ADDON COURSES (2019-20) – Program Report

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

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 27.09.2019

PROGRAM REPORT

Name of the Add-on Course: Electrical AutoCAD

Day/Duration : 18.09.2019 to 25.09.2019 (7 Days) -32 Hrs

Time : 09:30AM to 04:30 PM

Resource Person : Mr. N. Kiran, Assistant Professor, ANITS

Name of the Coordinator: Ms. T. Sushma, Assistant Professor, VIEW

Number of Participants : 54

Course Objectives:

1.Describe the You will create schematic drawings such as ladder logic and point to point, panel drawings, and PLC-I/O circuits using automated commands for symbol insertion, component tagging, wire numbering, and drawing modification.

2. Know methods of customizing AutoCAD Electrical symbols, circuits, and databases. Other topics covered include title block linking, reporting tools, templates, and project files.

Topics Covered: The following topics covered in this program

- Basic Workflow, & Project Basics
- Schematic Wiring
- Schematic Editing& Schematic Components
- Custom Components & Custom Data
- Point to point wiring Tool
- Panel Layouts

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Know about the symbol naming conventions; usage of multiple symbol libraries, hydraulic and P&ID symbols; generate PLC layout modules, insert PLC modules, and organize PLC database files.	PO3, PO5	3
CO2	know how to bring components into the panel for layout; to generate and update customizable reports, and use folders to organize drawings.	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions through offline mode

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 26.09.2019

PROGRAM REPORT

Name of the Add on Course: Basic Electronics Home Laboratory

Day/Duration : 18.09.2019 to 25.09.2019 (7 Days) – 32 Hrs

Time : 09:30AM to 4:30 PM

Resource Person : Dr. P. Ravi shankar, Associate Prof., Dept. of EEE, VIIT

Name of the Coordinator: Mr. K. Chiranjeevi, Asst. Prof., Dept. of EEE, VIEW

Number of Participants: 53.

Course Objectives:

1. To Identify different electronics components
2. To Design the circuit on Breadboard.
3. To understand the Soldering tools & components.

Topics Covered: The following topics covered in this program

1. Introduction to Electronics, Introduction to Breadboard, Resistors, Introduction to Capacitors and various types
2. Inductors and various types , Special Purpose Diodes
3. Basic Electronics - Transformers, Types of Transformers based on Usage, Transformer Efficiency Basic Electronics - Diodes
4. Basic Electronics - Junction Diodes Special Purpose Diodes Optoelectronic Diodes
5. Basic Electronics - Transistors, Transistor Configurations ,Transistor Regions of Operation, Transistor Load Line Analysis, types of transistors Basic Electronics - JFET ,Basic Electronics - MOSFET
6. LED operation & Multi meter and its importance in electronics engineering.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to Identify different electronics components	PO1, PO3	2
CO2	Able to design the circuits on bread board.	PO1, PO3	3
CO3	Able to do use multimeter and able to do soldering	PO1, PO3	3

Assessment Procedure: The assessment of the Addon course is conducted on Multiple Choice Questions through offline mode.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 23.07.2019.

PROGRAM REPORT

Name of the Add-on Course: Modelling of Switched Mode Power Conversion

Day/Duration : 15-07-2019 to 22-07-2019 (7 Days) - 40Hrs

Time : 09:30AM to 04:30 PM

Resource Person : Dr .P. Devendra, Associate Professor, GVPW

Name of the Coordinator: Ms. V. V. Sai Santoshi, Asst. Professor, Dept of EEE, VIEW

Number of Participants : 60

Course Objectives:

1. This course introduces the basic concepts of switched-mode converter circuits for controlling and converting electrical power with high efficiency.
2. Principles of converter circuit analysis are introduced, and are developed for finding the steady state voltages, current, and efficiency of power converters.

Topics Covered: The following topics covered in this program

1. Switched mode power conversion – Overview
2. Non-isolated converters.
3. Isolated converters.
4. Modeling of converters,
5. Controller basics.
6. Control Design Principles
7. Modeling of PID Controller

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Understand what a switched-mode converter is and its basic operating principles and molding of SMPS	PO5	3
CO2	Be able to solve for the steady-state voltages and currents of step-down, step-up, inverting, and other power converters	PO3	3
CO3	Design an Average equivalent circuit model and solve for the Converter efficiency	PO5	3

Assessment Procedure: The assessment of the Addon course conducted in Multiple Choice Questions through offline mode.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 23.07.2019.

PROGRAM REPORT

Name of the Add-on Course: Programino IDE for Arduino

Day/Duration : 15-07-2019 to 22-07-2019 (7Days) - 40Hrs

Time : 09:30AM to 04:30 PM

Resource Person : Mr. P. Trinadha Naga Satish, M.T Steel Plant, Visakhapatnam.

Name of the Coordinator: Mr. V. Avinash, Assistant professor.

Number of Participants : 64

Course Objectives:

1. This course is intended for enthusiastic students or hobbyists. With Arduino, one can get to know the basics of microcontrollers and sensors very quickly and can start building prototypes with very little investment.
2. This course is intended to make you comfortable in getting started with Arduino.

