and expenditure for the financial year 2018-19 later as the accounts are to be finalized.

Resolution No. VIEW/GBM/4/2018-19(2)/4.1

The Governing Body resolved to permit the Principal to circulate the income and expenditure under autonomous status for the financial year 2018-19 later as the accounts are to be finalized.

Item-5 Budget for the financial year 2019-20

The proposed budget for the financial year 2019-20 as prepared by the Finance Committee is circulated to the members.

Resolution No. VIEW/GBM/4/2018-19(2)/5.1

The Governing Body approved the proposed budget for the Academic year 2019-20 as prepared by the Finance Committee.

Item-6 Proposals for the Approval of Governing Body

Resolution No. VIEW/GBM/4/2018-19(2)/6.1

The Governing Body resolved to approved the proposal of NBA Accreditation application process followed by permanent affiliation and 2(f) and 12(b) and suggested to to take necessary steps to apply for NAAC Accreditation.

Resolution No. VIEW/GBM/4/2018-19(2)/6.2

The Governing Body suggested to promote internal faculty from the position of Associate Professor to Professor instead of recruiting Professors from external sources to maintain at least One Professor in each Department as per guidelines of JNTUK.

Resolution No. VIEW/GBM/4/2018-19(2)/6.3

Approval is accorded for setting up of New Computer Lab with 80 systems for JNTUK online examinations.

Resolution No. VIEW/GBM/4/2018-19(2)/6.4

The Governing Body approved the proposal of the following infrastructure additions for the academic year 2018-19 and approved the required funds for:

l) Construction of Fourth Floor to establish additional Class rooms for B.Tech and MBA for the next academic year.
m) Construction of Open Auditorium with sponsorship

Resolution No. VIEW/GBM/4/2018-19(2)/6.5

Approval is accorded to construct separate hostel block for women's in VIEW campus to overcome the accommodation problems in present Hostel.

Resolution No. VIEW/GBM/4/2018-19(2)/6.6

Approval is accorded to establish main gate at security point along with security room and increase the security people.

Resolution No. VIEW/GBM/4/2018-19(2)/6.7

Approval is accorded to construct Two & Four wheeler parking shed in VIEW campus as per the request raised by the students and staff.

Minutes of the 23rd meeting of Board of Governors

Vignan's Institute of Engineering for Women

Held on November 12, 2019 at 10.00 a.m. at Board Room, VIEW, Visakhapatnam.

Members Presented

1	Dr. V.Bhujanga Rao	Chairman
2	Dr. L. Rathaiah	Vice-Chairman
3	Sri K Pavan Krishna	Member
4	Dr.Archana Sharma	Member
5	Sri.Venkata Rayulu Bonam	Member
6	Prof. P. V. G. D. Prasad Reddy	Member
7	Dr.Rishi Verma	Member
8	Dr. B.Subba Rao	Member
9	Smt.P.Aruna Kumari	Member
10	Mr.Suresh Kumar Tankala	Member
11	Dr.J.Sudhakar	Member Secretary
12	Prof.A.Sesha Rao	Member

The following members have requested for leave of absence expressed their inability to attend meeting.

S.No	Name of the Member	Designation
1.	Padma Bhushan Sri. Dr. Y Lakshmi Prasad	Member
2.	Sri. R.Bala Murugan	Member
3.	Mr.B.K.Surya Prakash	Member

The meeting was initiated with the welcome note by Vice-Chairman of Governing Body of VIEW, Dr.L.Rathaiah. He gave the opening remarks by introducing new Chairmna of Governing Body Dr. V.Bhujanga Rao and other new member Dr.Archana Sharma, Dr.Rishi Verma and Mr.Suresh Kumar Tankala. He expressed confidence in getting the cooperation and support from other members of the Governing Body for smooth function of the Institution.

The Chairman requested Principal **Dr.J.Sudhakar** to present the agenda notes for discussion.

Principal welcomed **,** Dr.Archana Sharma, Dr.Rishi Verma and Mr.Suresh Kumar Tankala who have been recently nominated for Governing Body of VIEW and presented about important developments that took place in the College, placement record, overall results of the college and appreciate the faculty members for their efforts in achieving the excellent results in UG and PG courses. The following items are discussed and the corresponding resolutions are adopted:

Item-1 Confirmation of the minutes of the earlier meeting held on 13.04.2019

The minutes of the meeting of the Governing Body held on 13.04.2019 were circulated to all the members for their comments. As there were no comments, it was declared that the minutes were confirmed.

Item-2 Report by the Principal on the progress of the College during the Academic Year 2018-19

Principal Dr.J.Sudhakar gave a Power point presentation on various activities of the college since the last Governing Body meeting. Copy of the same was perused by the members and approved.

Resolution No. VIEW/GBM/4/2019-20(1)/2.1

The Governing Body resolved to express its satisfaction upon the admissions into B.Tech., and M.B.A. for the academic year 2018-19 under the prevailing conditions, and suggested to take necessary steps for improvement of admissions in M.Tech.

Resolution No. VIEW/GBM/4/2019-20(1)/2.2

The Governing Body reviewed the results of UG and PG programmes and expressed its happiness over the performance.

Resolution No. VIEW/GBM/4/2019-20(1)/2.3

The Governing Body noted and placed on record its happiness about the University First Place in JNTUK first year results with 84.18 percent which is 5.64 percent more than the results of 2017-18 (78.54 per cent).

Resolution No. VIEW/GBM/4/2019-20(1)/2.4

The Governing Body is pleased to note that 193 out of 297 eligible students are placed as on date in different organizations during the academic year 2018-19.

Resolution No. VIEW/GBM/4/2019-20(1)/2.5

The Governing Body noted with pleasure that 4 faculty are awarded Ph.D. It is also noted that 5 faculty members submitted their Ph.D. theses and 15 faculty members pursuing Ph.D. The governing Body congratulated their effort and promised continued support to faculty in such efforts.

Resolution No. VIEW/GBM/4/2019-20(1)/2.6

The Governing Body while expressing its satisfaction about the publications by the faculty and suggested the management to encourage the faculty for more publications in reputed journals and conferences. Also advised to encourage students to pursue certification progrmes like NPTEL, Udacity, IoT, Fusion 360 etc.,

Resolution No. VIEW/GBM/4/2019-20(1)/2.7

The governing Body expressed its satisfaction that the students are actively participating in co-curricular, sports, social, ethical, cultural and other activities especially visit of ISRO, UBA activities, Activities of 150th Mahatma, Swatcha Sarveksha, Water conservation, National Sports Day.

Item-3 Ratification of selected faculty and approval for fresh recruitment.

A report on faculty selections made and requirement of faculty for the academic year 2018-19 is circulated to the members of the Governing Body. After perusal of the report by the members, the following resolutions are made:

Resolution No. VIEW/GBM/4/2019-20(1)/3.1

i. The Governing Body noted with satisfaction that the services of 91 (81.25%) existing faculty are ratified 9 new faculty are selected through the interviews conducted by JNTU-Kakinda.

ii. The Governing Body resolved to convey it's thanks to the JNT University-Kakinada for arranging faculty selections/ratification of services of existing faculty

Resolution No. VIEW/GBM/4/2019-20(1)/3.2

The Governing Body noted that 10 new faculty joined during this period through University selections and College level selections.

Resolution No. VIEW/GBM/4/2019-20(1)/3.3

The Governing Body authorized the Chairman, Governing Body to recruit the additional faculty required.

Item-4 Income and expenditure status for the financial year 2018-19

The Principal sought permission from the members of the Governing Body to circulate the income and expenditure for the financial year 2018-19 later as the accounts are to be finalized.

Resolution No. VIEW/GBM/4/2019-20(1)/4.1

The Governing Body resolved to permit the Principal to circulate the income and expenditure under autonomous status for the financial year 2018-19 later as the accounts are to be finalized.

Item-5 Budget for the financial year 2019-20

The proposed budget for the financial year 2019-20 as prepared by the Finance Committee is circulated to the members.

Resolution No. VIEW/GBM/4/2019-20(1)/5.1

The Governing Body approved the proposed budget for the Academic year 2019-20 as prepared by the Finance Committee.

Item-6 Proposals for the Approval of Governing Body

Resolution No. VIEW/GBM/4/2019-20(1)/6.1

The Governing Body resolved to approved the proposal to submit pre-qualified in the month of Mar-Apr 2020 followed by the submission of SAR in the month of May-June 2020.

Resolution No. VIEW/GBM/4/2019-20(1)/6.2

6.2.1 Approval is accorded for applying 2(f) and 12(b) status through an indemnity bond and it is resolved that every amount of grant that will be given by the commission to the college shall when received by the college solely be used for the benefit and purposes of the college in accordance with the terms and conditions of the grant and not for any other purpose or any other institution.

6.2.2 The Institute shall furnish to the commission the balance sheet of the Institution every year along with the annual audited accounts of the college.

6.2.3 The institute shall fulfil any other terms and condition laid down in indemnity bond.

Resolution No. VIEW/GBM/4/2019-20(1)/6.3

The Governing Body resolved to approved the proposal of Recruitment of Professors with Ph.D in CSE, ECE & EEE Departments to maintain at least One Professor in each Department as per guidelines of JNTUK.

Resolution No. VIEW/GBM/4/2019-20(1)/6.4

Approval is accorded for organizing International Conference by CSE, ECE, EEE & IT departments each during the academic year 2019-20.

Resolution No. VIEW/GBM/4/2019-20(1)/6.5
Approval is accorded for setting up of New Computer Lab with 100 systems for JNTUK online examinations.
Resolution No. VIEW/GBM/4/2019-20(1)/6.6
The Governing Body approved the proposal of the following infrastructure additions for the academic year 2019-20 and approved the required funds for:

n) Interview panel rooms
o) Seminar Hall in proposed forth floor
p) Construction of Fourth Floor to establish additional Class rooms for B.Tech and MBA for the next academic year.
q) Construction of Open Auditorium with sponsorship

Resolution No. VIEW/GBM/4/2019-20(1)/6.7
Approval is accorded to construct separate hostel block for women's in VIEW campus to overcome the accommodation problems in present Hostel.
Resolution No. VIEW/GBM/4/2019-20(1)/6.8
Approval is accorded to construct Two & Four-wheeler parking shed in VIEW campus as per the request raised by the students and staff.
Resolution No. VIEW/GBM/4/2019-20(1)/6.9
Approval is accorded to implement promotion policy to all regular teaching faculty who are seeking for the promotion from **Assistant Professor Scale to Associate Professor Scale** and advised to include in administrative manual of VIEW.

10.1.2(B) ADMINISTRATIVE SETUP

The Institute has a well marked administrative set up conforming to the norms of the AICTE and the UGC.

✓ The Principal wields the powers with regard to financial and to all the academic and administrative matters including the conduct of examinations.

✓ Each of the departments has a head of the department who, in turn, assigns various tasks to different members of faculty.

✓ For undertaking examination oriented tasks, Principal is the Chief superintendant of Examinations.

✓ As far as the administrative functions are concerned, the Dean of administration and the manager looks after the activities executed by clerical, programming, data entry and ministerial staff.

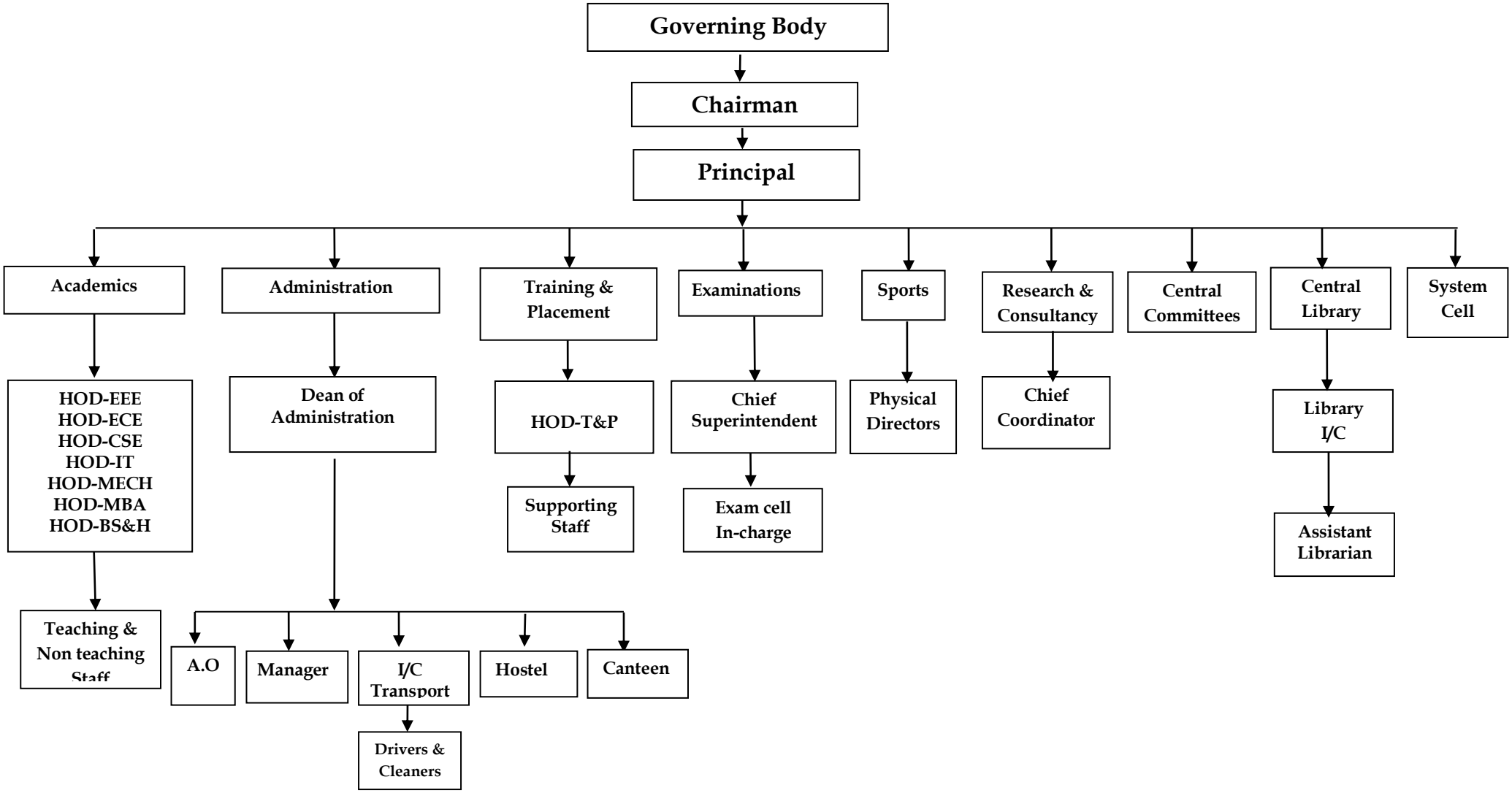
✓ The departments have their own respective department offices which function under the guidance of respective heads of departments.

✓ All the monetary transactions (both the receipts and payments) are processed through a nationalized bank.

✓ On the whole, the members of faculty and nonteaching staff of the college believe in the dignity of labour, and all the functions of the college are meticulously planned, properly coordinated and perfectly executed.

The structure of the institutional management is shown below:

VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN: ORGANIZATIONAL STRUCTURE



10.1.2 (C) DUTIES AND RESPONSIBILITIES OF ADMINISTRATIVE AUTHORITIES

(i) **Principal**

The Principal is the administrative head for all the activities of the Institution. He is responsible for implementation of all the policy decisions of the management with a view to achieve the set targets.

As the head of the Institution, the Principal is a leader who inspires the students and the staff and motivates them for cordial working atmosphere to make the institution excel well. The following are the important functions:

Academic:

1. The Principal shall make arrangements for planning the various courses to be offered and the preparation of course materials
2. The Principal shall supervise the course timetable, staff allocation, staff attendance and syllabus coverage.
3. He/She shall ensure the conduct of internal continuous assessment examinations at appropriate periods.
4. He/She shall monitor the student projects, progress and the University examinations (theory and practical).
5. He/She shall review the reports of the analysis of test marks of the students and arrange for special coaching etc for academically poor students.

General Administration and Finance:

1. The Principal shall convene the Governing council meeting at least once in every semester.
2. The Principal shall make recommendations regarding plans for the development of the institution in the years to come.
3. He shall help the creation of necessary infrastructure for a conducive atmosphere for education in the campus.
4. He shall ensure the appointment of qualified staff (both teaching and non -teaching)
5. All correspondences within the campus and to outside organizations and the University will be done through the Principal with the approval of the Chairman
6. The Principal shall convene the HODs meeting at least once in 15 days and maintain the Minutes book.

7. Principal is assisted by the Finance committee and purchase committee in financial administration.
8. The Principal or the officer delegated with such powers shall counter sign all kinds of scholarship bills in respect of students of the college.

Student Affairs:

1. The Principal shall plan for offering value-added courses, training and placement opportunities and educational tour to the students.
2. He shall provide avenues for co-curricular, extra-curricular activities, professional societies and counseling and guidance programmes to the students.
3. He shall arrange for the periodical monitoring of students attendance and their progress in studies and arrange for parent-teacher meetings as and when necessary.
4. He shall take appropriate action to ensure that the rules and regulations are strictly followed by the students.
5. The Management expects the Principal to be a coordinating point to ensure that all the policies of the management are implemented and promote the college as an excellent educational institution.

Research and Extension Activities:

1. The Principal shall encourage conducting of seminars and symposia and such research – oriented activities in the campus.
2. He shall encourage the staff to become members of professional bodies, carry out consultancy works, mini projects and other extension activities.

(ii) Head of the Department

An efficient Departmental head is a well disciplined and dedicated person with leadership qualities. He motivates the Students and Staff to perform their respective academic / administrative duties and responsibilities. His *duties* are as under:

1. Check the attendance register every week and sign after verification.
2. Preparation of (i) academic schedules and its implementation, (ii) academic time table, (iii) laboratory log books, manuals, registers, through the concerned faculty member.
3. Prepare the list of laboratory requirements as necessary and initiate procurement action to facilitate smooth conduction of the lab experiments.
4. Carryout the stock verification, maintenance of the lab and its equipment.

5. Recommend the leaves / permissions of the staff within the department only after ensuring the work adjustments and maintain the leave record.
6. Conduct regular staff meetings to monitor the progress and preserve the minutes of the meeting.
7. Students having shortage of attendance must be counseled and their parents are informed.
8. The overall distribution of the faculty work load should be unbiased.
9. Monitor the syllabus completion at regular interval and prepare fortnightly reports for submission to the Principal.
10. Conduct and maintain the record of the sessional and practical marks awarded is as per university regulations.
11. Participate in any additional activities entrusted by the Principal

(iii) Dean-Administration

The Dean of Administration is a person looking into all administrative matters prescribed by Principal/Management from time to time. His/Her duties are as under:

1. Overseeing all personnel matters involving academic and non academic employees including notification, recruiting, appointment, reappointment, termination and dismissal.
2. Maintain service records and supervise the process updating personal files of both teaching and Non-Teaching staff.
3. Co-ordinate to conduct Governing Body Meeting and Prepare the Governing Body Meeting Reports
4. Evaluation of teaching and non-teaching staff appraisals for annual Increments and placing in front of Management for Approval.
5. Implementation of AICTE Pay Scales to the Teaching Staff and revision of pay scales from time to time and maintenance of service registers, salary registers of both teaching and non-teaching staff.
6. Authorization of all office & administrative, operational expenses to make payment to suppliers/vendors.
7. Verification and Authorization for Financial Assistance to teachers to attend conferences, seminars, workshops in and outside India.
8. Evaluation of Means and Merit scholarships of students and Awards to Teaching and non teaching staff.

9. Looking into affiliated University (JNTU, Kakinada) related matters such as attending meetings, submitting reports and taking necessary actions on the affiliated University Notifications and circulars from time to time.
10. Guiding the staff to prepare reports pertaining to AFRC, NIRF, Facts Finding Committee (FFC) and AICTE.
11. Exercise such other duties, as prescribed by or assigned by the Management from time to time.

(iv) Training and Placement Officer

The training and placement officer are the coordinator of placement and training cell. One faculty member from each department nominated by the respective H.O.D is currently a member of the cell. The cell meets once in every month to finalize the plan of activities for II, III, and IV-year students to improve the employability of students, the cell submits the plan for the approval of the Principal and Management. The activities of this officer comprise of (i) Training (ii) Placement and (iii) Alumni.

Training

1. To create an awareness among the students about the requirements of various recruiting organizations.
2. To create awareness and train the students in communication skills.
3. To establish a "Centre for Career Guidance and Counseling" and to organize professional counseling by experts in career opportunities.

Placement

1. To maintain the data base of various companies / prospective recruiters and recruiting agencies and correspond with them.
2. To coordinate with the HOD's, Exam branch, and the Principal to procure a list of the eligible students for jobs, projects, further studies and desirous of becoming entrepreneurs and guide them in the respective areas.
3. To organize regular mock interviews and group discussions in association with the language faculty.
4. To intimate the students about the placement campaign in various major cities in the country.

5. To correspond with various prospective employers with respect to Project Works, Seminars, Industry Visits and Job recruitment

6. To gather the information about further studies of various universities and display the same for higher studies.

Alumni

1. To educate the present outgoing batch of students about the alumni association and its relevance for the betterment of the students after their graduation.

2. To coordinate the filling up of the alumni proforma by the outgoing students.

3. To maintain an alumni database and conduct an alumni get together at least once in a year.

4. To send greetings or letters of appreciation to the alumni.

(v) In-Charge- Examination

Examination in charge is the centre point for conducting a standard examination system in this Institution. His keen observation and proper supervision help to develop a standard assessment and evaluation system for an organization. His responsibilities include:

1. To coordinate the conduct of various examinations.

2. To inform the Principal regarding the scheduling, material requirement, procedures, invigilation status well in advance.

3. To coordinate with the administrative staff with regard to requirement of stationery, printing and other material required for the conduct of examinations.

4. To maintain total confidentiality and ethics in the conduct of the examinations.

5. To maintain all the records and information pertaining to the examinations.

6. To conduct regular results analysis with the help of administrative staff and inform the Principal.

7. To prepare a monthly, quarterly, half yearly and annual report and submit to the Principal.

(vi) Coordinator - Research & Development

A research and development (R&D) coordinator perform a number of highly important roles within an organization. They are responsible for research, planning, and implementing new programs and protocols into their company or organization and overseeing the development of new products. His duties and responsibilities include:

1. To constitute a project screening committee – to process any project selected by the Staff & Students.

2. To maintain a database of the research activities carried out by the Staff & students.

3. To liaise with the outside institutions of repute for carrying out research and consultancy activities.

4. To ensure and encourage development of in-house projects.

5. To help the students in selecting live projects in their respective areas.

(vii) Coordinator- Central Library

The coordinator duties and responsibilities consist of the following.

1. To inform all the users the rules and regulations of the Library in terms of issue, renewal, the Do's and the Don'ts in the Library.

2. To organize library audit once in every year

3. To coordinate among student and staff and understand the library needs and inform the library about this.

4. To organize various functions and activities such as library week, or to install clubs such as reading club essentially to develop a very interactive and vibrant reading and library usage culture among the student and staff.

5. To recommend the required volumes, titles of books, Journals, Magazines, News papers, Audio video CD's and infrastructure as per AICTE/ JNTU norms.

6. To check the correctness in the stock register/ Accession register and prepare a monthly, quarterly, half yearly and annual report and submit to the Principal.

8. To bring to the notice of the Principal any complaints / suggestions from the students / staff.

(viii) Coordinator- Games & Sports

The Sports Coordinator at VIEW has overall responsibility for the leadership of all institutional sports and works with other staff to ensure that a diverse, well-managed sports program is in place for students. His/her main duties are:

1. To ensure the availability sufficient quantity of sports equipment through purchase as and when required by following the establish purchase procedures.

2. To coordinate the maintenance of records of the purchase i.e. quotation, purchase order, bills and stock register.

3. Any issue deemed fit must be brought to the notice of the Principal.

10.1.2 (D) ACADEMIC AND ADMINISTRATIVE BODIES:

The following is the list of academic and administrative bodies constituted to work towards to betterment of all stakeholders of the Organization.

(a) Internal Quality Assurance Committee (IQAC)

Internal Quality Assurance Cell (IQAC) has been promoting measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

Table 10.2 Composition of IQAC

Sl. No	Designation	Recommendation of IQAC	Name of office bearer
1.	Chairperson	Head of the Institution	Dr.J.Sudhakar –Principal, VIEW
2.	Senior Teacher	One of the senior faculty as the Coordinator of the IQAC	Dr.Akanksha Mishra, Associate Professor, EEE
3.	Admin. Representative	Few Senior Administrative Officers	Dr. P.S.Ravindra, Dean-Admin Mr.P.Chandra Sekhar Babu,
4.	Senior faculty representatives	Three to eight teachers	1. Dr.K.Vijaya Kumar, HOD-CSE 2. Dr.Ch.Ramesh Babu, HOD-ECE 3. Dr.K.Durga S Prasad, HOD-EEE 4. Dr.B.Prakash, HOD-IT 5. Dr.M.Nagendrababu, HOD-MECH 6. Dr.K.Chaitanya, HOD-BS&H 7. Dr.M.Pardha Saradhi, HOD-MBA
5.	Management representative	One member from the Management	Prof.A.Sesha Rao-Academic Director
6.	Local Society nominee	One/two nominees from local society, Students and Alumni	Mr.U.Chitti Babu, D.G.M (HR), Visakha Dairy
	Alumini nominee		Ms.Sarika Bora, Senior Systems Engineer, Infosys Limited
	Student nominee		Ms.Chandana Sravani, III ECE
7.	Employer Nominee	One/two nominees from Employers/Industrialist/Stakeholders	Dr.M.Nagendrababu, Head-T&P
	Industrialist nominees		Girish Tiwari, Manager, Vizag Steel Plant
	Stakeholder Nominee		Mr.P.V.Satyanarayana Raju, RINL, Visakhapatnam

Committee Frequency of Meetings: As and when necessary

The prime tasks of the QCC are as follows:

1. Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution
2. Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes
3. Documentation of the various programmes/activities leading to quality improvement.
4. Development and maintenance of institutional database through College Management System for the purpose of maintaining /enhancing the institutional quality.
5. Prepare a consolidated report of all the status, in terms of losses, obsolete equipment, items recommended for writing-off, disposal of waste, general fitness of all equipment and so on.
6. Ensure research work papers are adequately documented and audit evidence is sufficient.
7. Conduct periodic training workshops to promote awareness of internal controls and to discuss changes in policies that will impact the system.
8. To give adequate counseling and guidance to students in their personal / academic / professional fronts through the Counseling and Guidance cell.

b. Academic Planning and Advisory Committee

The college academic committee is formed with the Principal and Heads of the department. The function of APAC is to make recommendations to the management of the college and to the governing board with regard to academic and professional matters. APAC has been working for the quality enrichment and attainment of expected academic outcomes. The Academic Planning and Advisory Committee takes-up the following activities.

1. Monitor submission of Lesson Plans, Issue of Attendance Registers, List of students, Class Time-Tables consisting of Tutorial classes, Sports counseling hours, GATE, CRT, PDP Classes, remedial time tables, subject revision time-table counseling.

2. Frame the necessary academic structure so as to achieve the objectives of the college and supervise the day to day administration of the college.

4. Facilitate the events such as faculty and student induction programmes, workshops, seminars and symposium, cultural activities.

5. To review the academic and related activities of the college.

6. To formulate master plan for campus development, facilitating implementation of the provision of the perspective plan.

7. To draw new schemes of development for the college.

8. To plan for resource mobilization through industry interaction, consultancy and extramural funding.

9. To promote research and extension activities in the college campus.

10. To plan for sustaining the quality of education, quality improvement and accreditation of the college.

Committee Frequency of Meetings: Two time a year

Table 10.3 Composition of Academic Planning and Advisory Committee

Sl. No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Sri R.Sri Hari	Scientist-G, NSTL	External Member
4.	Dr.K.Vijaya Kumar	HoD-CSE	Member
5.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
6.	Dr.K.Durga Syam Prasad	HoD-EEE	Member
7.	Dr.B.Prakash	HoD-IT	Member
8.	Dr.M.Nagendrababu	HoD-MECH	Member
9.	Dr.M.Pardha Saradhi	HoD-MBA	Member
10.	Dr.K.Chaitanya	HoD-BS&H	Member

c. Examination Committee

The Prime tasks of the Committee are as follows:

1. Lesioning with examination section of JNTUK regarding the conduct of examinations (UG &PG), Spot Valuation.
2. Identification of detained candidates and promoted candidates based on credits and attendance
3. Estimation of stationary requirements for conduction of examinations
4. Monitoring and conduction of University and Internal Examinations

Table 10.4 Composition of Examination Committee

Sl.No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chief Superintendent
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Mr.A.Ganapathi Rao	Exam Cell in-charge	Member
4.	Mr. K. Chiranjeevi	Coordinator-UG	Member
5.	Mr.K.Santosh Kumar	Coordinator-PG	Member
6.	Dr.K.Vijaya Kumar	HoD-CSE	Member
7.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
8.	Dr.K.DurgaSyamPrasad	HoD-EEE	Member

9.	Dr.B.Prakash	HoD-IT	Member
10.	Dr.M.Nagendrababu	HoD-MECH	Member
11.	Dr.M.Pardha Saradhi	HoD-MBA	Member
12.	Dr.K.Chaitanya	HoD-BS&H	Member

Committee Frequency of Meetings: Once after every examination session.

d. Training and Placement Committee

The Prime tasks of the Committee are as follows:

1. Provide campus drive placements for eligible students.

2. Develop the students with their behavioiral skills, language and communication skills, in their four years of study and also counsel them for job opportunities in the country and abroad.

1. Develop communication skills in students and improve the vocabulary and LSRW skills (Listening, Speaking, Reading & Writing), technical report writing and presentation skills.
2. Prepare students for campus interviews, reasoning and aptitude tests.
3. Maintain Alumni database and invite their valuable suggestions by conducting alumni meet regularly.

Table 10.5 Composition of Training and Placement Committee

Sl.No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Dr.K.Vijaya Kumar	HoD-CSE	Member
4.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
5.	Dr.K.Durga Syam Prasad	HoD-EEE	Member
6.	Dr.B.Prakash	HoD-IT	Member
7.	Dr.M.Nagendrababu	HoD-MECH	Member
8.	Dr.M.Pardha Saradhi	HoD-MBA	Member
9.	Dr.K.Chaitanya	HoD-BS&H	Member
10.	Dr.K.V.Ramana Rao	Assistant Training Officer	Member
11.	Dr.M.Nagendrababu	Training and Placement Officer	Coordinator

Committee Frequency of Meetings: Once in a month

e. Library Committee

The LC is responsible to:

1) Prepare the list of text books/Journals to be purchased for the current academic year.

2) Prepare yearly budget for Library and send recommendations to management

3) Conduct at least two meetings at the beginning of every semester to review the performance of all library procedures.

4) Review and enhance digital library resources.

5) Guide the librarian in the overall functioning of the central library both qualitatively and quantitatively.

Table 10.6 Composition of Library Committee

Sl.No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Dr.K.Vijaya Kumar	HoD-CSE	Member
4.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
5.	Dr.K.Durga Syam Prasad	HoD-EEE	Member
6.	Dr.B.Prakash	HoD-IT	Member
7.	Dr.M.Nagendrababu	HoD-MECH	Member
8.	Dr.M.Pardha Saradhi	HoD-MBA	Member
9.	Dr.K.Chaitanya	HoD-BS&H	Member
10.	Mrs.A.L.Vineela	Librarian	Member
11.	Mrs.Yamini Padmamala	Assistant Librarian	Member
12.	Dr.K.Kushal Kumar	Assoc.Professor-EEE	Coordinator

Committee Frequency of Meetings: Once in a Semester

f. Research and Development Committee

The R&DC is responsible to:

1. Review the proposals submitted by each department for R&D projects.

2. Guide the departments in submitting R&D proposals for funding agencies like AICTE/MHRD, DST, UGC, DRDO etc.,

3. Review the progress of R&D projects, if any

4. Conduct workshops, conferences, guest lectures on advanced research or emerging trends in industry needs.

Table 10.7 Composition of Research and Development Committee

Sl.No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member

3.	Dr.K.Vijaya Kumar	HoD-CSE	Member
4.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
5.	Dr.K.Durga Syam Prasad	HoD-EEE	Member
6.	Dr.B.Prakash	HoD-IT	Member
7.	Dr.M.Nagendrababu	HoD-MECH	Member
8.	Dr.M.Pardha Saradhi	HoD-MBA	Member
9.	Dr.K.Chaitanya	HoD-BS&H	Member
10.	Dr.M.Nagendrababu	Assoc.Professor- MECH	Coordinator

Committee Frequency of Meetings: Twice in a Semester

g. Other Statutory and Non-Statutory Committees

In addition to above committees, the college has other committees to ensure proper development and management of academic, financial and general administrative affairs. All the below mentioned committees comprise of internal officials and are constituted to operationalize decisions taken by the statutory committees and also to manage day to day operations.

Table 10.8 Composition of Other Statutory and Non-Statutory Committees

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) Monitor admission procedures for students admitted under convener quota, management quota. b) Maintain admission register for all UG and PG students. c) Issue of code of conduct, academic rules & regulations, course structure & syllabus. d) Analyze admission trends and provide feedback/suggestions syllabus. e) Preparation & Submission of necessary documents to University & APSCHE. **Frequency of Meeting: Once in a Year**
1.	Admission Committee (AC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.N.Srikanth	Executive Director	Member	
4.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
5.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
6.		Dr.B.Prakash	HoD-IT	Member	
7.		Dr.M.Nagendrababu	HoD-MECH	Member	
8.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
9.		Dr.K.Chaitanya	HoD-BS&H	Member	
10.		Mr.S.A.Ramakrishna Raju	A.O.	Member	
11.		Dr.K.Durga Syam Prasad	HoD-EEE	Coordinator	
Sl.No	**Committee Name**	**Name of Committee Members & Designation**			**Duties and Responsibilities**
		Name of Faculty	**Designation**	**Position**	a) To provide the necessary information about various competitive examinations to the students. b) To provide information about various careers available in the competitive world. c) To organize various career development seminars and workshops. d) To invite experts from various companies to interact with students. **Frequency of Meeting:** Twice in a Semester
1.	Student Welfare Committee (SWC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.G.Lakshmana	Asst.Prof-ECE	Member	
4.		Mrs.R.Pravallika	Asst.Prof -CSE	Member	
5.		Mr.K.Vamsi	Asst.Prof -EEE	Member	
6.		Mrs.S.Kalyani	Assoc.Prof -IT	Member	
7.		Mrs.K.Vahini	Asst.Prof -MECH	Member	
8.		Mrs.A.Venkata Lakshmi	Asst.Prof -MBA	Member	
9.		Mr.B.Nagabhushan Rao	Asst.Prof -BS&H	Member	
10.		Mrs.T.Sandhya Kumari	Assoc.Prof -ECE	Coordinator	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) Plan and conduct National level/state level student seminars, workshop, live model exhibitions, sports, games and cultural events. b) Prepare a budget estimate for the conduct of various co-curricular and extracurricular activities. c) Select students to be deputed for co-curricular and extra-curricular activities outside the college. **Frequency of Meeting:** Twice in a Semester
1.	Extra-curricular Activities Committee (ECAC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
4.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
5.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
6.		Dr.B.Prakash	HoD-IT	Member	
7.		Dr.M.Nagendrababu	HoD-MECH	Member	
8.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
9.		Dr.K.Chaitanya	HoD-BS&H	Member	
10.		Ms.M.Hema V. Lakshmi	Physical Director	Member	
11.		Department Association Members		Member (s)	
12.		Dr.K.Kushal Kumar	Assoc.Prof.-EEE	Coordinator	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) Receive budgetary requirements consolidated by the Principal which are submitted by various HODs. b) Recommend proposals for infrastructural improvement periodically. c) Recommend APAC the new courses to be started. d) Initiate Programs for conduction GATE, CRT, PDP classes, Soft Skills Training, Certification Courses, Bridge Courses, Add-on Courses for the students. e) Act as a link between APAC and college administration. **Frequency of Meeting:** Once in aYear
1.	College Development Committee (CDC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.N.Srikanth	Executive Director	Member	
4.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
5.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
6.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
7.		Dr.B.Prakash	HoD-IT	Member	
8.		Dr.M.Nagendrababu	HoD-MECH	Member	
9.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
10.		Dr.K.Chaitanya	HoD-BS&H	Member	
11.		Dr.P.S.Ravindra	Dean-Admin	Member	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	Designation	Position	a) Accept and review the purchase proposals/quotations received from different departments. b) Conduct the negotiations with suppliers for the best quality & price. c) Make recommendations to the Management for placing the purchase orders. **Frequency of Meeting:** Twice in a Semester
1.	Purchase Committee (PC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.N.Srikanth	Executive Director	Member	
4.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
5.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
6.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
7.		Dr.B.Prakash	HoD-IT	Member	
8.		Dr.M.Nagendrababu	HoD-MECH	Member	
9.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
10.		Dr.K.Chaitanya	HoD-BS&H	Member	
11.		Lab In-charge of Concerned Department		Member	
12.		Sr.Faculty of Concern Department		Member	
13.		Dr.P.S.Ravindra	Dean-Admin	Coordinator	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	Designation	Position	a) Recruit teaching and non-teaching faculty as per the requirement in each discipline fulfilling the cadre ratio of AICTE by following 3-tier procedures (written test/Interview, Teaching Demo and HR skills). b) Define the roles and responsibilities for all positions. c) Analyze recruitment trends and provide feedback to APAC **Frequency of Meeting:** Once in a Semester
1.	Faculty Recruitment Committee (FRC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.N.Srikanth	Executive Director	Member	
4.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
5.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
6.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
7.		Dr.B.Prakash	HoD-IT	Member	
8.		Dr.M.Nagendrababu	HoD-MECH	Member	
9.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
10.		Dr.K.Chaitanya	HoD-BS&H	Member	
11.		Internal Examiner of the concerned Department		Member	
12.		External subject expert		Member	
13.		Dr.P.S.Ravindra	Dean-Admin	Coordinator	