Topics Covered: The following topics covered in this program

1. Introduction to embedded system
2. Getting Starting with Arduino
3. Review of Basic Concepts
4. Arduino I/O Functions
5. Arduino Time & Arduino Displays
6. Arduino Secondary Integrations & Giving Input to the Controller
7. Arduino Communications.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Implement Arduino Language For Real Time Process.	PO3	3
CO2	Explore the code and online resources for extending knowledge about the capabilities of the Arduino microcontroller	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline mode.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 30.12.2019

PROGRAM REPORT

Name of the Addon Course:Industrial based PLC Programming

Day/Duration :19.12.2019 to 27.12.2019 (7 Days) - 40 Hrs

Time : 09:30AM to 04:30 PM

Resource Person : Dr.Arundhati Baratam, Professor, Dept.of EEE, VIIT, Dhuvvada.

Name of the Coordinator: Mr. P.V. Sarath, Asst. Prof.

Number of Participants : 57

Course Objectives:

1. To understand different PLC registers and their description.
2. To have knowledge on data handling functions of PLC.
3. To know how to handle analog signals and converting of A/D in PLC.

Topics Covered: The following topics covered in this program

1. **Introduction to the PLCs and their I/O modules.**
2. **PLC Programming PLC Programming-1:**Input instructions, outputs, operational procedures
3. **PLC Programming PLC Programming-2:**
   Digital logic gates, programming in the Boolean algebra system, conversion examples. Ladder diagrams and sequence listings, ladder diagram construction.
4. **Programmable Timers and Counters**:
5. **Program Control Instructions**:
6. **Other Instructions**
7. **Applications:**
   Control of water level indicator – Alarm monitor - Conveyor motor control – Parking garage – Ladder diagram for process control – PID controller.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Effectively write basic and intermediate level PLC programs.	PO5	3
CO2	Monitor variable values in real time in program execution.	PO3, PO5	3
CO3	Able to Convert A/D in PLC	PO3, PO5	3

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Assessment Procedure: The assessment of the add-on course is conducted in Multiple Choice Questions through Google Form.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 30.12.2019

PROGRAM REPORT

Name of the Add-on Course: Advanced Simulation Tools for Power Electronics, Electromagnetics and Power systems

Day/Duration : 19.12.2019 to 27.12.2019 (6Days) - 40 Hrs

Time : 09:30AM to 04:30 PM

Resource Person : Mr.M.Suyog, Aakar, Professor, IIT Bombay
Name of the Coordinator: Mr. A. Chandraiah, Assistant Professor, EEE

Number of Participants : 61

Course Objectives:

1. To introduce the use of Advanced simulation tools of electrical Engineers so that research and publications are made easy.
2. To model and evaluate the test examples, to thereby enables the participants to identify the use of these tools for their research and design problems

Topics Covered: The following topics covered in this program

- Introduction to PSIM Software
- Power Electronics: Modeling of DC-DC converter
- PWM Generator with A/D Converter in Captious mode
- Introduction to power Forge Software
- Introduction Electromagnetics:
- Power Systems: Modeling of Transmission line
- Transient stability Analysis

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Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Understand the necessity of advanced tools to their research and design problem.	PO3, PO5	3
CO2	Hands-on experience will be gained on software (PSIM).	PO3,PO5	3

Assessment Procedure: The assessment of the add-on course is conducted in Multiple Choice Questions through offline mode.

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DEPARTMENT OF MECHANICAL ENGINEERING

Date: 03.02.2020

PROGRAM REPORT

Name of the Add-on Course: Basic level Modelling in AutoCAD

Day/Duration: 27.01.2020 to 31.01.2020 (5Days) - 35 Hours

Time:09:30AM to 04:30PM

Resource Person: Mr. Venna Vijay Kumar, Cordinator, APSSDC

Name of the Coordinator: Mr. LV Suryam. Assistant Professor.

Number of Participants: 38

Course Objectives:

1. To learn about fundamental commands of AutoCAD
2. To explain the steps for creating 2D &3D Models

Topics Covered: The following topics covered in this program

1.The Command Window ,The Mouse ,New Drawings Create Your Own Drawing, Template File, Units, Model Scale

2.Overlapping Objects Geometry The User Coordinate System Grid Display Circles, Polylines and Rectangles Hatches and Fills

3.Simple 2D Geometries using 2D Commands

4.3D Commands: Extrude, loft, Fillet,Modeling of 3D Objects

5. Creation of 3D objects using 3D commands

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to understand to fundamental tools of AutoCAD	PO3	3
CO2	Able to apply tools for Creating Simple Objects	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions.

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DEPARTMENT OF MECHANICAL ENGINEERING

Date: 26/05/2020

PROGRAM REPORT

Name of theAdd-on Course: Advanced deformation techniques and its effects

Day/Duration:04/05/2020 to 24/05/2020 (21Days) - 42 Hours

Time:6:00PM to 8:00PM

Resource Person: Dr. G. Swami Naidu, Professor, JNTUK-UCEV.

Name of the Coordinator: Mr. Ch. Suresh, Assistant Professor.

Number of Participants:38

Course Objectives:

1. To understand the various types of advanced deformation techniques.
2. To assess the evaluation of light weight alloys by advanced deformation techniques.

Topics Covered:The following topics covered in this program

1. Introduction
2. Aluminium and its Alloys
3. Strengthening Mechanisms
4. Ultrafine grains (UFGs)
5. Severe plastic deformation (SPD) Techniques
6. Equal channel angular extrusion (ECAE)
7. Copper shielding
8. Characterization equipment
9. Machine learning Introduction
10. Machine learning Basics
11. ECAE Characteristics
12. Evaluation of Structural and mechanical Properties
13. Requirement of deformation load
14. Microscopic Study of AA 5083 before ECAE
15. Microscopic Study of AA 5083 before ECAE without shielding
16. Microscopic Study of AA 5083 before ECAE with Cu Shielding
17. Vickers micro hardness test
18. Nano Indentation Test
19. Tensile testing
20. Wear Test
21. Conclusion.