Sl. No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) To post updates regarding activities of college in social networks. b) Contact students to know about their designations, and their employers. c) To arrange guest lectures by the alumni to make the students understand the requirements of the corporate companies. d) Gather the information of passed out students pursuing higher degrees. **Frequency of Meeting:** Once in Year
1.	Alumni Committee	Dr.J.Sudhakar	Principal	President	
2.		Prof.A.Sesha Rao	Academic Director	Advisor	
3.		Mrs.T.Sandhya Kumari	Assoc.Prof-ECE	Vice President	
4.		Dr. Dominic Souri	Assoc.Prof-BS&H	Joint Secretary	
5.		Dr. S Ramesh	Assoc.Prof-MBA	Treasurer	
6.		Sr.Faculty from Each Department		Executive Member	
7.		Dr.Ch.Ramesh Babu	HOD-ECE	Secretary	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) To plan and execute N.S.S. Programmes for the year. b) To conduct Special N.S.S. camp and to submit the audited statement of accounts at the end of the year. c) To distribute the work for the NSS volunteers for maintenance of cleanliness in and around the College. d) To take care of campus beautification and gardening. e) To maintain the records of the activities conducted and submit the same to the IQAC, JNTUK. **Frequency of Meeting:** As and when necessary
1.	N.S.S. Committee	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mrs.M.Dhana L.Bhavani	Asst.Prof-ECE	Member	
4.		Mr.D.Rajendra Dev	Asst.Prof -CSE	Member	
5.		Mrs.T.Sushma	Asst.Prof -EEE	Member	
6.		Mr.S.Sagar	Asst.Prof -IT	Member	
7.		Mrs.P.Prasanna Kumari	Asst.Prof -MECH	Member	
8.		Mrs.T.Suguna	Asst.Prof -MBA	Member	
9.		Dr.K.P.Suhasini	Assoc.Professor-BS&H	Programme Officer	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) To make the students aware of the various schemes / assistance / scholarships available for students. b) To scrutinize scholarship forms of the students and ensure to submit / process the same on time to the respective Department. c) To maintain the records and submit the same to the IQAC Committee. **Frequency of Meeting:** Once in Year
1.	Scholarship Committee	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
4.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
5.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
6.		Dr.B.Prakash	HoD-IT	Member	
7.		Dr.M.Nagendrababu	HoD-MECH	Member	
8.		Dr.M.Pardha Saradhi	HoD-MBA	Member	
9.		Dr.K.Chaitanya	HoD-BS&H	Member	
10.		Mr.K.Rajendra Prasad	Asst.Prof-ECE	Member	
11.		Mr.P.Mohan Ganesh	Asst.Prof-IT	Member	
12.		Mr.S.A.Ramakrishna Raju	A.O.	Member	
13.		Dr.P.S.Ravindra	Dean-Admin	Coordinator	
Sl.No	**Committee Name**	**Name of Committee Members & Designation**			**Duties and Responsibilities**
		Name of Faculty	**Designation**	**Position**	a) To assess the editorial quality of the content to be published which includes programs of the college, information regarding the events organized in the college under various committees. b) To collect the information from staff and students relevant for publication under various headings. c) To get the magazine printed by the end of every quarter in and distribute the same to students and staff **Frequency of Meeting:** Once in every quarter
1.	Institute Newsletter Committee	Dr.J.Sudhakar	Principal	Chairman	
		Prof.A.Sesha Rao	Academic Director	Member	
2.		Dr.P.Sudhakar	Assoc.Prof-ECE	Member	
3.		Mrs.Rahimunnisa Shaik	Asst.Prof -CSE	Member	
4.		Mr.K.Vamsi	Asst.Prof -EEE	Member	
5.		Mr.B.Ajay Kumar	Asst.Prof -IT	Member	
6.		Mr.S.V.Satya Prasad	Asst.Prof -MECH	Member	
7.		Mrs.A.Venkata Lakshmi	Asst.Prof -MBA	Member	
8.		Mr. B.Nagabhusana Rao	Asst.Prof -BS&H	Member	
9.		Mr. S.K.Chaitanya Ch	Asst.Prof - BS&H	Editor	
10.		Dr.T.Radha Kriahna Murty	Professor-BS&H	Chief Editor	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) To maintain and enforce strict discipline within the college campus. b) All the students should wear their ID Cards while they are in the campus and their respective class rooms. c) To monitor the movement of the students in the college. d) To ensure that students maintain complete silence in the library. e) To maintain proper discipline in the college canteen and student waiting room during the college working hours. **Frequency of Meeting:** As and when necessary
1.	Discipline Committee	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Dr.K.V.Ramana Rao	Asst.Prof-ECE	Member	
4.		Dr.P.Vijaya Bharathi	Asst.Prof -CSE	Member	
5.		Mrs.K.Therissa	Assoc. Prof -EEE	Member	
6.		Mr. Ch.Ramasuri A N	Asst.Prof -IT	Member	
7.		Mr.V.Ananda Babu	Asst.Prof -MECH	Member	
8.		Mrs.M.Satyavathi	Asst.Prof -MBA	Member	
9.		Mr.S.Giri Babu	Asst.Prof -BS&H		
10.		Ms.M.Hema V. Lakshmi	Physical Director	Member	
11.		Dr.P.S.Ravindra	Dean-Admin	Member	
12.		Dr.K.Kushal Kumar	Assoc.Prof-EEE	Coordinator	
Sl.No	**Committee Name**	**Name of Committee Members & Designation**			**Duties and Responsibilities**
		Name of Faculty	**Designation**	**Position**	a) To administer data acquisition process, update and maintenance of the institute's website with regard to all activities related to Domain & Hosting. b) To collect information & data reports from various academic departments & internal bodies and timely updates c)To provide feedback and recommendations to the authority with regard to the website maintenance activities from time to time. **Frequency of Meeting:** As and when necessary
1.	Website Maintenance Committee (WMC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.D.Tilak Raju	Asst.Prof-ECE	Member	
4.		Mrs.G.Sandhya	Asst.Prof -CSE	Member	
5.		Mr.K.V.Sri Ram Prasad	Asst.Prof -EEE	Member	
6.		Mr.Gandi Netaji	Asst.Prof -IT	Member	
7.		Mr.A.V.Pradeep	Asst.Prof -MECH	Member	
8.		Mrs.M.Sowjanya	Asst.Prof -MBA	Member	
9.		Mr. K.Ramesh	Asst.Prof -BS&H	Member	
10.		Dr.P.S.Ravindra	Dean-Admin	Member	
11.		Dr.B.Prakash	HoD-IT	Coordinator	

Sl.No	Committee Name	Name of Committee Members & Designation			Duties and Responsibilities
		Name of Faculty	**Designation**	**Position**	a) To create an environment for self-employment, promote innovation and Entrepreneurship development through various programs b) To introduce the concept of Entrepreneurship as a part of the curriculum c) To promote employment opportunities. d) To provide a platform for interaction with entrepreneurs. e) To conduct skill industrial development training programs with updated technologies. **Frequency of Meeting:** Once in every semester
1.	Entrepreneurship Development Committee (EDC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Dr.K.Vijaya Kumar	HoD-CSE	Member	
4.		Dr.Ch.Ramesh Babu	HoD-ECE	Member	
5.		Dr.K.Durga Syam Prasad	HoD-EEE	Member	
6.		Dr.B.Prakash	HoD-IT	Member	
7.		Dr.M.Nagendrababu	HoD-MECH	Member	
8.		Mr.V. Ananda Babu	Assoc. Prof-MECH	Member	
9.		Mr.P.V.Sarat	Asst. Prof- EEE	Member	
10.		Mr.R.Ravi	Asst. Prof- CSE	Member	
11.		Mr.G.Lakshmana	Asst. Prof- ECE	Member	
12.		Dr.S.Ramesh	Assoc. Prof-MBA	Coordinator	
Sl.No	**Committee Name**	**Name of Committee Members & Designation**			**Duties and Responsibilities**
		Name of Faculty	**Designation**	**Position**	a) To give industrial exposure to faculty members and students, thus enabling them to tune their knowledge to cope with the industrial culture. b) To assist the Departments in organizing workshops, conferences and symposia with joint participation of the industries. c) To organize industrial visits for Faculty members and students. d) To assist the Departments in establishing rapport with industries for taking up mini projects and projects. **Frequency of Meeting:** As and when necessary
1.	Industry Institute Interaction Committee (IIIC)	Dr.J.Sudhakar	Principal	Chairman	
2.		Prof.A.Sesha Rao	Academic Director	Member	
3.		Mr.D.Tilak Raju	Asst. Prof-ECE	Member	
4.		Mr.I.Raju	Asst.Prof -CSE	Member	
5.		Mr.K.Vamsi	Asst.Prof -EEE	Member	
6.		Mr.P.Mohan Ganesh	Asst.Prof -IT	Member	
7.		Mr.A.V.Pradeep	Asst.Prof -MECH	Member	
8.		Mrs.T.Suguna	Asst.Prof -MBA	Member	
9.		Dr.P.Sudhakar	Assistant P.O	Member	
10.		Dr.K.V.Ramana Rao	Assistant T.O	Member	
11.		Dr.M.Nagendrababu	HoD-T&P	Coordinator	

10.1.2 (E) Service Rules and Regulations

The Institute has a well-framed Human Resource Policies and Administrative Practices manual consisting *recruitment policies and procedures, duties and responsibilities, service rules and regulations and motivational incentives* which is revised from time to time. The last revision was done and published in October 2019 and displayed in institute website (http://view.edu.in/admsrpp.php). The following are the list of contents of the book.

The human recourse policies and administrative practices manual of the organization is published and kept for everyone's reference in College website. This allows for effective dissemination of the information to the concerned stakeholders. Few of the contents of hand book illustrated below.

A. Service Conditions

The employees in the institute are governed by the service rules and regulations stipulated hereunder.

a) The employees at Vignan's Institute of Engineering for Women have been classified into two categories, namely Teaching and Non- Teaching.

b) The teaching fraternity has an extraordinary role to play in the academic life of VIEW, merely as teachers, researchers, counselors, and contributors in various academic affairs.

c) The Non-Teaching fraternity is responsible to support and enable the academics at the institution.

d) VIEW has various Departments of Engineering, Sciences, and Humanities. Each of these faculties consists of various roles and run under the supervision of Principal.

e) A person shall be deemed to have been appointed to the service when his appointment is made to a post in accordance with the existing AICTE norms.

f) Initially the appointment of the selected candidate will be temporary and placed on probation for a period of two years, after which the performance of the appointee will be

reviewed to regularize the appointment. The period of probation can be extended by management in case of non- satisfactory performance

g) If a person, having been appointed temporarily to a post is subsequently appointed regularly: he / she shall commence probation from the date of regular appointment.

h) Any candidate appointed on temporary / ad- hoc basis, his / her services can be terminated without any notice and without giving any reason.

i) The service conditions of the incumbent will be governed by the rules and regulations of the college issued from time to time.

(i) Custody of Certificates

The employee requires depositing the original certificates (SSC/ Intermediate / UG/ PG) (convocation) with the establishment section prior to or at the time of reporting duty, besides, the copies of experience certificate, relieving letter, salary certificate, PAN, Voter – ID and 4 passport size photographs require submitting.

(ii) Withdrawal of Original Certificates

a. Withdrawal of educational certificates (all or part) for any purpose i.e. higher studies or any other purpose, a proof copy has to be enclosed along with the request letter.

b. An undertaking letter should be submitted stating that she / he will return the certificates within the stipulated time or else salary will be held up for the concerned month till the submission of certificates.

c. Those who are withdrawing certificates for higher studies should submit a copy of custodian within one week of date of issue of custodian.

(iii) Working Hours

a. All employees are required to work for a minimum of 7 hours a day from Monday to Saturday.

b. Working hours notified may be changed as per the requirement of the Institution from time to time and the employees shall comply accordingly.

(iv) Attendance

a. All employees shall mark their attendance through biometrics and in respective Attendance Registers maintained in the office of the College.

b. Employees reporting for duty more than 20 minutes late shall obtain permission from the Head of the Department / Principal. Without a formal permission they are deemed to be absent and will apply for leave.

c. All employees are allowed to avail 2 hour permission in two days during a month. Exceed this liable to be treated as absent for the day.

(v) Meeting with Heads of Departments

Meeting with Heads of Departments is conducted once in a month to brief them about the latest developments in the college and also to get feedback from them regarding fulfillment of various targets set including the academic schedule. Minutes of the meeting shall be recorded and circulated among all the HOD's. Emergency meetings are organized whenever required.

(vi) Faculty Meeting

Total faculty meeting is conducted once in a semester. The agenda of the meeting is circulated among the faculty at least two days in advance to enable the participants to come prepared for a fruit full discussion without loss of time. The minutes of the meeting are recorded and circulated immediately after the meeting. Emergency meeting could be called for whenever required.

(vii) National & Festival Holidays

Institution will notify list of holidays at the beginning of calendar (year) as per the National and Festival Holidays Act.

B. Leave Policy

VIEW provides different kinds of leave to meet with the various eventualities of its employees. Availing of leave should be with proper notice so that the work of the organisation does not suffer. Leave shall not be claimed as a right. Leave sanctioning authorities have to use their discretion in sanctioning the leave so that the effect is minimum on the normal functioning of the college.

General Information:

a) These rules shall be called the "Vignan's Institute of Engineering for Women, Leave Rules".

c) A leave account shall be maintained for each employee in the appropriate form.

d) Leave cannot be claimed as a matter of right. **The sanctioning authority has full discretion to refuse or revoke leave of any description when the exigencies of service so demand**.

f) The sanctioning authority may recall an employee to duty before the expiry of his / her leave.

g) Unauthorized absence from duty may be treated as misbehavior involving disciplinary action.

h) For casual leaves, the HOD shall be the competent authority to grant leave to staff, the Principal shall be the competent authority to grant leave to all Heads. In the case of the Director and the Principal, the Secretary or the Chairman of the Governing Council will be the authority competent to sanction leave.

The following types of leaves are available for staff:

(i) Casual Leave:

a) Every employee is eligible for 10 days of casual leave in a calendar year.

b) Casual leave cannot be availed without obtaining prior approval. Sanction of casual leave shall be subject to work adjustment.

c) The total period of absence on casual leave at a time, with or without combination of public holidays and compensatory casual leave shall not exceed 8 days.

d) Casual leave can be combined with public holidays and compensatory casual leave, but not with any other kind of leave or vacation.

e) Casual leave up to Two Days shall be sanctioned by the HOD subject to prior notice i.e. at least before one day.

f) CL for more than Two Days shall be sanctioned by the HOD subject to prior intimation of at least one Week.

g) Casual leave for more than Two Days where sufficient notice period of one week is not provided by the employee may only be sanctioned by the Principal under extraordinary situations subject to prior intimation of at least one day.

h) Un-availed leave shall not be carried over to the next calendar year. It means that the casual leave may not be accumulated.

i) In case of employees still serving the probation period, Casual Leave shall be sanctioned on pro-rata basis. It means that they shall be eligible for a maximum of one day of casual leave for every $1_{1/3}$ month of completed service subjected to a maximum of 10 days in a calendar year. This condition shall not be applied to permanent employees.

j) Casual leaves for half day can be granted to an employee for the Forenoon or Afternoon session.

(ii) Earned Leave:

a) All the permanent employees are eligible for 6 days of earned leave per every calendar year of completed service

b) EL for a given calendar year shall be credited on the 1st of January of the following year provided that the staff should have completed **Two years** of uninterrupted service at VIEW by that time.

c) Earned Leaves can be accumulated up to 120 days.

d) Earned leave cannot be combined with casual leave or compensatory casual leave, but can be combined with pre-vacation and all other kinds of leaves. The maximum availability of earned leave utilization at a continuous stretch is 50% of overall ELs or 15 leaves whichever is less subject to a minimum of 3 ELs sanctioned by the HOD subject to prior intimation of at least one week. There should be a minimum 1-month gap between one slot to another slot for usage of ELs.

e) However, if such maximum exceeds the available EL count, then the eligibility is the total available EL count.

f) Accumulated leaves cannot be encashed at the time of working but can be encashed at the time of leaving the Institution.

g) Principal is the authority to sanction earned leave to all faculty members.