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Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to understand various types of advanced deformation techniques	PO3	3
CO2	Ableto applyvarious tools of advanced deformation techniques of different metal alloys.	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions through Google Form.

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DEPARTMENT OF MECHANICAL ENGINEERING

Date:16.09.2019

PROGRAM REPORT

Name of theAdd-on Course: Drafting using CATIA V6

Day/Duration:09.09.2019 to 14.09.2019 (6Days) - 36 Hours

Time:09:30AM to 03:30PM

Resource Person: Kolagadi Jaya Durga Phani, Cordinator, APSSDC

Name of the Coordinator: Mrs. U. Ramya Sri, Assistant Professor.

Number of Participants:46

Course Objectives:

1. To learn about fundamental commands ofCATIA V6
2. To explain the steps for creating 2D &3D Models

Topics Covered:The following topics covered in this program

1.Fundamentals of sketching toll commands

2. Creation of Part Drawing of automobile parts by using part modeling

3. Assembly of Parts of Automobile by using CATIA V6

4.Sheet metal operations by using CATIA V6

5. Surfacing workbenches of CATIAV6

6. Drafting workbenches of CATIAV6

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Understand to fundamental tools of CATIA V6	PO3	3
CO2	Apply tools for Creating Automobile parts	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions.

16/9/19

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 04-12-2019

PROGRAM REPORT

Name of the Add on Course : Problem Solving Skills using C

Day/Duration : 25-11-2019 to 30-11-2019 (6 days) – 36 Hrs

Time: 9.30 AM – 4.30 PM

Resource Person : Dr P Vijaya Bharathi, Associate Professor, Department of CSE

Name of the Coordinator : Mr. B. Sai Bharadwaj, Asst.Professor.

Number of Participants : 62

Course Objectives:

1. Formulate simple algorithms for arithmetic and logical problems
2. Use arrays, pointers and structures to formulate algorithms and programs

Topics Covered : The following topics covered in this program

1. Introduction to Problem Solving through programs, Importance of C, Basic structures of C Programs, Programming Style, Executing a C program.
2. Syntax and Semantic errors, Variables and Data Types: Introduction, character set, C tokens, keywords and Identifiers, Declaration of variables, assigning values to variables, Defining symbolic constants.
3. Operations and expressions: Introduction, Arithmetic expressions, Arithmetic operations, Relational Operations, Logical expressions; Increment and decrement operators, Conditional operators, Bitwise operators, Special operators, Evaluation of expressions, Precedence of arithmetic operations, Types conversions in expressions, operator precedence and Associativity.
4. Introduction to Conditional Branching, Decision making with if statements, nesting, the switch statements, while loops, The do statements, Jumps in Loops.
5. 2-D arrays, Declaration and Initialization of 1D and 2 D arrays, Example programs- Linear search, Binary search, Bubble Sort, Selection Sort, Character Arrays and Strings: Declaring and Initialization, Arithmetic operations on characters, String handling functions, Two-dimensional Character arrays.
6. Structures and Pointers: Declaring Pointers, Initialization of Pointer variables, accessing a variable through a pointer, pointer expressions, category of functions, Passing arrays to functions.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Apply programming to solve matrix addition and multiplication problems and searching and sorting problems.	PO1, PO2, PO5	3
CO2	Apply programming to solve simple numerical method problems.	PO1, PO2, PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 04-12-2019

PROGRAM REPORT

Name of the Addon Course : Foundation Basics of Electronics

Day/Duration : 25-11-2019 TO 30-11-2019 (6 Days)- 36 Hrs

Time: 9.30AM- 4.30 PM

Resource Person: Md. Ajmal, Datapro

Name of the Coordinator: Mr. V.S.V. Ranga Das, Asst. Prof.

Number of Participants: 56

Course Objectives:

1. To familiarize the concepts of electronic circuits and their circuit behavior
2. To analyze the analog circuits using frequency domain techniques

Topics Covered:The following topics covered in this program

1. Introduction to Electronic Circuit Theory, Fundamentals of DC Circuits, DC transient Analysis: Transient response of RL, RC, RLC circuits under DC Excitation, AC circuit analysis: Sinusoidal voltage and current, Definition of Instantaneous, Peak-to-peak, Root mean square and average values, Voltage-Current relationship in resistor, inductor and capacitor, phasor circuits , Instantaneous Power, Average power, Reactive Power, Power factor..
2. Introduction to semiconductor devices & circuits, Small Signal Analysis, DC and AC Load Line Analysis, Hybrid Model of CE Configuration,Quantitative Study of Frequency Response of CE Amplifier, Effect on Gain and Bandwidth for Cascaded RCCoupled CE Amplifier.
3. Circuit Modeling: Simple Series Circuit using an Equation Solver, PSpice Solution of Simple Series Circuit, Characteristic with Temperature Dependence, Thevenin Solution, Diode Models,Diode Circuits, Rectifier, Clipping, Zener Circuits, Clipping , MOSFETS , PSpice AC, DC, Transient, and Bias, Point Simulations, MOSFET as Switch, Resistive Pull-up, Active Pull-up, Drive an LED, Basic NMOS Gate,Ohmic and SAT Regions, Bias with Current Source, MOSFET Small-Signal Analysis, Small-Signal Model,Common-Source Amplifier, Source-Follower, Input and Output Impedance, Bipolar Junction Transistors,Hybrid-pi Model, Common Emitter Amplifier, EmitterFollower, Input and output Impedance, Op-Amps, Analysis using Subcircuits
4. Frequency Domain Representation of Signals, Spectrum Analysis of Aperiodic signals, General Principles of Non-linear devices in frequency domain.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Formulate and solve first-order transients.	PO1, PO2, PO3	3
CO2	Analyze the spectra of non-periodic signals	PO1, PO2, PO3	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 04-12-2019

PROGRAM REPORT

Name of the Addon Course: PCB Design & fabrication

Day/Duration : 25-11-2019 to 30-11-2019 (6 days)- 36 Hrs

Time: 9.30 AM – 4.30 PM

Resource Person: T Pradeep, Applyvolt

Name of the Coordinator: Mr. D. Tilak Raju, Asst. Prof.

Number of Participants: 61

Course Objectives:

1. To understand the procedural steps for the design of PCB board for projects.
2. To construct hardware components on the designed PCB board.

Topics Covered: The following topics covered in this program

1. PCB Fundamentals: PCB Advantages, Components of PCB, Electronic Components, Microprocessors and Microcontrollers, IC's, Surface Mount Devices (SMD), Classification of PCB, Single, Double, Multilayer and Flexible Boards, Manufacturing of PCB, PCB Standards.
2. Schematic and Layout Design: Schematic Diagram, General, Mechanical and Electrical Design Considerations, Placing and Mounting of Components, Conductor Spacing, Routing Guidelines, Heat Sinks and Package Density, Net List, Creating Components for Library, Tracks, Pads, Vias, Power Plane, Grounding.
3. Technology of PCB: Design Automation, Design Rule Checking, Exporting Drill and Gerber Files, Drills, Footprints and Libraries, Adding and Editing Pins, Copper Clad Laminates, Materials of Copper Clad Laminates, Properties of Laminates (Electrical and Physical), Types of Laminates, Soldering Techniques, Film Master Preparation, Image Transfer, Photo Printing, Screen Printing, Plating Techniques Etching Techniques, Mechanical Machining Operations, Lead Cutting and Soldering Techniques, Testing and Quality Controls.
4. PCB Technology: Trends, Environmental Concerns in PCB Industry, Hands on experience-Differential Amplifier, PCB Design flow Tools, Practical Sessions.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of Mapping
CO1	Develop a PCB board to connect the hardware components.	PO3, PO6, PO7	3
CO2	Experiment with the designed circuit.	PO3, PO6, PO7	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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Date: 16-07-2019

PROGRAM REPORT

Name of the Addon Course: Design for Embedded and IoT

Day/Duration : 08-07-2019 to 13-07-2019 (6 Days) – 36 Hrs.

Time: 9.30 AM – 4.30 PM

Resource Person: S.Venkatesh, Electro pro

Name of the Coordinator: Mrs. Ch. Anitha Bhavani, Asst.Prof.

Number of Participants: 70

Course Objectives:

1. To design and develop embedded systems and IoT applications using ARM Processor.
2. To understand the communication interfaces and technologies available for the design of embedded system.

Topics Covered: The following topics covered in this program

1. Introduction to ARM, Embedded system definition, Microprocessor and Micro Controller, ARM processor architecture, The ARM Embedded Systems, NXP LPC 1768, BBC Micro-bit.
2. Introduction to IoT, Change of lives with IoT, Potential IoT applications-Home, Security, Safety, Energy, Transport etc.
3. IoT Enabling Technologies, Sensors & Actuators, Communications, RFID and NFC, Blue tooth Low energy, Li-Fi, 6Low Pan, Web Socket, Zig-bee, HTTP, MQTT, XMPP, Hardware and software requirements, Connecting embedded to PC, Embedded C++/C Programming Language.
4. Digital inputs and outputs, Bus-in, Bus-out, Accelerometer and Magnetometer, SD Card, Local File System, Interrupts, Digital Interfaces, Networking and Communications, Ethernet, Wi-Fi, Debugging, libraries and Programs, Hands on Sessions for weather monitor, green house farming, Shopping RFID readers etc.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Develop working prototypes	PO3, PO5, PO6, PO7	3
CO2	Focus on working with ARM processor for sending data from onboard sensors to cloud	PO3, PO5, PO6, PO7	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 15- 07-2019

PROGRAM REPORT

Name of the Addon Course: Problem solving skills using C++

Day/Duration : 08-07-2019 to 13-07-2019 (6 days) – 36 Hrs.

Time: 9.30 AM - 4.30PM

Resource Person: Md. Ajmal, Datapro

Name of the Coordinator: Mr. P. Gopi Krishna

Number of Participants: 66

Course Objectives:

1. To describe the concepts of streams, classes, functions, data and objects.
2. To discuss the concepts of function overloading, operator overloading, virtual functions.

Topics Covered: The following topics covered in this program

1. Introduction to C++: Differences between C & C++, Evolution of C++, Object Oriented Programming, Characteristics of an Object Oriented Language. Data Structures: Definition of Stack, Array Implementation of Stack, Conversion of Infix Expression to Prefix and Postfix Expressions, Evaluation of Postfix Expression.
2. Classes and Objects & Constructors and Destructor, Classes in C++, Member functions, Constructors, Destructors. Definition of Queue, Circular Queues, Array Implementation of Queues, Linked List and its Implementation, Link List Implementation of Stack and Queue, Circular and Doubly Linked List. Pointers & Binding in C++, Virtual functions, Overloading of Template function, Vectors, Lists & Maps
3. Searching and Sorting: Insertion Sort, Selection Sort, Bubble Sort, Merge Sort, Linear Search, Binary Search, Trees, Introduction to Trees, Binary Search Tree, Insertion and Searching in a BST, Preorder, Post-order and In-order Traversal (Recursive).