(iii) Maternity Leave:

a) All the women permanent employees are eligible for 120 days of paid maternity leave provided that they have completed probation service by the date of application.

b) A woman permanent employee is eligible for maternity leave only twice in her entire service.

c) Principal shall sanction maternity leave to all the women employees provided that the staff should apply with the prior notice of at least one Month.

d) The salary for the period of maternity will be paid out in six equal installments after six months uninterrupted service from the date of rejoining. The employee should submit the Birth Certificate of the child at the time of rejoining.

e) No leave beyond the expiry of maternity leave will be granted. However, in exceptional cases where the female employee is not in a position to join duty immediately on expiry of maternity leave due to weakness or other illness, leave without pay not exceeding 30 days may be granted on production of medical certificate. Further leave beyond 30 days may be considered at the discretion of the GC/Committee.

(iv) Paternity Leave:

a) All the men permanent employees are eligible for 7 days of paid paternity leave provided that they have completed probation service by the date of application.

b) A man permanent employee is eligible for paternity leave only twice in his entire service.

c) Paternity leave may be utilized only within a month of the date of birth of the child.

d) Principal shall sanction paternity leave to men employees provided that the staff should apply with the prior notice of at least one Month.

e) The salary for the period of paternity leave will be paid out after submitting the Birth Certificate of the child.

(v) Marriage Leave:

a) All the Permanent employees are eligible for 15 days of marriage leave.

b) Principal shall be the sanctioning authority to all the employees provided that the staff should apply with the prior notice of at least one Month.

c) The salary for the period of marriage leave will be paid out after submitting the Marriage Certificate.

(vi) Academic Leave:

a) All teaching staff members are eligible to attend two reputed conferences per year.

b) Academic leave may be sanctioned for attending conferences, seminars and workshops etc. which help the faculty to achieve professional growth.

c) Principal shall sanction academic leave to all the faculty members. However, the staff should submit necessary proofs such as the event invitation along with the application.

d) All permanent staff members, who are at the verge of submitting their Ph.D thesis, may apply for one month of academic leave after pre-talk. However, such candidates should submit a proof of pre-talk proceedings for availing leave and proof of submission of thesis

within three months from the date of application of the leave failing which the academic leave will be deducted from all other eligible leaves.

e) The salary for the period of such doctorate thesis submission based academic leave will be paid out after submitting the proof of thesis submission.

(vii) On Duty:

a) On duty for spot valuation shall be sanctioned only twice in a semester or a Maximum of 15 days per year whichever is applicable.

b) On duty for any other Examination related works like observer, Lab external duties should not exceed 5 days in a year. If, exceeds 5 days the approval of HOD/Principal is mandatory.

c) In addition to the above, "on duty" for any works assigned by HOD/Principal/Management may be approved by Principal. However, the staff should submit necessary proof of evidence along with the invitation/work/assignment.

(viii) Emergency/Medical Leave:

a) Every permanent employee is eligible for 8 days of Emergency/Medical leave in a calendar year.

b) Un-availed medical leave shall not be carried over to the next calendar year. It means the Medical leave shall not be accumulated.

c) Medical leave cannot be claimed as a matter of right and sanction of Medical leave shall be subjected to severity of Health condition. That means prior approval/sanction is required or Evidences can be submitted within one week of reporting to the institute post the illness.

d) Medical leave up to One Day shall be sanctioned by the HOD/Principal after completion of all casual leaves.

e) Medical leave for More than One Day shall be sanctioned by the Principal only. However, the staff should intimate in-advance to the HOD & Principal wherever possible and also submit the necessary proof of evidences for medical illness within one week of reporting to the institute post the illness.

f) Medical leave for a period exceeding 8 days shall be approved at the sole discretion of the principal in consultation with the management.

(ix) Compensatory Casual Leave:

a) All the employees are eligible for compensatory casual leave if they have approved "OTs".

b) The staff who has worked at least 6 continuous stretch or cumulative hours assigned/authorized by HOD/Principal/Management in holidays shall be sanctioned "OT". The approved OT shall be compensated with CCL during the same calendar year.

c) Principal is the sole approving authority for OTs in consultation/approval of the HOD

(x) Extra-ordinary Leave:

a) Extra-ordinary leave may be granted to the employees on the recommendation of the Governing body on private affairs or academic affairs like short / long term assignments in India or abroad/Higher studies/Fellowship etc. They will not be entitled for any pay or allowance during this period.

(xi) Special Casual Leave:

a) All permanent employees are eligible for special casual leave not exceeding 6 days for the purpose of undergoing Family Planning Operation. He/she is required to produce proof of having undergone the operation for regularizing the leave availed.

b) Any humanitarian grounds issues such as miscarriage/loss of immediate family members may be also considered for special casual leave.

c) Principal, in consultation of the management, shall be the sole authority to sanction Special Casual Leave.

(xii) Study Leave

a) An employee may be granted study leave to enable him to undergo part time higher studies or course work or specialized training in a professional or technical subject and close connection with the branches of study relevant to the College and has bearing on the candidates' area of specialization.

b) Study Leave shall not be granted to one, whose absence will cause cadre-difficulties, besides dislocation in the regular work of the college.

c) In case candidate pursues Ph.D. on part – time basis, study heave will be granted to fulfill the mandatory course work as stipulated by the University. The candidate may be given half pay during the study leave.

d) An employee availing himself of study leave for pursuing higher studies, shall furnish a bond in the prescribed form and on stamped paper to serve the College on return to duty

they must serve in the College for a minimum period of one year. Otherwise, they have to pay double of salary received during the study leave.

e) They should make alternative arrangements for their theory and lab classes with prior approval. SL permission will be granted only if they make alternative arrangement for their classes, through a teacher handling subject for the same class.

(xiii) Summer Vacation:

a) Principal will be the competent authority to fix/suffix the summer vacation schedule in accordance with JNTUK schedule wherever applicable.

b) Each department has to maintain a skeletal staff to attend department works like invigilation duties, class work and other works assigned by HOD/Principal during the vacation as determined by the Principal.

c) Schedule of vacation for all the employees in a department is to be approved by the HOD.

d) By the time of declaring vacation, the staff should have at least 1 year of uninterrupted service at VIEW to avail summer vacation.

e) If any faculty attend spot valuation or engaged with any other examination related duties during the vacation, all those days will be included in summer vacation. No extra days will be allowed.

f) Vacation Eligibility criteria for Permanent Teaching staff:

One-week Vacation	The staff members who have >=1 and <2 years of service at Vignan Group.
Two-week Vacation	The staff members who have >=2 and <3 years of service at Vignan Group.
Four-week vacation	The staff members who have >=3 years of service at Vignan Group.

(xiv) Other terms & conditions:

a) Permanent Employee: An employee is considered to be permanent on completion of one year of uninterrupted service in the institute.

b) Temporary employees are not eligible to avail any kind of extraordinary leaves except casual leaves, academic leaves and On-duty.

c) The total number of staff availing "CL" of any department at any given point of time should not exceed 1/3rd of the total staff of the same department at such instance.

d) If any employee would like to leave the organization by giving one-month notice, they will not be allowed to avail any type of leave except available CL as per pro-rata. If they use extra leaves, loss of pay will be implemented. They can compensate the extra leaves by working extra days to avoid loss of pay. One-month notice can be exempted by the Principal if staff resigned at the end of semester/academic year.

e) Employees are advised to contact HR department to know the leave record and then apply for leave.

f) Prefixing and Suffixing of Holidays: The leave under these rules (except casual leave) may be either prefixed or suffixed or both by Sundays/holidays but the intervening Sundays /holidays shall be included in such leave.

g) Over Staying after Leave: An employee who remains absent after the expiry of his/her originally granted or subsequently extended leave is not entitled to salary for the period of absence including sanctioned leave period.

C. Recruitment Policy & Process

(i) Objective

To have in place a competent staff selected on the principles and practices of equal opportunities with due representation to all sections of people represented by the organisation and with no discrimination on the basis of caste, creed, sex, race, or disability. All recruitment will be based on predetermined specific positions and competency.

(ii) General Criteria Governing Recruitment

a. The minimum age for recruitment is 18 years. VIEW does not permit child labour in any of its establishments nor does it encourage child labour in any of its partner institutions.
b. Age limit of up to 70 (Seventy) years for teaching staff and 65 (Sixty-Five) years for non-teaching staff is recommended. If service is required beyond the recommended age limit, it may be extended on an annual basis.
c. VIEW reserves the right to do a background check on any person selected for employment.
d. Persons selected for appointment should possess sound mental and physical health.

e. Faculty Members are recruited based on the qualifications prescribed by AICTE Regulations, 2019 and subsequent amendments in these Regulations issued by AICTE from time to time.

f. Non-teaching faculty/Administrative staff is recruited as per the state government's norms. At present the following criterion is being followed.

(iii) Internal Appointments

In order to avoid stagnation of the competent employees and encourage career growth, Management should develop mechanism for creating avenues for growth/promotion.

When a vacancy arises, internal appointment may be promoted as far as possible. But this is purely at the discretion of the E.D and Principal who may assess the situation objectively on the basis of the merits of the fresh requirements and actual staff position.

(iv) Advertisement

a. The Dean of Administration will be responsible for initiating action such as advertising for the vacancy.

b. For regular and contract posts, it is mandatory to advertise the vacancies in the newspaper or VIEW website (www.view.edu.in).

c. There should be a minimum of 10 days between the date of publication of the advertisement and interview.

(v) Short listing

a. All applications are scrutinized to ensure that they conform to the minimum requirements of the position.

b. Persons given as reference in the application may be contacted to further refine the short list.

c. For a single post, from the suitable applications received, an appropriate number will be called for the interview process.

d. Intimation for interview is sent thereafter.

(vi) Assessment process

The assessment process for teaching staff recruitment shall have all of the following assessments:

Round-1: Written Test

Round-2 Technical Round (Demo in front of Panel Members)

Round-3: HR Round (With Executive Director)

[It is only for shortlisted candidates from the above rounds].

(vii) Interview Panel

The interview panel must meet in advance in order to prepare and agree questions, tests etc. to be asked to candidates and to ensure that similar questions and the same range of topics will be covered for each candidate for the same position.

For the test and interview – the appropriate panel must be constituted which should have subject specialists. The final interview panel will comprise of the appointing authority and subject specialists.

(viii) Proceedings of Interview

Detailed proceedings of the interview will be recorded by the Chairperson of the Interview Board and will be attested by the Interview Board Members.

(ix) The Offer Letter

Upon satisfactory performance of the candidate, the Offer Letter is sent to the selected candidate. Candidates should confirm their acceptance in writing. A regret letter might be sent to candidates not found suitable during the interview.

(x) Letter of Appointment

The selected candidate must bring the relieving order from the previous organisation before joining duty. An appointment letter duly signed by the Appointing Authority is issued to the candidate at the time of joining.

(xii) Joining Report

On joining, the candidate should give the joining report and signed by the Principal and forwarded to the Main Office.

D. Staff Appraisal Policy

(i) Purpose

In an effort to recognize and reward the performance of employees, it is the organization's philosophy that the principal component to enhance compensation shall be through annual increment based on performance evaluation by APAC.

(ii) Application of the Policy

a. The policy applies to all teachers, including the Head of the Departments, employed by the Institution except those who have less than one-year service.

b. All regular employees are eligible for yearly increment based on the results of their Performance Appraisal conducted annually.

c. All employees will be informed in writing about their annual increments after the Performance Appraisal.

(iii) General Principles Underlying this Policy

The performance of staff assessed through **3 criterions** for the purpose of annual increment.

Criteria No.	Element of Criteria	Max. Score	% of Weightage
I	Academic Results & Feedback	4 Marks	40%
II	Research & Development	3 Marks	30%
III	Supplementary Activities	3 Marks	30%
Total		**10 Marks**	**100%**

Criterion -1 is mainly focused on the academic performance of staff which covers the teaching related activities, domain knowledge, semester results and students feed back in an academic year.

Criterion -2 is mainly considered the faculty output in Research and Development activates in an academic year. Based on cadre of faculty, the expected output of R&D shall be categorized. R & D activities includes Research papers published in scholarly journals, Book publications, research projects, consultancy projects, organizing and attending conferences/seminars, workshops and FDPs.

Criterion -3 covers curricular and extracurricular activities, counseling/mentoring of students, roles and contributions in Institutional Governance and administration, awards and achievements and Professional Development Activates.

The detailed evaluation procedure of each criterion is given in Institution manual.

(iv) Grant/Award of Annual Increments:

Increments shall be sanctioned by the Management as recommended by the Principal. The grant of number of increments is based on the score secured by the faculty out of the total score of 10.

Secured Score	Grade	No. of Increments
>= 7.5	A+	3 (Three)
<7.5 & >=6.5	A	2 (Two)

<6.5 & >=5	B	1 (One)
<5	C	No Increment

(v) Special Allowance

a. Teaching Staff with a cadre of Assistant Professor secured <6.5 & >=5 marks (1 increment) and secured full marks in results as per Criteria-1 (3 out of 3), the faculty will be given a onetime special allowance of Rs.5,000/-

(vi) Termination/Serving Notice to Teaching Staff

a) If a teaching staff falls in 'B' grade in 2 continuous years, the Management/Principal have right to terminate or service one month notice to staff for termination due to lack of improvement in performance.

b) If a teaching staff falls in 'C' grade, the Management/Principal have right to terminate the faculty immediately or service one month notice to staff for termination. In special cases, the Principal shall allow an opportunity to improve the performance with in one academic year.

(vii) Letter of Annual Increment:

All employees will be informed in writing about their annual increments after the Performance Appraisal.

E. Staff Promotion Policy

Any progressive institution should make sufficient provision for the satisfactory promotion of personnel to higher positions. Opportunity for promotion to higher positions within an organisation gives personnel an opportunity to fully utilize their abilities and therefore serves as a basis for motivation.

General Principles underlying this Policy

- ✓ The promotion of an employee is purely based on the merit cum seniority basis and vacancy position in the concerned department.
- ✓ All promotions shall be subject to completion of minimum qualifying period and other requirements such as employee's current academic performance, their research work, number of publications, commitment of the staff to the improvement of the institution etc.
- ✓ Promotion shall not be influenced by the employee's race, religion or gender.
- ✓ The promotion from Assistant professor to Associate Professor and Associate Professor to Professor post are purely vacancy based.

- ✓ Promotion are considered by a Committee consisting of the following:
    - Principal of the college concerned
    - Principal of another college within the group
    - HoD of the Department concerned
    - One Senior Professor of the Department and college concerned
    - HoD/Two Senior Faculty of concern Department of another college within the group
- ✓ The Screening Committee will review the performance appraisal, academic performance and other capabilities of each candidate and personally interview the candidates.
- ✓ The Committee, based on the above factors, shall prepare a list of candidates recommended for promotion in the order of merit and submit for approval. The list will be placed before the Governing Council along with the Service Register of the individuals for approval. The approved candidates shall be promoted from the rank of Assistant Professor to Associate Professor or Associate Professor to Professor.
- ✓ Those who are promoted shall be placed in the pay scale applicable to that category.
- ✓ All decisions on promotions shall be taken up in the month of June-July every year. However, the revised pay will be implemented with effect from the date of acquired Doctorate Degree/Submission of Provisional Certificate in case of Associate Professor and date of next increment due in case of Professor.
- ✓ Filling up of any post's consequent to retirement, resignation, termination, cessation of employment, transfer, demotion, promotion etc. of permanent incumbent shall not be automatic and will be done at the discretion of the Chairman/CEO/Principal.
- ✓ For Non-Teaching staff, time-bound Grade Promotions as stipulated in the Pay Revision will be granted.

F. Welfare Facilities for Staff

(i) Provident Fund

VIEW is committed to comply with statutory provisions of Employees Provident Fund Deduction will be made from the salary of employees and will be deposited to the designated provident fund accounts along with the contribution of the organisation as per the provisions of the said Act. Employees must comply with the statutory requirements like nomination and can avail of such ensuing benefits as prescribed by law.

(ii) Employees State Insurance (ESI)

For Non-teaching Technical and Admin Staff - Employees State Insurance benefit (ESI) is covered for those employees who are coming under the purview of the ESI Act, 1948. The ESI benefits are Medical benefit, Sickness benefit, Maternity benefit, Disablement benefit, Dependents benefit, funeral expenses and other benefits.

(iii) Group Medical Insurance

To provide employee welfare through basic assurance of healthcare to employees and help them to meet unforeseen personal expenses arising from medical emergency. All regular and contractual employees of the Institute, including probationers will be covered. Annual entitlement of Group Medical Insurance is Rs.5,00,000/- (Rupees Five Lakh only). This can be used only by the individual or by the family members covered under this policy.

(iv) Subsidized Transport Facility

The institute buses are running on "No profit – No loss" basis.

- All the staff members who are drawing a salary of less than Rs.15,000 will be provided a free transport facility.
- The staff who are drawing a salary of above Rs.15,000 but less than Rs.20,000 will be given 50 per cent concession in transport charges.
- The staff who are drawing a salary of above Rs.20,000 will be given 40 per cent concession in transport charges.
- The applicable bus fees will be deducted from the salary of faculty.

(v) Free boarding and Lodging

Free boarding and lodging for certain faculties, Staff holding students hostel coordinator/student hostel sports coordinator/Assistant Warden Post.

(vi) Free Tea / Coffee is provided to the Teaching, Non-Teaching and Administrative staff during both the sessions.

(vii) Non-Teaching staff, Maintenance Staff and the Drivers are given free gifts, sweets and cloths during Deepavali festival.

(viii) Travelling Allowance:

Travelling allowance is in the nature of reimbursement of reasonable expenses incurred by the employee while travelling and halting at an outstation on official duty. All journeys shall be authorized by the competent authority i.e. Principal and necessary approval shall be obtained prior to proceeding on an official tour.

The Principal may sanction TA advance subject to the maximum of 75% of the expected expenditure. The mode of travel applicable, the daily allowance payable and the rates of local conveyance and accommodation charges reimbursable to various categories of employees are as follows.

Mode of Travel:

1. Director/Principal/Vice Principal - Airfare/First A/c
2. Professor/HOD - Second A/c
3. Associate Professor - Third A/c
4. Assistant Professor - Sleeper

Reservation charges, AC/Super fast surcharge, cancellation charges, bedroll charges are reimbursable. Normal service charges for booking of tickets by travel agent are admissible.

The institution may reserve and book to and fro air tickets through local travel agents. For rail and bus tickets, the person intending to travel may take necessary advance for booking such tickets.

(ix) Daily Allowance& Reimbursement of Accommodation

Cadre	Daily Allowance (Per day)	Reimbursement of Accommodation (Per day)
Director/Principal/ Vice Principal	Rs.500	Rs.2000
Professor/HOD/Associate Professor	Rs.300	Rs.1500
Assistant Professor	Rs.200	Rs.800

(x) Local Conveyance:

Local Conveyance is applicable to the faculty who wish to attend WS/Conference/ FDP or any other duty assigned by Principal within the limits of the city. Travelling Allowance, DA and accommodation not applicable.

Director/Principal/ Vice Principal	Professor/HOD/Associate Professor	Assistant Professor
Rs.1000 per day	Rs.500 per day	Rs.300 per day

G. Motivational Initiative Polices

It is a natural thing that nobody acts without a purpose behind. Therefore, a hope for a reward is a powerful incentive to motivate employees. Besides monetary incentive, there are some other stimuli which can drive a person to better. This will include job satisfaction, job security, job promotion, and pride for accomplishment. Therefore, incentives really can sometimes work to accomplish the goals of a concern. Therefore, management is offering the following categories of incentives to motivate employees:

(i) Faculty Awards

The institute shall offer incentives in the form of Cash awards, Mementos, Certificates to staff. The policy of incentives and the eligibility conditions should be made known to all the concerned and all announcements in this regard will be made public. The following incentives shall be operative.

1. Pratibha Award:

"Academic Excellence Awards is a very commendable initiative". It is very positive to have this common organization at VIEW at to award all-round efforts in academic excellence. Staff who makes an outstanding contribution to teaching & learning are awarded with "Pratibha (The Best Teacher) Award". The award winners will be honored with a certificate and a cash award of Rs.5,000/- each.

Parameters considered for assessment:

- ✓ It will be rewarded subject wise i.e. the subject result during the academic year should be more than 5% of the last 3 years average result of the same subject (Or) the subject result must be 100% during the present academic year.
- ✓ Students feedback should be above 90%

2. Sastra Award:

To encourage and appreciate research, Sastra Awards are presented to VIEW faculty who make a mark in research publications and presentations. Faculty research work is honored with cash awards for their outstanding contributions.

3. Vishista Seva Award:

Employee's retention is one of the strengths of VIEW. All teaching and non teaching staff of VIEW who served the organization for about Ten years and more in Vignan Group are

recognized for their service and are presented with Vishista Seva Award with a cash award of Rs.5000/-

4. Vijetha Award:

Faculty at VIEW are recognized and honored for their individual academic and related achievements in their respective domains. Vijetha awards are presented to those faculties who have achieved awarded and recognitions in State/University/ /National/International Level are presented with Vijetha Award.

(ii) Research Incentives

At Vignan's Institute of Engineering for Women, Research is an integral part of the academic activity carried within various undergraduate and postgraduate programs. These different activities and initiatives over the last one decade are consolidated to prepare this Policy of VIEW on Promotion of Research & Innovation, Consultancy & Extension Services.

1. Incentive for book publications

1. Full text book with single author : INR 20000
2. Full text book with two authors : INR 10000 each author
3. Full text book with multiple authors : INR 5000 each author
4. Chapter Contribution : INR 3000

Note: Published book or chapters or monographs must have 'VIEW' as the affiliation.

2. Incentive for Research Publication

If a research paper is published based on his/her work in hard copy or in electronic form in a refereed journal, he / she will pay an incentive as indicated below.

SCI Journal	10000
Un paid Scopus Journal	7,500

The publications will be considered only if they are indexed in Web of Science or in Scopus. If the paper is contributed by more than one author the incentive will be shared among the faculty

(iii) Incentives for Presentation of Research Papers in Conferences/Seminars in India

- ✓ The International/ National conference must be of repute (viz. IEEE, Springer/Wiley etc.) and the hosting Institutions must be of Institutes of repute-IITs/IISc/NITs/IIITs/ Universities/ Deemed Universities etc.
- ✓ The paper/article must be published in any National/International Journal/Conference proceedings.

- ✓ The faculty would be allowed OD + Registration fees on actual basis or Rs. 5,000/- whichever is less.
- ✓ TA/DA will be paid as per the Institute norms.
- ✓ In case of joint authorship only one faculty can avail the facility.
- ✓ Each faculty can present research papers in Conferences of repute twice in an academic year with financial assistance (limited to Rs. 10,000/- only).
- ✓ Maximum number of ODs is limited to one week during lean period. Number of ODs during the academic period is subject to prior approval of Principal.
- ✓ Only Oral presentation of research papers is acceptable.

(iv) Incentives for Presentation of Research Papers in Conferences outside India/Abroad.

- ✓ The faculty has to approach AICTE (which provides 100% funding subject to meeting their norms) for Travel Grant or other Funding Agencies of Govt. of India.
- ✓ It has been observed that some of the proposal may not meet AICTE norms besides paucity of funds with them because of their All India Scope. Therefore, VIEW may also consider funding for International Conferences on case to case basis, subject to 60% to be paid by the candidate and 40 % by VIEW with the candidate having at least 5 years service in VIEW. Also, the candidate should register for Ph.D after coming as soon as possible.
- ✓ The staff who wish to apply for incentives for paper presentation in the International conferences abroad need to get approval from Chairman/CEO at least one Month in advance.

Note:

1. The Incentive under the category of Presentation of Research Papers in Conferences in India/Abroad (6.3 & 6.4) will be paid only after submission of duly filled application and attaching copies of evidence countersigned by the HOD and R&D Coordinator.
2. However the faculty can apply for travel advance to the maximum of 75% of the expected expenditure subject to approval of the Principal.

(v) Incentives for attending Workshops/FDPs

- ✓ The Workshops/Symposium/FDPs hosting Institutions must be Institutes of repute-IITs/IISc/NITs/IITs/IIM/Universities/Deemed Universities etc.

- ✓ The faculty would be allowed OD+ Registration fees on actual basis or Rs. 5,000/- whichever is less, when the Workshops/Symposium/FDPs have minimum of 3 days duration.
- ✓ The faculty would be allowed OD+ Registration fees on actual basis or Rs. 3,000/- whichever is less, when the Workshops/Symposium/FDPs have less than 3 days duration.
- ✓ TA/DA will be paid as per the Institute norms.
- ✓ Each faculty can attend Workshops/ Symposium /FDPs of repute twice in an academic year with financial assistance. However, financial assistance is limited to Rs. 10,000/- only.
- ✓ Maximum number of ODs is limited to one week during lean period. Number of ODs during the academic period is subject to prior approval of Principal.
- ✓ Minimum service clause is not applicable to attend conference/symposium/FDP
- ✓ Faculties going for attending FDPs outside need to disseminate knowledge / information by organizing faculty Development Program (FDP)/ Student Development Program (SDP)/ Student Workshop/ Summer etc for the benefit of Faculty and Students in their respective departments.
- ✓ The OD and Registration claim under Research Incentive Schemes (RIS) of VIEW must be made within a month in the prescribed form.

(vi) Incentive for Generation of Research Grants

- ✓ Faculty members are expected to submit proposals for research grants from funding agencies. It is quite likely, that these projects may involve modernization of laboratories, acquiring of equipment required specific to the research study or conducting of surveys etc.
- ✓ The incentive will be linked to the total amount of research grant sanctioned by the sponsoring agency. The incentive will be 20% of the research grant received from the funding agency.
- ✓ Since the amount being released in phases, the incentive(s) paid is also proportional to the amount received by the Institute.

(vii) Incentive for Consultancy work

To encourage genuine consultancy work from the faculty, VIEW announces a policy whereby the faculty can claim 100% of the amount charged under the consultancy work. This is subject to the following conditions:

- ✓ Faculty should be the sole in-charge of the consultancy work
- ✓ The said consultancy work should be undertaken post the approval of the principal and the agreement should be undertaken between VIEW and the concerned third party
- ✓ The payment for the consultancy work should be credited to VIEW which will further be passed on to the faculty.

(viii) Incentives for Professional Body Membership

- ✓ All faculty members on roll of VIEW having more than Five SCI/ SCOPUS research papers, acquiring membership for National and International professional societies are eligible for reimbursement of 50% of cost of membership registration fee subject to Maximum of Rs.10,000.
- ✓ Maximum of Rupees Ten Thousand (Rs. 10,000) will be paid for International society membership and Rupees Five Thousand (Rs. 5,000) for National society membership and Rupees Two Thousand (Rs. 2,000) for State Level Membership.
- ✓ Incentive claim under Research Incentive Schemes (RIS) of VIEW must be made within a month of registration with the professional bodies.

(ix) Incentives for Research Awards/Any recognition received by the faculty from reputed Professional Bodies and Agencies (For which Vignan has not provided any funding)

Awards Received from Agencies	International Level	National Level	State level	University Level
Incentive (INR)	10000	5000	2000	1000

(x) Incentive for Doctoral Research Guidance

Description	Supervisor	Co-Supervisor
Incentive	10000	5000

H. Staff Exit Policy

The purpose of this policy is to identify academic, organizational or human resource factors that have contributed to an employee's decision to leave the employment. This also helps to enable the management to identify any trends requiring attention or any opportunities for improving the

management's ability to respond to employee issues. It enables the Institute to improve and continues to develop recruitment and retention strategies aimed at proper talent nurturing/management.

This policy covers the procedures to be adopted when any employee of the Institute leave employment for whatever reason.

Scope:

This policy applies in the case where in the employees who resign and get relived after serving or getting the notice period served.

Objectives of the Policy:

The purpose of conduction of the exit interview is to:

a) Try and retain the employee by addressing his/her grievance and expectations

b) Try and find out exact reasons for resignation and

c) To suggest to Management remedial measures to reduce further attrition.

Voluntary Participation and Confidentiality

Employees are responsible for participating in the exit interview process on a voluntary basis. If an employee chooses to participate in an exit interview, he/she will be encouraged to be honest, candid, and contractive in their responses. The information received through Exit Interviews will be confidential. No specific information that could possibly be traced back to an ex-employee will be disseminated or discussed.

Exit by Resignation

a) If any staff member wants to resign from the job, the concerned staff member shall give a minimum of one month / 30 days advance notice or as per the conditions specified in the appointment order about his / her intention of leaving job, only at the end of the academic year to the Principal in writing.
b) In case, where the end of notice period falls during the course of a semester, he / she may be relieved only at the end of the semester.
c) The un-availed leave at the credit of the staff member shall not be adjusted towards the notice period.
d) In case if, he / she takes leave for a day, then the leave availed will be treated as on loss of pay with the cut in the salary for the day during the notice period.

e) While getting relieved, files, materials and documents, etc., entrusted to him / her shall be handed over to the person nominated by the HOD under proper acknowledgement.

f) The staff member can apply for his/her the relieving order from the Institution only after the submission of "No Dues Certificate" in the prescribed form along with a copy of handing over charge record in case if he/she happens to be in-charge of the laboratory.

g) Any staff member may be relieved immediately if he / she gets a Government Job or the concerned individual's spouse is transferred or he / she is getting married. But this is subject to the discretion of the management after assessing the merit of the request.

h) The Principal reserves the right to waive – off / reduce the notice period.

i) The Principal will arrange an Exit interview with the staff after the acceptance of his/her resignation with a view to obtain a candid feedback.

Exit by Termination

a. The Institution may terminate the services of an employee under special circumstances, such as reduced workload, performance not satisfactory as seen from the feedback and report of HODs, or if found medically unfit, after giving one month notice or pay in lieu thereof.

b. No such Notice shall be necessary, if the termination is as a result of proven misconduct after an enquiry conducted in accordance with the college Rules**.**

Procedure and Reporting of Policy:

1. A committee comprising of Academic Director, Principal and Dean of Administration should conduct the exit interview after the confirmed leaving date has been received by HR Department of any particular staff member.

2. The employee will be asked a standard set of question and given a chance to discuss additional information they feel would be beneficial for the Institute working.

3. Academic Director, Principal will fill the exit interview form in prescribed format (Annexure-II).

4. The information will be analyzed regularly by Human Resources Department to identify areas or determine trends that may need to be addressed. Periodically, human resources Department will share their analysis and recommendations with designated members of the Staff/Dean-Admin/Principal/Academic Director.

5. The analysis and review will include

- Appropriate statistical information regarding the number and distribution of employee departures during the preceding year and her/his reasons for leaving;
- An analysis and discussion of any trends or common themes which are suggested by the exit interview feedback.
- A summary of any actions or interventions taken during the year on the basis of exit interview information.

Issue of Service Certificate:

Every permanent employee shall be entitled to a Service Certificate at the time of leaving the service of the Institution. Such Certificate shall be valid if it is issued and signed by the Principal.

10.1.3. DECENTRALIZATION IN WORKING AND GRIEVANCE REDRESSAL MECHANISM (10)

(List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee)

10.1.3 (A) Decentralization in working:

A core team of about 20 members owns and lead the major processes in the institute to see that all these processes are intact. The responsibilities of the decision makers are discussed in Table 10.9. In decentralization every member has freedom for their responsibilities, which helps in speedy completion of assigned tasks.

Table 10.9 List of faculty members who are administrators/decision

Sl. No	Name	Responsibility
1.	Prof.A.Sesha Rao	Academic Director
2.	Dr.J.Sudhakar	Principal
3.	Dr.P.S.Ravindra	Dean of Administration
4.	Dr.B.Prakash	Head of Department-Information Technology
5.	Dr.K.Vijaya Kumar	Head of Department-Computer Science & Engineering
6.	Dr.K.Durga Syam Prasad	Head of Department-Electrical & Electronics Engineering
7.	Dr.Ch.Ramesh babu	Head of Department-Electronics & Communication Engg.

8.	Dr.M.Nagendrababu	Head of Department-Mechanical Engineering
9.	Dr.K.Chaitanya	Head of Department-Basic Sciences & Humanities
10.	Dr.M.Pardha Saradhi	Head of Department-Master of Business Administration
11.	Mr.A.Ganapathi Rao	In-charge: Examinations
12.	Dr.Akanksha Mishra	Coordinator-IQAC
13.	Dr.M.Nagendrababu	In-charge- Training and Placements & Coordinator-R&D
14.	Mr.I.Raju	In-charge- System Cell
15.	Dr.S.Ramesh	In-charge- Entrepreneurship Development Cell
16.	Dr.K.Kushal Kumar	In-charge- Discipline Cell, Library & Physical Education
17.	Dr.K.Jyothsna	In-charge- Women Grievance & Anti-Sexual Harassment Cell
18.	Mrs.S.Kalyani	In-charge- Grievance and Redressal Cell (GRC)
19.	Mr.K.Suryanarayana Rao	In-charge- Anti Ragging Cell
20.	Mr.Y.Sai Krishna	Campus Manager

10.1.3 (B) Mechanism of Grievance Redressal Cell

The Institution has set up the following cells to address any grievance received from students and staff and recommends appropriate action to the authorities.

(i) Grievance and Redressal Cell (GRC)

(ii) Anti Ragging Cell (ARC)

(iii) Women Grievance & Anti-Sexual Harassment Cell

(i) Grievances Redressal Cell (GRC)

As per All India Council for Technical Education Establishment of Mechanism for Grievance Redressal Regulations, 2012, F. No. 37-3/Legal/2012, dated 25.05.2012. Vignan's Institute of Engineering for Women is committed to providing a harmonious & fair learning environment. Students and Staff have access to processes that allow for appeals, complaints and grievances that are to be resolved. Student and staff grievance resolution process seeks to facilitate their formal resolution of grievances as close as possible to the source of the aggrieved person's dissatisfaction, though there will be instances when either students may choose to lodge a formal appeal or a grievance needs to go to a higher authority for resolution.

The institute has the following mechanism to analyze the grievances.

1.Suggestion boxes are placed on all corridors in the Institute to lodge the feedback/complaint/suggestion of all stakeholders.

2. The committee should meet once in a month to investigate the complaints raised by students and staff, if any.

3. The duty of Grievance Redressal Cell is to provide a fair representation for all the concerned parties.

3. During the course of the investigation, the investigator will maintain careful notes of interviews with the aggrieved member and relevant witnesses.

4. In addition to the written statements and testimony of the student and the faculty member, the committee may collect and consider any information it deems relevant and hear from anyone it deems to have relevant information. Both the student and faculty member may suggest the names of persons with relevant information, but the committee makes the final decision about whom to interview.

5. The proceedings and the committee's deliberations will be confidential and not to be open to the public.

6. After investigation upon grievances received, the committee members prepare a report and forwarded to Principal for further action.

7. Thereafter, the principal on reviewing and understanding the level of the problem forwards the same to the management committee for necessary action.

Table 10.10 Composition of Grievances Redressal Cell

Sl.No	Name of the Staff	Designation	Role
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Dr.K.Vijaya Kumar	HoD-CSE	Member
4.	Dr.Ch.Ramesh Babu	HoD-ECE	Member
5.	Dr.K.Durga Syam Prasad	HoD-EEE	Member
6.	Dr.B.Prakash	HoD-IT	Member
7.	Dr.M.Nagendrababu	HoD-MECH	Member
8.	Dr.M.Pardha Saradhi	HoD-MBA	Member
9.	Dr.K.Chaitanya	HoD-BS&H	Member
10.	Dr.T.Radhakrishna Murty	Professor-BS&H	Member

11.	Mrs.P.Vijaya Bharathi	Assoc. Professor-CSE	Member
12.	Mrs.T.Sandhya Kumari	Assoc. Professor-ECE	Member
13.	Dr.K.Jyothsna	Assoc. Professor-BS&H	Member
14.	Mrs. K. Therissa	Assoc. Professor-EEE	Member
15.	Mrs.S.Kalyani	Assoc. Professor-IT	I/c. Grievanc

Table 10.10 (A) Some of the actions taken by Grievance cell

Complaints	Actions
Students and faculty have complained that most of the buses are overcrowded	Seat allocation was introduced and additional buses were procured
Students and staff have complained against the old infrastructure in the washrooms	All the washrooms have been renovated with new flooring and plumbing.
Students and faculty requested for freezing water machines to have cool water in the campus	Four Freezing water machines have purchased and one in each floor
Students have complained against the medical kit in departments	Arranged separate medical kits in each department for students and staff.
Students have complained against the Shortage of beds in the rest rooms	Additional beds arranged in all rest rooms in the campus
Students have complained to Extend the CCTV Cameras in corridors in all floors	CCTV Cameras installed in all the four floors
Placing Trash Bins in Class room and wash rooms and surroundings of the campus	Trash bins are placed in all class rooms, wash rooms and other appropriate places in campus

(ii) Anti-ragging Cell:

As per All India Council for Technical Education notified Regulation for prevention and prohibition of ragging in AICTE approved Technical Institutions vide No. 37-3/ Legal/ AICTE/ 2009 dated 01.07.2009 Anti Ragging Cell established in the Institution to monitor, direct and oversee the functions and performance of the Anti-Ragging Squads in prevention and curbing of ragging in the institution.