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Apply C++ features	PO3, PO5	3
CO2	Build C++ classes using appropriate encapsulation and design principles.	PO1, PO2, PO3, PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions .

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 16-07-2019

PROGRAM REPORT

Name of the Addon Course: Arduino Programming

Day/Duration : 08-07-2019 to 13-07-2019 (6 Days)-36 Hrs

Time: 9.30AM -4.30PM

Resource Person: Mr Seshu Patnaik, Electro pro

Name of the Coordinator: Mrs. S. Malathi, Asst. Prof.

Number of Participants: 67

Course Objectives:

1. To program Arduino with C/ C++
2. To build Arduino circuit with hardware components

Topics Covered: The following topics covered in this program

1. Arduino Sketch Structure and Flow: Loop Demonstration Sketch, Functions in the Loop Demonstration Sketch, Summary of Functions, Calling Functions, Passing a value to a function.
2. Variables, Variable Types, Using a variable in a sketch, Types of Variables, Naming and Initialization of variables, Arithmetic Operators, Arithmetic Sketch, Comments on the Sketch, Rational Operators, Types of Relational Operators, Relational Operator Sketch, Arduino Increment Operator, Printing and Incrementing, Post Incrementing, Commenting Sketches, Multi-line Comments, Single line comments.
3. The Arduino for loop, while loop, if statements, making decisions with if-else, Initialization, Increment, counting, While Loop structure, Arduino If statement structure, Practical sessions on practicing the programs.
4. Arduino sketch from the Serial Ports, Serial Inputs, strings, Arrays, Defining, accessing, Initializing and uses of arrays, String character arrays, example sketches, Manipulating string arrays, Functions to manipulate string arrays, Array bounds, Arduino String objects, uses of string arrays. Getting serial input, string input, finding the end of the string, Building the string, Sketch Limitations.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Develop Arduino projects for real-time applications	PO3, PO5, PO6, PO7	3
CO2	Communicate between Arduino and computer through Serial ports for remote control.	PO3, PO5, PO6, PO7	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 10-12-2019

PROGRAM REPORT

Name of the Addon Course : Data Structures and Algorithms using Java

Day/Duration : 2-12-2019 to 07-12-2019 (6 Days)- 36 Hrs

Time: 9.30AM-4.30PM

Resource Person: Md. Ajmal, Datapro

Name of the Coordinator: Mr. K. Rajendra Prasad, Asst.Prof.

Number of Participants: 69

Course Objectives:

1. To understand the details of data structures and algorithms
2. To write programs for different data structures and algorithms in JAVA

Topics Covered: The following topics covered in this program

1. Data Structures: Definition of Stack, Array Implementation of Stack, Conversion of Infix Expression to Prefix and Postfix Expressions, Evaluation of Postfix Expression.
2. Introduction to OOP, procedural programming language and object oriented language, principles of OOP, applications of OOP, history of java, java features, JVM, program structure. Variables, primitive data types, identifiers, literals, operators, expressions, precedence rules and associativity, primitive type conversion and casting, flow of control.
3. Classes and objects, class declaration, creating objects, methods, constructors and constructor overloading, garbage collector, importance of static keyword and examples, this keyword, arrays, command line arguments, nested classes.
4. Introduction to Data Structures and Algorithms, Java Implementation of 1D, 2D arrays and its operations, Linked Lists, stack and Queue, Java implementation of linked lists, stack and queue
5. Binary Trees: Representation and Operations, Variations of binary tree: Binary search tree, Height balanced search tree, HeapTree.Java implementation of binary trees and its variations
6. Searching & Sorting Algorithms, Greedy Algorithms, Shortest Path algorithms, Euclids Algorithms, JAVA implementation of graph data structures, and other algorithms.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Write and trace the algorithms.	PO3, PO4, PO5, PO6, PO7	3
CO2	Apply programming knowledge to solve the problems demanded by the industry.	PO3, PO4, PO5, PO6, PO7	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 10-12-2019

PROGRAM REPORT

Name of the Addon Course: ANSYS HFSS

Day/Duration : 02-12-2019 to 07-12-2019 (6days)-36 hrs

Time: 9.30AM-4.30PM

Resource Person: Dr.Puvvada Ramesh, Rtd.Professor.

Name of the Coordinator: Mrs. B. Manjula, Asst.Professor.