Ragging Prevention at VIEW

- Anti-ragging squad is constituted as per AICTE guidelines.
- Names, telephone nos. of authorities have been put on web site. In case of any emergency student can contact the authority.
- Staff members do the necessary counselling from Time-to-time Sensitize.
- Surprise / Routine visits to hostel, College canteen, common room & other sensitive area by the committee members.

The committee comprises of following members.

Table 10.11 Composition of Anti-ragging Cell

Sl. No	Name	Designation	Position	Phone No.
1.	Dr.J.Sudhakar	Principal	Chairman	9133300346
2.	Mr.M.Joga Rao	Police Representative	S.I. Duvvada Police Station	9440796053
3.	Mr.M.S.V.Prasad	Representatives of Local Media	Field Officer	9959087088
4.	Dr.K.Durga Shyam Prasad	HoD-EEE	Faculty Representative	9550014738
5.	Mrs.Ch.R.S.Valli	Hostel Warden	Mgt. Represen.	9550299709
6.	Mr.Y.Sai Krishna	Campus Manager	Non-Teaching Staff	9133300354
7.	Sri.K.Bhaskara Rao	Parent Representative	Member	8977489200
8.	Sri.E.Eswara Rao,	Parent Representative	Member	8341169171
9.	Mr.K.Suryanarayana Rao	Asst.Prof, BS&H	Coordinator	9642352326
10.	Ms.K.Sri Rekha	III Year Class Representative	Student Member-CSE	9391197198
11.	Ms.K.Vinusha	III Year Class Representative	Student Member-ECE	9392449988
12.	Ms.K.Padmavathi	III Year Class Representative	Student Member-EEE	9515266516
13.	Ms.Bhagya Sri	III Year Class Representative	Student Member-IT	9493399749
14.	Ms.K.Surya Prabha	III Year Class Representative	Student Member-ME	9398429433
15.	Ms.Palli Bhargavi	II Year Class Representative	Student Member-MBA	9392462313

Table 10.12 Institute level Anti-Ragging Squads

Sl.No	Name	Designation	Position	Phone No.
1.	Mrs. Ch. Padma Vani	Assoc.Prof, ECE	Chair Person	9866194699
2.	Mrs.M.Mamatha Laxmi	Asst.Prof, CSE	Member	9246621037
3.	Ms.B. M. Pushpa Latha	Assoc.Prof, EEE	Member	9640782871
4.	Mr. A.V. Pradeep	Asst.Prof, ME	Member	9866317946
5.	Dr.K.Jyothsna	Asso.Prof, BS&H	Member	9063001918

6.	Dr. G.V.Ramakrishna Rao	Assoc.Prof, MBA	Member	9642144268

Duties & Responsibilities

1. Should meets often to discuss the steps to be taken to prevent ragging in the campus.
2. Mandatorily, anti-ragging undertaking is taken from students and their parents at the time of admission.
3. Awareness programs are conducted to the students in association with AP legal Services Authority, Local Police, Progressive Psychologists Association and various NGOs about ragging act, punishments and consequences.
4. Posters depicting the anti-ragging act and its punishments are displayed on all notice boards, corridors and at the canteen.
5. Contact numbers of the anti-ragging committee members are displayed at various sensitive places across the campus.

(iii) Women Grievance & Anti-Sexual Harassment Committee/Cell (WG & ASHC):

A Women Grievance & Anti-sexual Harassment committee is established in the college to ensure safe and healthy working environment for the female students and staff. The cell plays dual role. The Cell is required to work in the direction of providing help to any female complaining of discrimination, either gender discrimination or otherwise, any kind of abuse, loneliness, peer pressure, groupism, home sickness, insecurity and/or inferiority complex in terms of physical appearance, hostel issues, harassment from room-mates, adjusting and adopting to the new environment etc.

The Cell also deals with issues relating to sexual harassment at the college as per the guidelines of Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013. It is applicable to all students, staff and faculty. The following is also sexual harassment and is covered by the committee:

- Eve-teasing, Unsavory remarks,
- Jokes causing or likely to cause awkwardness or embarrassment,
- Innuendos and taunts, Gender based insults or sexist remarks,
- Unwelcome sexual overtone in any manner such as over telephone (obnoxious telephone calls) and the like,
- Touching or brushing against any part of the body and the like,

- Displaying pornographic or other offensive or derogatory pictures, cartoons, pamphlets or sayings,
- Forcible physical touch or molestation and Physical confinement against one's will and any other act likely to violate one's privacy.

Table 10.13 Composition of Women Grievance and Anti-Sexual Harassment Committee

Sl. No	Name	Designation	Position	Phone No.
1.	Dr.K.Jyothsna	Assoc.Prof-BS&H	President	8985367040
2.	Dr.Akanksha Mishra	Assoc.Prof-EEE	Vice-President	9704559874
3.	Mrs.K.Vahini	Asst.Prof-MECH	Secretary	9491992944
4.	Mrs.P.Rajya Lakshmi	Advocate	Adviser	9290442757
5.	Dr.P.Vijaya Bharathi	Assoc.Prof-CSE	Dept.Coordinator	9849819662
6.	Mrs.T.Sandhya Kumari	Assoc.Prof-ECE	Dept.Coordinator	9949873848
7.	Ms.B. M. Pushpa Latha	Assoc.Prof-EEE	Dept.Coordinator	9640782871
8.	Mrs.S.Kalyani	Assoc. Prof-IT	Dept.Coordinator	9491162578
9.	Mrs.K.Vahini	Asst.Prof- MECH	Dept.Coordinator	9491992944
10.	Mrs.M.Satyavathi	Asst.Prof-MBA	Dept.Coordinator	9032991981
11.	Dr.K.P.Suhasini	Assoc.Prof-BS&H	Dept.Coordinator	9885218954

Mechanism for complaints on Sexual Harassment:

A written compliant is required to be taken from the aggrieved person, necessary action to be taken, preferably to settle the matter through counselling and conciliation as soon as possible. In case the matter is not so sorted, inquiry to be conducted and matter to be sorted out within 10 days from the date of compliant. The members to be vigilant all the time and ensure that there is no such incident taking place in campus by creating awareness and having an open dialogue with all the students. Following are the Guidelines to be strictly followed

- The complainant will have to submit a written and signed complaint addressed to the Presiding officer of the Cell
- The students/staff can give a complainant through e-mail to viewfeminawing@gmail.com
- The counselor will call the complainant for a personal meeting, usually within a week from the submission of the written complaint
- The members of the Cell will discuss the complaint

- If the case falls outside the purview of the Cell, the complainant will be informed to Director
- If the case comes under the purview of the Cell, an enquiry committee will be set up
- The Committee will submit a report and recommend the nature of action to be taken at the earliest by Director
- If any legal action is required with the help of advocate member of the cell complaint is forwarded to police.

10.1.4 DELEGATION OF FINANCIAL POWERS (10)

(Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each year of the assessment years)

Institution should explicitly mention financial powers delegated to the Principal, Dean-Admin and Heads of Departments. Demonstrate the utilization of financial powers for each year of the assessment years

Finance Committee:

Finance Committee of the institution shall be the key body which will monitor and manage the financial sustainability of the institution. Finance committee is an advisory body to the Governing Body and reports/recommends from time to time regarding the matters related to budget estimates, income from fees etc. The term of the members of the finance committee will be for the two years and shall be re-constitute by the Principal.

Table 10.14 Composition of Finance Committee

Sl. No	Name of Committee Member	Designation	Position
1.	Dr.J.Sudhakar	Principal	Chairman
2.	Prof.A.Sesha Rao	Academic Director	Member
3.	Mr.N.Srikanth	Executive Director	Member
4.	Dr.P.S.Ravindra	Dean-Admin	Member
5.	Mr.Suresh	Head of Accounts-VIEW	Member
6.	Mr.I.Rama Rao	External Auditor	Member
7.	Mr.Suresh	Statutory Auditor, LES	Member

The functions of the finance Committee are as follows:

1. To monitor and manage the budget estimation relating to the Income from fees collected etc.,

2. To manage the annual budgets and utilization reports submitted by the individual departments

3. Audited account for the above and Department level Financial Delegation

Financial powers delegated to the Principal, Dean-Admin, Heads of Departments and relevant in-charges

1. The Principal of the institution have complete financial powers pertaining to the college.

2. The Principal acts as the joint signatory of all the college financial accounts.

3. The Principal is empowered to sanction the requisite amount of money after getting approval from the Finance committee.

4. Dean of Administration can spend up to Rs. 10,000. In addition to it all pre approved recurring expenses can be cleared by DoA.

5. The HODs are delegated to use Rs 5,000 contingency in emergency purchases and repairs for the smooth running of the department.

6. Annual Budget for the institution is prepared by the Finance committee at the beginning of the year, by considering the possible income and expenditure involved. It is approved in the GB meeting.

7. The HOD is the in-charge for the equipments and stores attached to the department concerned. HOD prepares the lists of items of stores to be replenished at periodical intervals and arrange for the purchase of stores.

8. As stated in table 10.9 above, Institution purchase committee carefully scrutinizes and allocates required funds to each department after acquiring proposals from all the departments regarding their requirements for the academic year.

9. The Purchase Committee will go through the quotes and recommendations of the user and advise the concerned HOD. The concerned HOD will forward the recommendations of the Purchase Committee along with remarks to the Principal.

10. The Dean-Admin will scrutinize the comparative statement and give his remarks and send the file back to the concerned department. The HOD shall take copies of the comparative statement and the quotations and send the originals to Purchase Department for further action.

11. The Dean-Admin will place order after taking approval of Principal & Executive Director.

12. Vouchers support all transactions. All bills/invoices/vouchers are scrutinized by account staff and approved by the Dean-Admin and Principal.

13. The bill payments are passed after ensuring proper verification/evaluation of the items. Only duly authorized persons to operate the transactions through the bank.

14. Audited financial statements including Income and Expenditure Account, Balance Sheet etc. are prepared by qualified auditors and submitted to banks and other regulatory agencies.

Utilization of financial powers for each of the assessment years:

The following table demonstrates the Financial Utilizations by Principal, Dean Admin, and HODs for the last 3 assessment year i.e.2017-18, 2018-19 and 2019-20.

Table 10.15 Financial Utilizations by Principal, Dean Admin, and HOD

	HOD	Dean-Admin	Principal
CAY (2019-20)	Utilization: 1.Printers Cartridge Refilling cost 2. Hospitality expenses like tea coffee, Lunch, Snacks for external laboratory examiners and for panel members in Project Viva Voice. 3. Postage and Cell charges for parents and for official Correspondence. 4.Maintenance and Miscellaneous expenses.	Utilization: 1. Institution buildings. 2. Approval for rent, rates and taxes 3. Insurance and others, if any 4. Postage, Telephone charges 5. Electricity charges 6. Printing and Stationary 7. College maintenance 8. Games & expenses 9. Travelling & conveyance 10. Transportation Charges	Utilization: 1. Advertisement & Publicity expenditure 2. Purchase of books and periodicals for library 3. Approval of cost of functions & celebrations 4. Payment of affiliation fees etc. 5. Purchase of A.C. machinery. 6. Purchase of building construction material 7. Purchase of 300 computers and peripherals 8. Purchase of machinery 9. Purchase of vehicles 10. Approvals for research projects related expenditure 11. Purchase of online journals for the digital library 12. Approval for regular salaries.
CAY *m*1 **(2018-19)**	Utilization: 1.Printers Cartridge Refilling cost 2. Hospitality expenses like tea/coffee, Lunch, Snacks for External Laboratory Examiners and for Panel Members in Project Viva Voice. 3. Postage and Call charges for Parents and for official correspondence. 4. Maintenance and Miscellaneous expenses.	Utilization: 1. Institution buildings. 2. Approval for rent, rates and taxes 3. Insurance and others, if any 4. Postage, Telephone charges 5. Electricity charges 6. Printing and Stationary 7. Garden maintenance 8. Repair & maintenance 9. College maintenance 10. Games & expenses	Utilization: 1. Advertisement & Publicity expenditure 2. Purchase of books and periodicals for library 3. Approval of cost of functions & celebrations 4. Payment of affiliation fees etc. 5. Purchase of A.C. machinery. 6. Purchase of building construction material 7. Purchase of 250 computers and

			peripherals 8. Purchase of electrical equipment 9. Purchase of furniture & fixtures for the class rooms and labs 10. Purchase of lab equipment 11. Purchase of office equipment 12. Purchase of machinery
CAY *m2* **(2017-18)**	Utilization: 1.Printers Cartridge Refilling cost 2. Hospitality expenses like tea/coffee, Lunch, Snacks for External Laboratory Examiners and for Panel Members in Project Viva Voice. 3. Postage and Call charges for Parents and for official correspondence. 4. Maintenance and Miscellaneous expenses.	Utilization: 1.Institution buildings. 2. Approval for rent, rates and taxes 3.Insurance and others, if any 4. Postage, Telephone charges 5. Electricity charges 6. Printing and Stationary 7. Garden maintenance 8. Repair & maintenance 9. College maintenance	Utilization: 1. Advertisement & Publicity expenditure 2. Purchase of books and periodicals for library 3. Approval of cost of functions & celebrations 4. Payment of affiliation fees etc. 5. Purchase of A.C. machinery. 6. Purchase of building construction material 7.Purchase of computers and peripherals 8. Purchase of electrical equipment

10.1.5. TRANSPARENCY AND AVAILABILITY OF CORRECT/UNAMBIGUOUS INFORMATION IN PUBLIC DOMAIN (5)

(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the web site)

Effective governance, leadership and management are evident from its long history of disturbance-free performance in imparting quality technical education. It is mainly because of the highly responsive compact management which gets constant inputs and feedback from the administrative and academic heads, experts, alumni, faculty, students, and supporting staff.

Information on the policies, rules, processes:

1.The Institution has its own HR policies, Service Rules and Processes that are disseminated to the stake holders through the institutional website http://view.edu.in/admsrpp.php

2. The Vision, Mission and objectives of the institution are displayed in the College campus at Notice boards, Department Notice boards, Canteen, Hostel building, library and other prime locations to engross the attention of all students, faculty, staff and visitors. The same is also communicated through college website and Newsletter to all the stakeholders for wide publicity.

3. The web-site (www.view.edu.in) of the institution publishes the information pertaining to the institute and programs for circulation to stakeholders and the general public.

4. Annual audited reports are published and available to the stakeholders and public in the college website.

5. The student admissions are transparently filled through a separate single window system of the government of Andhra Pradesh. Admission to UG is done through APEAMCET and admission to PG programs is done through APPGCET & APICET.

Dissemination of the information about student, faculty and staff

1. Information such as Internal marks scored by students, Shortage of attendance, if any, examination schedule, availability of scholarships, opportunities for students etc. are promptly displayed on Notice Boards.

2. Criteria for student scholarships, faculty awards etc. are informed well in advance so that equal opportunity is given to all individuals concerned.

3. At the beginning of every academic year the college brings out a broucher, which contain all the information like departments profile, faculty details, students result, achievements, placement records and other information required by a student to carry out her studies in the college.

4. Notices or Circulars concerned to students are circulated in the class rooms and displayed on the notice boards.

5. Circulars or notifications from the university regarding academic matters are sent to all the Heads of the departments and circulated among the faculty members and students.

6. The institution is transparent in providing timely information to its staff enabling better connectivity and proficiency in day-to-day academic and administrative works.

7. An SMS alert is sent to parents/guardians if their ward fails to attend the classes.

8. Regularly we intimate to parents/ guardian regarding the attendance and academic progress of their wards through registered post with acknowledgement.

10.2. Budget Allocation, Utilization, and Public Accounting at Institute level (30)

(Summary of current financial year"s budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years)

Total Income at Institute level: for CFY, CFY*m*1, CFY*m*2 and CFY*m*3

CFY: Current Financial Year,

CFY*m*1: (Current Financial Year minus 1),

CFY*m*2: (Current Financial Year minus 2) and

CFY*m*3: (Current Financial Year minus 3)

Table 1 CFY 2019-2020

Total Income:			**100,408,508**	**Actual Expenditure (till…)**		**152,832,520**	**Total No. of students:** 2368
Fee	**Govt.**	**Grant(s)**	**Other Sources (specify)**	**Recurring including Salaries**	**Non recurring**	**Special Projects/ Any other, specify**	**Expenditure per student:**
99,535,825	0	300000	572,683	107,401,404	45,431,116	0	64541

Table 2 CFYm1 2018-2019

Total Income:			**100,050,510**	**Actual Expenditure (till…)**		144,356,363	**Total No. of students:** 2455
Fee	**Govt.**	**Grant(s)**	**Other Sources (specify)**	**Recurring including Salaries**	**Non recurring**	**Special Projects/ Any other, specify**	**Expenditure per student:**
99,285,460	0	400,000	365,050	114,019,867	30,336,496	0	58801

Table 3 CFYm2 2017-2018

Total Income:			**93,429,180**	**Actual Expenditure (till…)**		127,738,841	**Total No. of students:** 2357
Fee	**Govt.**	**Grant(s)**	**Other Sources (specify)**	**Recurring including Salaries**	**Non recurring**	**Special Projects/ Any other, specify**	**Expenditure per student:**
91,145,210	0	1,674,360	609,610	100,792,728	26,946,113	0	54196

Table 4 CFYm3 2016-2017

Total Income:			86,558,949	**Actual Expenditure (till…)**		110,617,386	**Total No. of students:** 2171
Fee	**Govt.**	**Grant(s)**	**Other Sources (specify)**	**Recurring including Salaries**	**Non recurring**	**Special Projects/ Any other, specify**	**Expenditure per student:**
84,161,866	0	0	2,397,083	89,567,189	21,050,197	0	50,952

Table 5 Summery of budget allocation and expenses

Item	**Budgeted in 2019-20**	**Actual Expenses in 2019-20**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19**	**Budgeted in 2017-18**	**Actual Expenses in 2017-18**	**Budgeted in 2016-17**	**Actual Expenses in 2016-17**
Infrastructure Built-Up	28,000,000	27,061,417	19,840,000	19,820,565	23,500,000	22,996,824	18,000,000	17,570,228
Library	166,500	164,809	425,000	395,030	800,000	714,159	825,000	776,399
Laboratory Equipment	1,200,000	1,078,060	3,000,000	2,804,536	300,000	273,600	370,000	360,257
Laboratory Consumable	48,000	46,928	120,000	113,839	80,000	73,406	120,000	105,948
Teaching and non-Teaching staff salary	62,000,000	65,524,922	70,000,000	71,416,461	58,501,456	61,527,649	50,000,000	52,233,443
Maintenance and Spares	7,100,000	6,990,615	3,500,000	3,380,388	2,500,000	2,440,988	1,700,000	1,583,479
R&D	3,250,000	3,144,921	2,700,000	2,557,792	3,000,000	2,664,954	2,100,000	2,078,543
Training and Travel	200,000	193,352	180,000	163,357	288,000	285,027	500,000	467,375
Miscellaneous Expense	14,250,000	14,203,173	5,200,000	5,010,987	600,000	575,274	425,000	416,038
Admin & Finance costs	36,000,000	34,424,324	40,000,000	38,693,408	36,250,000	36,186,960	36,000,000	35,025,677
Total	**152,214,500**	**152,832,520**	**144,965,000**	**144,356,363**	**125,819,456**	**127,738,841**	**110,040,000**	**110,617,386**

10.2.1. Adequacy of budget allocation (10)

(The institution needs to justify that the budget allocated during assessment years was adequate)

The yearly budget is prepared according to the needs & requirements of the departments taking into consideration of annual intake of students, laboratory & infrastructure developments. Components include Students, faculty & staff requirements and promotions and latest technologies etc. Formal budget estimates will be prepared by each department and will be reviewed in HODs meeting with the Principal. After deliberations, formal budget made altered in departments and forwarded to Principal for preparing the final budget at the college level. The final budget is sent to Management for approval and sanction. The Management is approving almost 100% which was proposed by the institute. The budget allocation and utilization for the last three years is adequate.

Table 1 CFY 2019-2020

Item	Budgeted	Percentage of Allocation
Infrastructure Built-up	28,000,000	18.40
Library	166,500	0.11
Laboratory Equipment	1,200,000	0.79
Research & Development	3,250,000	2.14
Total Non Recurring	**32,616,500**	**21.43**
Teaching & Non-Teaching Salaries	**62,000,000**	**40.73**
Maintenance and Spares	7,100,000	4.66
Laboratory Consumables	48,000	0.03
Training & Travel	200,000	0.13
Miscellaneous Exp.	14,250,000	9.36
Administration and Finance Cost	36,000,000	23.65
Total Other Recurring Expenditure	**57,598,000**	**37.84**
TOTAL	**152,214,500**	**100.00**

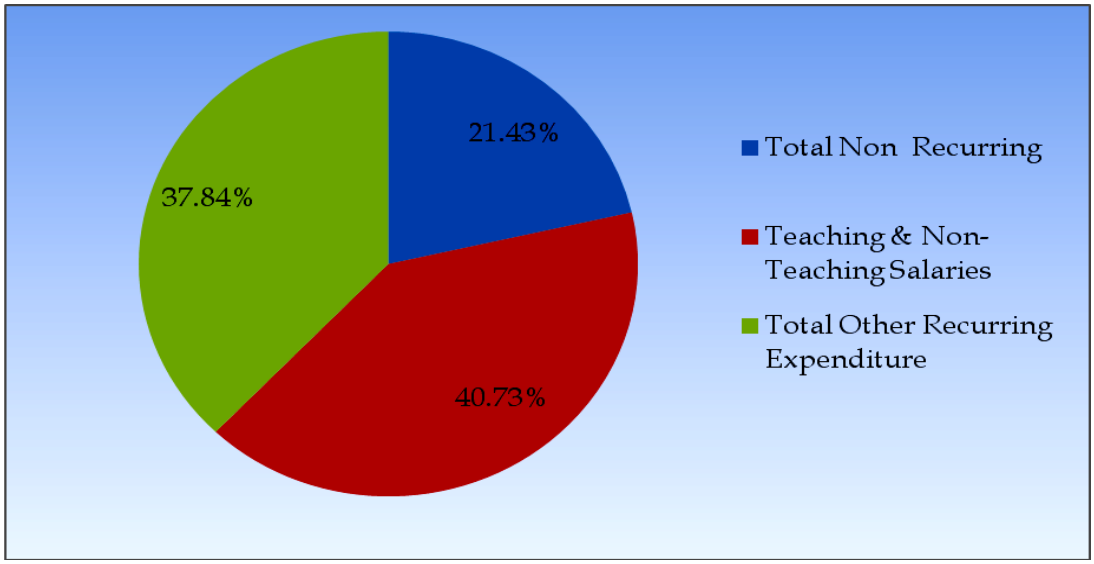


Table 2 CFYm1 2018-2019

Item	Budgeted	Percentage of Allocation
Infrastructure Built-up	19,840,000	13.69
Library	425,000	0.29
Laboratory Equipment	3,000,000	2.07
Research & Development	2,700,000	1.86
Total Non Recurring	**25,965,000**	**17.91**
Teaching & Non-Teaching Salaries	70,000,000	48.29
Maintenance and Spares	3,500,000	2.41
Laboratory Consumables	120,000	0.08
Training & Travel	180,000	0.12
Miscellaneous Exp.	5,200,000	3.59
Administration and Finance Cost	40,000,000	27.59
Total Other Recurring Expenditure	**49,000,000**	**33.80**
TOTAL	**144,965,000**	**100.00**

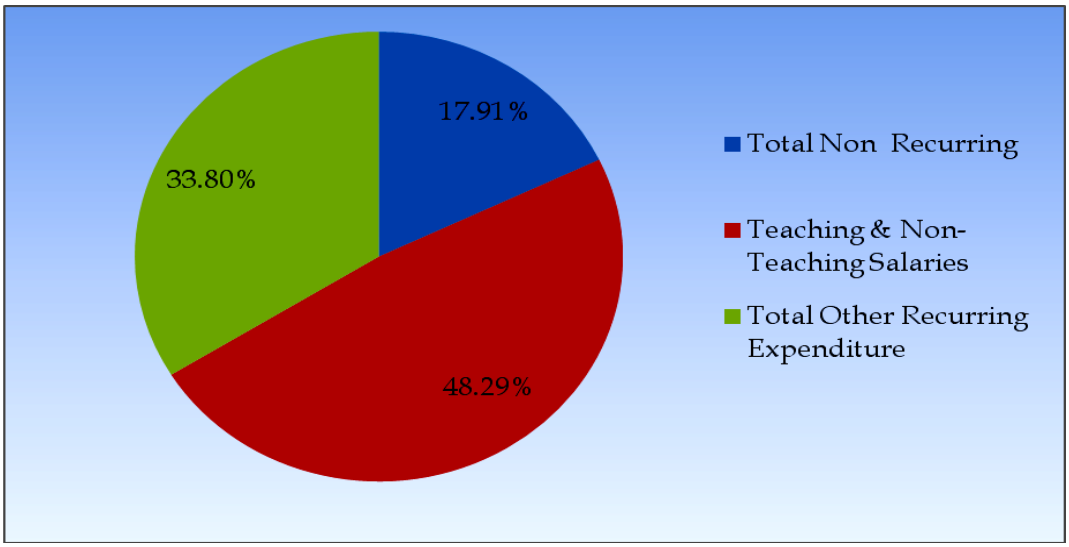


Table 3 CFYm2 2017-2018

Item	Budgeted	Percentage of Allocation
Infrastructure Built-up	23500000	18.68
Library	800000	0.64
Laboratory Equipment	300000	0.24
Research & Development	3000000	2.38
Total Non Recurring	**27,600,000**	**21.94**
Teaching & Non-Teaching Salaries	58501456	46.50
Maintenance and Spares	2500000	1.99
Laboratory Consumables	80000	0.06
Training & Travel	288000	0.23
Miscellaneous Exp.	600000	0.48
Administration and Finance Cost	36250000	28.81
Total Other Recurring Expenditure	**39,718,000**	**31.57**
TOTAL	**125819456**	**100.00**

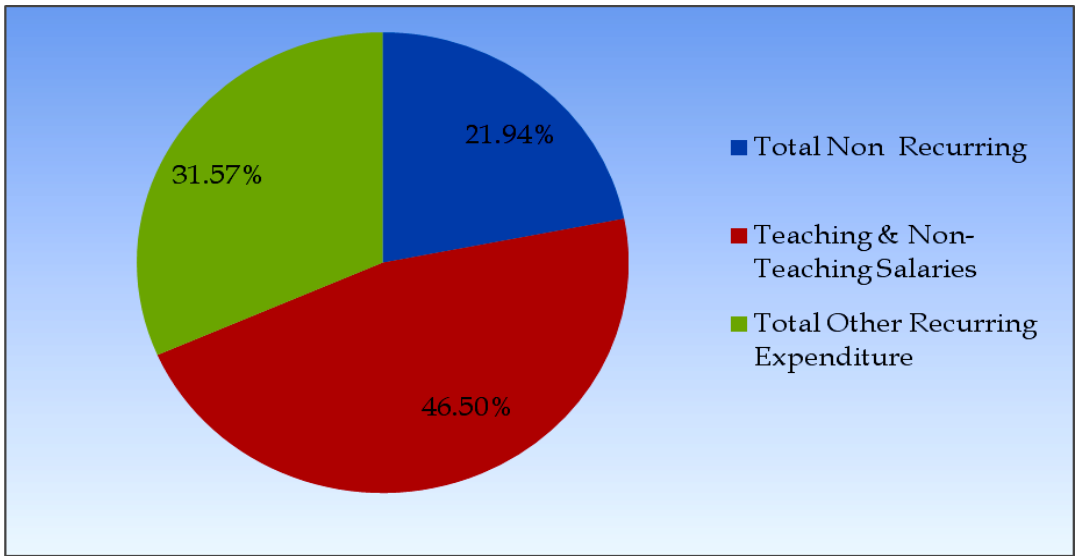


Table 4 CFYm3 2016-2017

Item	Budgeted	Percentage of Allocation
Infrastructure Built-up	18000000	16.36
Library	825000	0.75
Laboratory Equipment	370000	0.34
Research & Development	2100000	1.91
Total Non Recurring	**21,295,000**	**19.35**
Teaching & Non-Teaching Salaries	50000000	45.44
Maintenance and Spares	1700000	1.54
Laboratory Consumables	120000	0.11
Training & Travel	500000	0.45
Miscellaneous Exp.	425000	0.39
Administration and Finance Cost	36000000	32.72
Total Other Recurring Expenditure	**38,745,000**	**35.21**
TOTAL	**110040000**	**100.00**

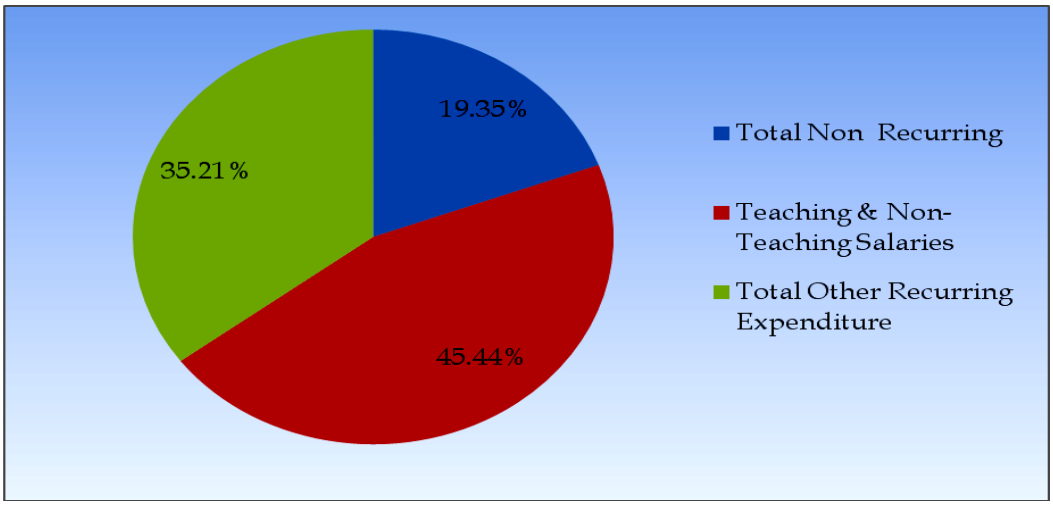


Table 5 Summary of Budget Allocation

Head of Expenditure	2019-20	2018-19	2017-18	2016-17
Teaching and Non-Teaching Salaries	40.73%	48.29%	46.5%	45.44%
Administration and Finance Cost	23.65%	27.59%	28.81%	32.72%
Other recurring Expenditure	14.19%	6.21%	2.75%	2.49%
Non-recurring Expenditure	21.43%	17.91%	21.94%	19.35%
Total Expenditure	**100%**	**100%**	**100%**	**100%**
Total Expenditure per student	**64,541**	**58,801**	**54,196**	**50,952**

Analysis on Adequacy:

- The total budget allocation and utilization have followed established norms in terms of contribution to salaries, administrative expenditure and Non Recurring expenditure to the total expenditure.
- Total budget of the institution has increased by 38% in the past 4 years which is in lines with the increase in student strength
- Total salary expenditure is at a healthy range of 40.73% to 48.29% of the total recurring expenditure in the assessment years
- Total administrative and finance cost is within a range of 23.65% to 32.72% which is as per the accepted standards and it also indicates that the institute has been growing.
- Total nonrecurring expenditure is within a range of 17.91% to 21.94% of the total expenditure of the institution showcasing the commitment towards growth and preparations for the future.
- The average expenditure per student has been growing consistently at an average of 8.21% over the past 4 years which indicating a healthy growth and development in all parameters.

10.2.2. Utilization of allocated funds (15)

(The institution needs to state how the budget was utilized during assessment years)

Table 1 CFY 2019-2020

Item	Budgeted	Utilization	% of Utilization
Infrastructure Built-up	28,000,000	27,061,417	96.65
Library	166,500	164,809	98.98
Laboratory Equipment	1,200,000	1,078,060	89.84
Research & Development	3,250,000	3,144,921	96.77
Total Non Recurring	**32,616,500**	**31,449,206**	**96.42**
Teaching & Non-Teaching Salaries	62,000,000	65,524,922	105.69
Maintenance and Spares	7,100,000	6,990,615	98.46
Laboratory Consumables	48,000	46,928	97.77
Training & Travel	200,000	193,352	96.68
Miscellaneous Exp.	14,250,000	14,203,173	99.67
Administration and Finance Cost	36,000,000	34,424,324	95.62
Total Other Recurring Expenditure	**50,498,000**	**48,867,777**	**96.77**
TOTAL	**152,214,500**	**152,832,520**	**100.41**

Table 2 CFYm1 2018-2019

Item	Budgeted	Utilization	% of Utilization
Infrastructure Built-up	19,840,000	19,820,565	99.90
Library	425,000	395,030	92.95
Laboratory Equipment	3,000,000	2,804,536	93.48
Research & Development	2,700,000	2,557,792	94.73
Total Non Recurring	**25,965,000**	**25,577,923**	**98.51**
Teaching & Non-Teaching Salaries	70,000,000	71,416,461	102.02
Maintenance and Spares	3,500,000	3,380,388	96.58
Laboratory Consumables	120,000	113,839	94.87
Training & Travel	180,000	163,357	90.75
Miscellaneous Exp.	5,200,000	5,010,987	96.37
Administration and Finance Cost	40,000,000	38,693,408	96.73
Total Other Recurring Expenditure	**45,500,000**	**43,981,591**	**96.66**
TOTAL	**144,965,000**	**144,356,363**	**99.58**

Table 3 CFYm2 2017-2018

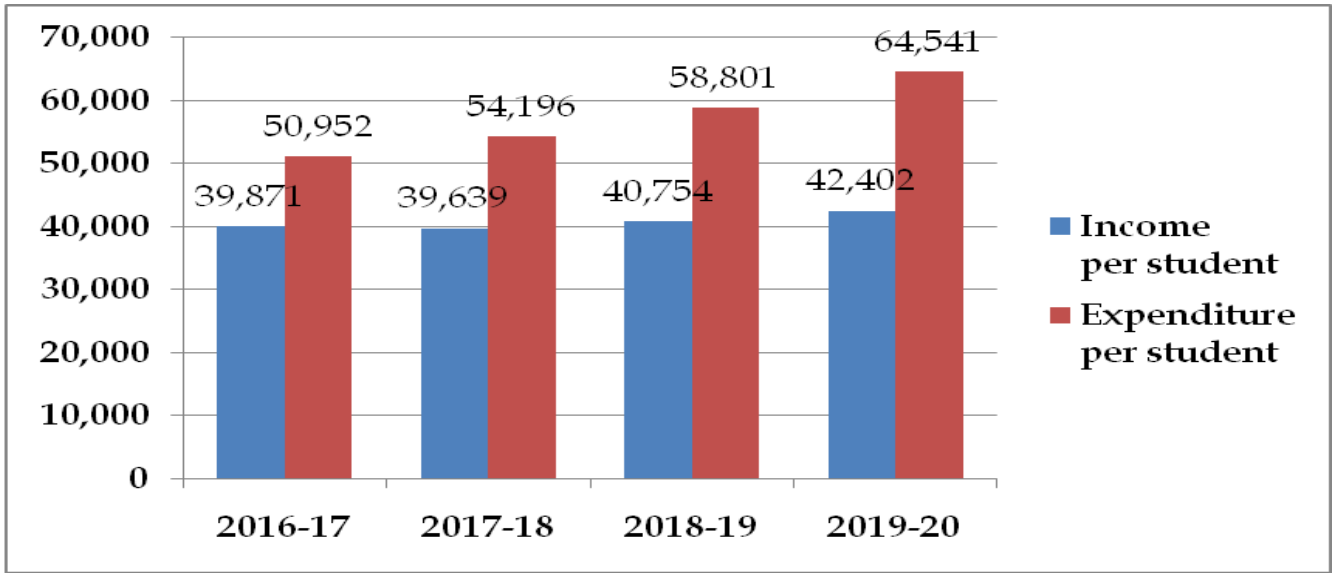
Item	Budgeted	Utilization	% of Utilization
Infrastructure Built-up	23,500,000	22,996,824	97.86
Library	800,000	714,159	89.27
Laboratory Equipment	300,000	273,600	91.20
Research & Development	3,000,000	2,664,954	88.83
Total Non Recurring	**27,600,000**	**26,649,537**	**96.56**
Teaching & Non-Teaching Salaries	58,501,456	61,527,649	105.17
Maintenance and Spares	2,500,000	2,440,988	97.64
Laboratory Consumables	80,000	73,406	91.76
Training & Travel	288,000	285,027	98.97
Miscellaneous Exp.	600,000	575,274	95.88
Administration and Finance Cost	36,250,000	36,186,960	99.83
Total Other Recurring Expenditure	**37,218,000**	**37,120,667**	**99.74**
TOTAL	**125,819,456**	**127,738,841**	**101.53**