Number of Participants: 61

Course Objectives:

1. To model simple and complex composite models in ANSYS
2. To work with different ANSYS tools.

Topics Covered: The following topics covered in this program

1. Basics of ANSYS HFSS geometry design and the EM simulation workflow, Introduction to ANSYS software and ACP tools, Solution set up using ANSYS, Post processing, Geometry Construction, Schematics model and design, draping, rules, step by step process to design.
2. Antenna-related HFSS topics such as radiating boundaries, including how well they absorb energy from different angles, and hybrid regions which connect different antenna simulations together. HFSS Antenna of both finite element analysis (FEA) volumetric simulation as well as integral equation (IE) simulation , connect a reflector antenna dish simulation to a horn antenna simulation feeding the dish. HFSS Antenna practices impedance matching antenna with circuit elements and examples of finite array design analysis with unit cells and Floquet modes.
3. Composite materials used for the design of antenna and its characteristics, Design of Micro-strip patch antenna. Different patch shapes and their characteristics in the design of Micro-strip Patch Antenna, Analysis of Micro-strip patch antenna with different substrate materials and patches for 4G applications

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Analyze the characteristics of Micro-strip Patch antenna for different models designed using ANSYS.	PO3, PO4	3
CO2	Develop the designed antenna in ANSYS for 4G applications	PO3, PO4	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 10-12-2019

PROGRAM REPORT

Name of the Addon Course : Advanced Optical Communications

Day/Duration : 02-12-2019 to 07-12-2019 (6 days)- 36 Hrs

Time: 9.30 AM – 4.30 PM

Resource Person: Mr. A. Sesha Rao, Rtd. Scientist, NSTL

Name of the Coordinator: Mr. S. Tarun Prasad, Asst. Prof.

Number of Participants: 65

Course Objectives:

1. To understand the advanced concepts of optical communication.
2. To discuss the effects of multiplexing and multi-band modulation techniques used in optical communication.

Topics Covered: The following topics covered in this program

1. Noise sources, channel impairments, and optical transmission systemdesign principles(ii) Advanced modulation formats, OFDM, polarization multiplexing,constrained coding, and coherent detection: Multilevel modulation schemes,Orthogonal frequency-division multiplexing (OFDM),Polarization multiplexing,
2. Constrained (line or modulation) coding, andCoherent detection, Forward error correction (FEC): Linear block codes and cyclic codes,BCH and RS codes,Concatenated codes,Turbo- and turbo-product codes, andLDPC codes.
3. Coded modulation schemes:Multilevel coding,Bit-interleaved coded modulation, andCoded OFDM.Advanced chromatic dispersion compensation:Signal pre-distortion compensation,Post-detection compensation: feed-forward equalizer (FFE),decision-feedback equalizer (DFE), maximum-likelihood sequenceestimation (MLSE) or Viterbi equalizer (VE), turbo equalization (TE);Compensation of chromatic dispersion by OFDM.Advanced PMD compensation:Optical compensation techniques,Electrical compensation techniques,
4. Nonlinearity management:Compensation of intrachannel and interchannel nonlinearities, Compensation of nonlinear phase noise,Digital back-propagation method, andTurbo equalization.Spatial-Domain-Based Multiplexing and Modulation, Optical channel capacity: Channel Capacity Preliminaries, Calculation of information Capacity, Information Capacity of Systems with Direct Detection, Information Capacity of Multilevel Systems with Coherent Detection, Capacity of Optical OFDM Systems, Channel Capacity of Optical MIMO MMF Systems

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Discuss the trade-off related to system engineering process	PO3, PO4	3
CO2	Develop a high-speed optical transmission system	PO3, PO4	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 09.01.2020

PROGRAM REPORT

Name of the Addon Course : The Joy of Programming using Advanced Python

Day/Duration : 30-12-2019 to 07-01-2020 (42 Hours)

Time : 09:30AM to 04:30PM

Resource Person : Mr.Kantha Reddy, Technical Head, Brain O Vision Pvt Ltd, Hyderabad

Name of the Coordinator: Mrs. R. Pravallika, Asst. Prof.

Number of Participants : 64

Course Objectives:

1. The course focuses primarily to inspire the learner's mind to think logically and arrive at a solution programmatically.
2. To practice and culture the art of programming with Python as a language.

Topics Covered: The following topics covered in this program

1. Introduction to Python – Basic concepts, Design your own calculator
2. Google Translate : Speak in any Language
3. Sentiment Analysis: Analyse your Facebook data,20 questions game: I can read your mind
4. Sorting: Arrange the books, Searching : Find in second
5. Recursion : Tower of Hanoi
6. Spot the similarities : Dabble game
7. Image Processing : Fun with images

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Learn Problem solving and programming capability.	PO2	3
CO2	Create robust and readable applications and fun games.	PO3	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 09.01.2020

PROGRAM REPORT

Name of the Addon Course : LAMP(Linux,Apache,Mysql,PHP)

Day/Duration : 30-12-2019 to 07-01-2020 (42 Hours)

Time : 09:30AM to 04:30PM

Resource Person : Mr.L.Simhadri Rao, Technical Trainer, Miracle Software Solutions

Name of the Coordinator: Mrs. M. Sailaja, Asst Prof, , Dept of CSE.

Number of Participants : 63

Course Objectives:

- The course focuses primarily to understand the basics of Linux,Apache,Mysql,PHP.
- To develop web applications.

Topics Covered: The following topics covered in this program

1. Introduction to LAMP ,Basic concepts.
2. UNIX/LINUX file security Permissions rules &concept, Apache web Server Administration.
3. XHTML & HTML5.0,Development Orientation Training for Java Script.
4. Cascading Style Sheets, Document object model.
5. Advance PHP,My SQL database.
6. AJAX,Web Applications.
7. Apache web Server Administration, Browsing the File System.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Provides a proven set of software for delivering high-performance web applications.	PO3	2
CO2	Understand Web Application Terminologies, Internet Tools, E – Commerce and other web services.	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 09.1.2020

PROGRAM REPORT

Name of the Addon Course : Web Development from Scratch

Day/Duration : 30-12-2019 to 07-01-2020 (42 Hours)

Time : 09:30AM to 04:30PM

Resource Person : Mr.Ganesh Nagu Doddi,CEO, Brain O Vision, Pvt Ltd, Hyderabad

Name of the Coordinator:, Mrs.G.Sandhya,Asst Prof.

Number of Participants : 63

Course Objectives:

- It provides a proven set of software for delivering high-performance web applications.
- Understand Web Application Terminologies, Internet Tools, E – Commerce and other web services.

Topics Covered: The following topics covered in this program

1. Introduction to HTML and CSS, HTML & CSS Project
2. Master JavaScript and JQuery, JavaScript Events, Master PHP
3. MySQL ,Learn to Build web apps using Yii
4. Understand the use and application of XML, JSON and Ajax
5. Fetching Data With Ajax
6. XML With DTD Schema
7. Build great web apps and sites

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Develop an ability to design and implement enterprise-level web apps.	PO3	2
CO2	Understand Web Application Terminologies, Internet Tools, E – Commerce and other web services.	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 27.7.2019

PROGRAM REPORT

Name of the Addon Course : Mobile Application Development

Day/Duration : 19-7-2019 to 25-7-2019 -36 Hrs

Time : 09:30AM to 04:30PM

Resource Person : Ms.P.Sakhambari and Ms.Ch.Nandini, Technical Trainers, APSSDC.

Name of the Coordinator: Mrs. G. Pavani latha, Asst Prof,Dept of CSE.

Number of Students registered : 65

Number of Participants : 64

Course Objectives:

- To facilitate students to understand android SDK.
- To help students to gain a basic understanding of Android application development.

Topics Covered: The following topics covered in this program

1. **Introduction to Android Operating System:** Android OS design and Features – Android development framework, SDK features, Installing and running applications on Android Studio, Android tools.
2. **Android application components** – Android Manifest file,Resources for different devices and languages, Runtime Configuration Changes Android Application Lifecycle.
3. **Android User Interface:** Measurements – Device and pixel density independent measuring unit, Layouts , Components, Event Handling, Fragments.
4. **Intents and Broadcasts:** Intent. Broadcast Receivers – Using Intent filters to service implicit Intents, Resolving Intent filters, finding and using Intents. Notifications – Creating and Displaying notifications, Displaying Toasts.
5. **Persistent Storage:** Files, listing contents of a directory Shared Preferences – Creating shared preferences, saving and retrieving data using Shared Preference.
6. **Database** –Introduction to SQLite database, creating and opening a database, creating tables, inserting retrieving and editing data.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Identify various concepts of mobile programming that make it unique from programming for other platforms	PO2	3
CO2	Deploy applications to the Android marketplace for distribution.	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 27.7.2019

PROGRAM REPORT

Name of the Addon Course : Essentials of IoT and Applications

Day/Duration : 19-7-2019 to 25-7-2019 -36 Hrs

Time : 09:30AM to 04:30PM

Resource Person : Mr.D.Satish, Associate Professor, Dept of CSE, Lendi Institute of Engineering and Technology.

Name of the Coordinator:, Mr. I. Raju, Asst Prof,Dept of CSE.

Number of Students registered : 67

Number of Participants : 65

Course Objectives:

- To understand the recent application domains of IoT in everyday life
- To design and build an actual IoT system.

Topics Covered: The following topics covered in this program

1. Introduction to Internet of Things: Application areas of IoT, Characteristics of IoT, Things in IoT, IoT stack, Enabling technologies, IoT challenges, IoT levels, IoT and cyber physical system, IoT and WSN.
2. Sensors, Microcontrollers, and Their Interfacing: Sensor interfacing, Types of sensors, Controlling sensors, Microcontrollers, ARM.
3. Protocols for IoT: Messaging protocols, Transport protocols, IPv4, IPv6, URI.
4. Cloud for IoT: IoT and cloud, Fog computing, Security in cloud, Case study.
5. Application Building with IoT: Various application of IoT : Food, Healthcare, Lavatory maintenance, Water quality, Warehouse, Retail, Driver Assistance, Collision impact.
6. Arduino and Raspberry Pi: Architecture and Programming.
7. IoT Security: Various security issues and need, architecture, requirement, challenges and algorithms.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Choose the right hardware, software and protocols for the proposed application.	PO3	2
CO2	Learn the fundamentals of this emerging technology.	PO2	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 27.07.2019

PROGRAM REPORT

Name of the Addon Course	: **Parallel Computing**
Day/Duration	: 19-7-2019 to 25-7-2019 -36Hrs
Time	: 09:30 AM to 03:30PM
Resource Person	:Dr.T.Srinivas, Assoc Professor, Dept of CSE, GITAM
Name of the Coordinator	: Mrs.Y.Vineela Sravya
Number of students registered	: 67
Number of Participants	: 66

Course Objectives:

- To understand the technologies enabling parallel computing.
- To study the different types of interconnection networks.

Topics Covered: The following topics covered in this program

1. **Overview of Parallel Computing**
   Hardware and software paradigms
   Shared infrastructure
2. **Communication Paradigms**
   Point-to-point / collective communication
   Blocking / non-blocking communication
3. **Designing, Coding and Debugging**
   Foster's methodology
   Deadlock; race conditions
4. **Measuring Performance and Profiling**
   Performance metrics
   Compute-bound vs. memory-bound
5. **Parallel Algorithms and Libraries**
   Independent tasks; domain decomposition
   Parallel Matlab, PETSc
6. **Applications**
   Linear systems, eigenvalues, quadrature,
   Differential equations, optimization

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Understand implicit and explicit parallel platform.	PO2	2
CO2	Use different performance metrics for analysis of parallel algorithms.	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 15.2.2020

PROGRAM REPORT

Name of the Addon Course : **QUANTUM COMPUTING**

Day/Duration : 05-02-2020 to 12-2-2020 -35Hrs

Time : 09:30 AM to 03:30PM

Resource Person : Dr.B.Subba Rao, Director - SAMEER

Name of the Coordinator : Mrs. M. Mamatha Laxmi, Asst. Prof., Dept. of CSE.