Table 4 CFYm3 2016-2017

Item	Budgeted	Utilization	% of Utilization
Infrastructure Built-up	18,000,000	17,570,228	97.61
Library	825,000	776,399	94.11
Laboratory Equipment	370,000	360,257	97.37
Research & Development	2,100,000	2,078,543	98.98
Total Non Recurring	**21,295,000**	**20,785,426**	**97.61**
Teaching & Non-Teaching Salaries	50,000,000	52,233,443	104.47
Maintenance and Spares	1,700,000	1,583,479	93.15
Laboratory Consumables	120,000	105,948	88.29
Training & Travel	500,000	467,375	93.48
Miscellaneous Exp.	425,000	416,038	97.89
Administration and Finance Cost	36,000,000	35,025,677	97.29
Total Other Recurring Expenditure	**37,045,000**	**36,015,038**	**97.22**
TOTAL	110,040,000	110,617,386	100.52

Table 5 Statement of Income and Expenditure per student

Financial Year	Total Income	Total Expenditure	Adjustment from Other Units	Income per student	Expenditure per student
2019-20	100,408,508	152,832,520	52,424,012	39,871	50,952
2018-19	100,050,510	144,356,363	44,305,853	39,639	54,196
2017-18	93,429,180	127,738,841	34,309,661	40,754	58,801
2016-17	86,558,949	110,617,386	24,058,437	42,402	64,541



Utilization:

- Total utilization of allocated funds to majority elements has been at a healthy range of 92% to 106% of the budgeted expenditure in the past 4 years
- Salaries at the institution have increased by 31.04% from 2016-17 to 2019-20 indicating an average growth of 10% per annum indicating a healthy improvement in staff numbers and also healthy increments for the staff members.
- An appropriate utilization of allocated fund to Infrastructure Built-up has been taken place in all the assessment Years, which indicates the institute is able to accrue a significant portion of the nonrecurring expenditure from internal accruals indicating a healthy growth.
- Total nonrecurring expenditure has increased from 2.07 crores to 3.14 crores due to the focus of the institution on infrastructure improvement and establishing state of the facilities
- The expenditure over income of the institute stand for the cost incurred for infrastructure development which is adjusted from the other units of Lavu Educational society which indicates the commitment of the institution towards its vision to provide competent women technical power keeping the demands of the industry along with providing a robust economic boost to the family in the form of a technically educated and trained woman professional.

10.2.3. Availability of the audited statements on the institute's website (5)

(The institution needs to make audited statements available on its website)

YES, The institution needs to make audited statements available on its website

2019-20	YES	www.view.edu.in
2018-19	YES	www.view.edu.in
2017-18	YES	www.view.edu.in
2016-17	YES	www.view.edu.in

10.3 Program Specific Budget Allocation, Utilization (30)

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3

Table 1 :: CFY 2019-20

Total Budget:	37,817,500	Actual expenditure:	37,433,641	Total No. of students : 580
Non Recurring	Recurring	Non Recurring	Non Recurring	Expenditure per student
11,755,500	26,062,000	11,127,554	26,306,087	64541

Table 2 :: CFYm1 2018-19

Total Budget :	33,994,000	Actual expenditure:	33,928,155	Total No. of students : 577
Non Recurring	Recurring	Non Recurring	Non Recurring	Expenditure per student
7,209,000	26,785,000	7,130,003	26,798,152	58801

Table 3 :: CFYm2 2017-18

Total Budget:	29,915,910	Actual expenditure:	30,241,100	Total No. of students : 558
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
6,472,851	23,443,059	6,379,266	23,861,834	54196

Table 4 :: CFYm3 2016-17

Total Budget:	26,726,000	Actual expenditure:	26,749,944	Total No. of students : 525
Non Recurring	Recurring	Non Recurring	Non Recurring	Recurring
5,231,000	21,495,000	5,090,444	21,659,500	50952

Table 5 :: Summary of allocation and expenses

Items	**Budgeted in 2019-20**	**Actual Expenses in 2019-20**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19**	**Budgeted in 2017-18**	**Actual Expenses in 2017-18**	**Budgeted in 2016-17**	**Actual Expenses in 2016-17**
Laboratory Equipment	275,000	264,052	700,000	659,152	70,000	64,773	92,000	87,119
Software	836,000	835,763	650,000	644,128	20,729	19,055	15,000	14,224
Laboratory Consumable	12,000	11,494	32,000	26,756	20,000	17,378	30,000	25,621
Maintenance and Spares	1,740,000	1,712,228	810,000	794,494	580,000	577,883	400,000	382,923
R&D	800,000	770,293	650,000	601,159	700,000	630,905	505,000	502,642
Training and Travel	50,000	47,358	42,000	38,394	68,000	67,478	120,000	113,023
Miscellaneous Expense	70,000	69,576	62,500	58,887	28,170	27,238	20,800	20,122
Total	**3,783,000**	**3,710,765**	**2,946,500**	**2,822,970**	**1,486,899**	**1,404,711**	**1,182,800**	**1,145,673**

10.3.1. Adequacy of budget allocation (10)

(Program needs to justify that the budget allocated over the assessment years was adequate for the program)

Table 1 :: CFY 2019-20

Items	Budgeted	% of Allocation
Laboratory Equipment	275,000	7.27
Software	836,000	22.10
Laboratory Consumable	12,000	0.32
Maintenance and Spares	1,740,000	46.00
R&D	800,000	21.15
Training and Travel	50,000	1.32
Miscellaneous Expense	70,000	1.85
Total Expenditure	**3,783,000**	**100.00**

Table 2 :: CFYm1 2018-2019

Items	Budgeted	% of Allocation
Laboratory Equipment	700,000	23.76
Software	650,000	22.06
Laboratory Consumable	32,000	1.09
Maintenance and Spares	810,000	27.49
R&D	650,000	22.06
Training and Travel	42,000	1.43
Miscellaneous Expense	62,500	2.12
Total Expenditure	**2,946,500**	**100.00**

Table 3 :: CFYm2 2017-2018

Items	Budgeted	% of Allocation
Laboratory Equipment	70,000	4.71
Software	20,729	1.39
Laboratory Consumable	20,000	1.35
Maintenance and Spares	580,000	39.01
R&D	700,000	47.08
Training and Travel	68,000	4.57
Miscellaneous Expense	28,170	1.89
Total Expenditure	**1,486,899**	**100.00**

Table 4 :: CFYm3 2016-2017

Items	Budgeted	Percentage of Allocation
Laboratory Equipment	92,000	7.78
Software	15,000	1.27
Laboratory Consumable	30,000	2.54
Maintenance and Spares	400,000	33.82
R&D	505,000	42.70
Training and Travel	120,000	10.15
Miscellaneous Expense	20,800	1.76
Total Expenditure	**1,182,800**	**100.00**

Analysis on Adequacy:

- The total budget allocated as per the requirements of the Department to meet the established norms of statutory bodies.
- Total budget of the department has increased in the past 4 years which is in lines with the increase in student strength.
- In order to develop effective teaching-learning process among the students and staff, allocated 22% of department budget towards lab equipment and software equipment during the last two years.
- To meet the curriculum requirements, established a new computer laboratory with necessary equipment.
- All the labs are well established and maintain the consistency of labs and renovations of labs allocated major budget for maintenance and spares
- To develop employability as well as entrepreneurship skills including **Product Development Training** and also promote more research activities among the students and staff, faculty members are motivated to participate in workshops and FDPs, so that spent more budget for R&D.

10.3.2 Utilization of Allocated Funds (20)

(Program needs to state how the budget was utilized during the last three assessment years)

Table 1 :: CFY 2019-20

Item	Budgeted	Utilization	
Laboratory Equipment	275,000	264,052	96.02
Software	836,000	835,763	99.97
Laboratory Consumable	12,000	11,494	95.78
Maintenance and Spares	1,740,000	1,712,228	98.40
R&D	800,000	770,293	96.29
Training and Travel	50,000	47,358	94.72
Miscellaneous Expense	70,000	69,576	99.39
Total Expenditure	**3,783,000**	**3,710,765**	**98.09**

Table 2 :: CFYm1 2018-2019

Item	Budgeted	Utilization	
Laboratory Equipment	700,000	659,152	94.16
Software	650,000	644,128	99.10
Laboratory Consumable	32,000	26,756	83.61
Maintenance and Spares	810,000	794,494	98.09
R&D	650,000	601,159	92.49
Training and Travel	42,000	38,394	91.41
Miscellaneous Expense	62,500	58,887	94.22
Total Expenditure	**2,946,500**	**2,822,970**	**95.81**

Table 3 :: CFYm2 2017-2018

Item	Budgeted	Utilization	
Laboratory Equipment	70,000	64,773	92.53
Software	20,729	19,055	91.93
Laboratory Consumable	20,000	17,378	86.89
Maintenance and Spares	580,000	577,883	99.64
R&D	700,000	630,905	90.13
Training and Travel	68,000	67,478	99.23
Miscellaneous Expense	28,170	27,238	96.69
Total Expenditure	**1,486,899**	**1,404,711**	**94.47**

Table 4 :: CFYm3 2016-2017

Item	Budgeted	Utilization	Percentage of Utilization
Laboratory Equipment	92,000	87,119	94.69
Software	15,000	14,224	94.83
Laboratory Consumable	30,000	25,621	85.40
Maintenance and Spares	400,000	382,923	95.73
R&D	505,000	502,642	99.53
Training and Travel	120,000	113,023	94.19
Miscellaneous Expense	20,800	20,122	96.74
Total Expenditure	**1,182,800**	**1,145,673**	**96.86**

Utilization:

- Proposed budget sanctioned by the management, we purchased the lab equipment and software and also given training to the students as well as faculty as per the vision and mission of the Department.
- Total utilization has been at a healthy range of 94.47% to 98.09% of the budgeted expenditure in the past 4 years.
- The department is able to accrue a significant portion of the nonrecurring expenditure from internal accruals indicating a healthy growth.
- Total expenditure of the department drastically increased in the last 4 years due to the focus of the department on infrastructure improvement and establishing state of the facilities.

10.4. Library and Internet (20)

(Indicate whether zero deficiency report was received by the Institution for all the assessment years. Effective availability/ purchase records and utilization of facilities/equipment etc. to be documented and demonstrated)

The Institute Central Library aims to providing access to its Printed resources as well as Electronic Resources for the use of faculty and Students at the college campus. The Staff and students have unlimited access to a wealth of Information found in resources like books, magazines, Journals, Hand Books, Annual reports and the Internet. In addition, the library offers specious seating arrangements and a calm ambience for learning.

Zero Deficiency:

Table 10.16 Zero Deficiency report

Academic Year	Zero deficiency report received by the Institute from AICTE	Application No.
2019-20	YES	1-4261476817
2018-19	YES	1-3514059264
2017-18	YES	1-3325461133
2016-17	YES	1-2812749429

Library Data Base

Table 10.17 Details of Library

Carpet area of library (in m2)	571.91Sq. Mts
Reading space (in m2)	275 sq Mts
Number of seats in reading space	175
Number of users (issue book) per day	210 – Issues & Returns (App)
Number of users (reading space) per day	350 (App)
Timings: During working day	7:30 am to 5:30 pm
Number of library staff	03 +1
Number of library staff with a degree in Library	02
Library Management	01
Computerization for search, indexing	Yes
Issue/return records bar coding used	Yes
Library services on Internet	Yes
DELNET Membership	Yes
Archives	Question Papers, Projects, CDs, News paper Clippings, Syllabus etc

Library Expenditure

Table 10.18 Expenditure Details of Library

Academic Year	Books	Journals (E-Journals +	Other Expenditure	Total Expenditure

		Hard Journals)		
2019-20	301890.00	76680.00	74574.00	453144.00
2018-19	434438.00	224696.00	64785.00	723919.00
2017-18	855706.00	176376.00	150550.00	1182632.00
2016-17	652491.00	97452.00	46880.00	796823.00

10.4.1. QUALITY OF LEARNING RESOURCES (HARD/SOFT) (10)

The central Library is a proud partner in the Institute's march towards its vision playing a vital role in acquisition, organization and dissemination of knowledge. The main thrust of the library continues to be the improvement of the quality of services and facilities, achieving higher degree of user's satisfaction and modernization of its activities and operations. The Central Library is totally Air Conditioned, presently covers a total user area of 571.91 sq. mtrs, with a seating capacity of 175 and caters to the information needs of the faculty, staff and students. The Central Library has Text book section, Circulation section, Reference books, Periodical Section with rich collection of Journals and books. The separate departmental libraries are establishment in each department for quick access purpose in addition to the central library.

Library Collection:

The Vignana Vahini Library has a huge collection of 27784 books with 5676 titles on various subjects including technical, managerial and humanities and reference books covering biographies, dictionaries, yearbooks etc. The library subscribes 108 National, International print journals and Magazines, 5230 e-journals, and holds over 1018 project reports. The Learning materials, Previous Question Papers, Project Reports of all departments are made available

Library e-Resources:

The Digital Library has 15 computers and several E- Resource of e-journals, e-books, video lectures (like NPTEL), audio lectures of various publisher are made available in the Digital Library for effective teaching learning process.

Library Automation and Security:

The Central Library employs Barcode technology for access control, automatic issue and return of library books. Automation of library services enables library staff to assist the students for more time in their search for quality learning resources.

10.4.1.1 Relevance and availability of learning resources:

The procurement of the books is decided based on the library advisory committee which consists of all the departments. Selected students from III and IV year of Engineering are also members of the library advisory committee. This committee recommends the titles and authors which are relevant for the courses, and of latest publications. The committee also recommends on the procurement of e-books and e-journals. We implement all the recommendations of the advisory committee.

The following table gives the number of titles and volumes available in central library.

No of Titles and Volumes: 30-06-2020 No. of Titles: 5676 No. of Volumes: 27784		
Academic Year	**No. of Titles added**	**No. of Volumes added**
2019-20	126	555
2018-19	124	1039
2017-18	183	1708
2016-17	181	1702

The below table gives the number of titles and volumes program wise in the central library.

Table 10.19 Program Wise Number of Titles and Volumes

S. No	Subject	No. of Titles	No. of Volumes
1	Computer Science Engineering	927	4324
2	Information Technology	813	3312
3	Electronics and Communications Engineering	921	4314
4	Electrical and Electronics Engineering	826	3819
5	Mechanical Engineering	712	3013
6	Master of Business Administration	731	5027
7	Sciences & Humanities	318	2762
8	General Books	428	1213
	Total	**5676**	**27784**

9	E-Books	1784	1784
10	Book Bank Books:		
	i) SC BOOKS	93	165
	ii) ST BOOKS	25	25

Scholarly Journal Subscription:

Academic Year	No. of Total Technical Journals/Magazines subscribed (Hard Copy)	Internationally acclaimed titles in (Softcopy)
2019-20	108	• IEEE • IEI • J-Gate • DELNET • N-Digital
2018-19	104	• IEEE • IEI • J-Gate • DELNET • N-Digital
2017-18	101	• IEEE • IEI • J-Gate • DELNET • N-Digital

Availability of Digital Library Contents:

Following digital contents are made available

Content	Accessibility	
NPTEL Video Lecture	Access Provided to NPTEL Video Lecture Content	YES, through local Server
National Digital Library of India (NDL) IIT Kharagpur	Membership to NDL Digital Library of India	YES
Availability over Intranet /Internet	YES	

No. of users per day:	25 - 35 Per Day

10.4.1.2 Accessibility to Students:

1. The Library is open for all users from 7.30 am to 5.30 pm. The library hours are extended on the basis of need during examinations.
2. Regular class time tables of all programs allot one period a week for library study.
3. The students utilize the library study period. In addition, many students spend many more hours in the library studying on their own.
4. The use of library by students is generally more during examination period.
5. Digital Library is also available to the students with free internet Access.
6. The library provides IP enabled access to a large number of full texts online journal databases from the various publishers.
7. In the library the staff helps the students to register National Digital Library for self learning. The staff also helps the students to register with NDL.

10.4.1.3 Support to students for self learning activities

1. A digital library is setup to facilitate online access of the information.
2. The search and download functions are free of cost for all the users.
3. Students can access digital resources through the systems and download the required books / publications.
4. NPTEL (National Project on Technology Enhanced Learning): Access to online learning material prepared by IIT and other esteemed institutions are hosted on institution server.
5. Institute is registered as member of National Digital Library (NDL) & DELNET
6. Each student is given 3 library cards using which he/she can lend 3 books for 15 days.
7. The borrowed books can be renewed before the due date




10.4.2. INTERNET (10)

The entire campus is Wi-Fi enabled to all the students and faculty members. A state-of-the-art campus network with a 60 Mbps Leased line Internet connection offer unlimited access of Internet for the students and staff round the clock, for their educational and research needs.

Table 10.19 Details of Internet

S. No	Particulars	
1	Name of Internet Provider	Idea Cellular Limited and Bharti Airtel Limited
2	Available Bandwidth	60 Mbps
3	WiFi Availability	40 Mbps (Reliance Jio) Wi-Fi connectivity is available in and around the campus
4	Internet access in labs, classrooms, library and office of all departments	Yes. Internet is accessible in all computer labs, classrooms, Library and department offices
5	Security Arrangements	Quick heal Antivirus with firewall protection