Number of Participants : 68

Course Objectives:

- To understand the fundamentals of quantum information processing.
- To understand quantum cryptography and quantum information theory.

Topics Covered: The following topics covered in this program

1. Introduction: Quantum Measurements Density Matrices, Positive-Operator Valued Measure Fragility of quantum information: Decoherence, Quantum Superposition and Entanglement.
2. Fragility of quantum information: Decoherence, Quantum Superposition and Entanglement, Quantum Gates and Circuits.
3. Quantum Basics and Principles: No cloning theorem & Quantum Teleportation, Bell's inequality and its implications, Quantum Algorithms & Circuits.
4. Algorithms: Deutsch and Deutsch–Jozsa algorithms, Grover's Search Algorithm, Quantum Fourier Transform, Shore's Factorization Algorithm.
5. Performance, Security and Scalability: Quantum Error Correction: Fault tolerance; Quantum Cryptography, Implementing Quantum Computing: issues of fidelity; Scalability in quantum computing.
6. Quantum Computing Models: NMR Quantum Computing, Spintronics and QED MODEL, Linear Optical MODEL
7. Nonlinear Optical Approaches; Limits of all the discussed approaches, Future of Quantum computing.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Analyze the behavior of basic quantum algorithms.	PO2	3
CO2	Implement simple quantum algorithms and information channels in the quantum circuit model.	PO3	2

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Online.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 15-12-2020

PROGRAM REPORT

Name of the Addon Course: **Block Chain and it's Applications**

Day/Duration: 05-02-2020 to 12-2-2020- 35 Hrs

Time: 09:30AM to 04:30PM

Resource Person: Mr.T.Suresh, Team Leader, WIPRO

Name of the Coordinator: Mrs.V.Sree Lahari, Asst. Prof.,Dept of CSE.

Number of Participants: 63

Course Objectives:

- To understand the fundamental concepts and functionalities of Block chain.
- To understand methods in securing distributed ledgers and on their contents is achieved.

Topics Covered: The following topics covered in this program

1. Block chain Fundamentals: Tracing Block chain's Origin, The emergence of bit coin, The birth of block chain, Exploring a block chain application, key business benefits.
2. How Block chain Works: What Makes a Block chain Suitable for Business?, Identifying Participants and Their Roles.
3. Recognizing Types of Market Friction, Moving Closer to Friction-Free Business Networks, Reducing information friction, Transforming Ecosystems through Increased Visibility.
4. Block chain in Action: Use Cases: Financial Services, Commercial financing, Trade finance, Insurance, Government, Supply Chain Management, Healthcare, Electronic medical.
5. Hyper ledger, a Linux Foundation Project: Hyper ledger Vision, Hyper ledger Fabric, How Can IBM Help Developers Innovate With Block chain.
6. Offering an easily accessible cloud and development platform, Security and Safeguards, Protection from attackers.
7. Hacks on exchanges, what is stopping adoption? Scalability problems, Network attacks to destroy bit coin, Case Study: Failed currencies & block chain.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Understand the fundamentals of Block chain.	PO2	2
CO2	Understand how Block Chain can be integrated with various current technologies	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Offline.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 15-12-2020

PROGRAM REPORT

Name of the Addon Course: Computer Vision and Deep Learning
Day/Duration: 05-02-2020 to 12-2-2020 - 35 Hrs
Time: 09:30AM to 04:30PM
Resource Person Dr.Venkata Rama Sistla, Assoc Professor, Dept of CSE, VFSTR
Name of the Coordinator: Mr.R.Ravi, Asst. Prof.,Dept. of CSE.
Number of Participants: 58
Course Objectives:

1. To introduce students the major ideas, methods, and techniques of computer vision and pattern recognition;
2. To develop an appreciation for various issues in the design of computer vision and object recognition systems.

Topics Covered: The following topics covered in this program.

1. Applications of Computer Graphics and Image Processing, Fundamentals on Pixel concepts, effect of Aliasing and Jaggles
2. Translations, Scaling, rotation, reflection and shear transformations, Homogeneous coordinates, Composite
3. Metric and topological properties of Digital Images, Histogram, entropy, Visual Perception, Image Quality, Color perceived by humans, Color Spaces, Palette Images, color Constancy.
4. Pixel brightness transformations, Local Preprocessing, image smoothing, Edge detectors, Robert Operators, Laplace, Prewitt, Sobel, Fri-chen, Canny Edge detection.
5. Mathematical Concepts, Binary dilation and Erosion, Opening and closing, Gray Scale dilation and erosion, Skeleton, Thinning
6. Threshold detection methods, Optimal Thresholding, Edge based Segmentation-Edge image thresholding, Edge relaxation
7. Image data Properties, Discrete Image Transformations in data compression, Discrete Cosine and Wavelet Transforms, Types of DWT and merits.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Learn the basics as well as become proficient in applying these methods to real-world applications.	PO2	2
CO2	Apply various kinds of algorithms in Convolutional Neural Networks and will build filtering and image formation on computer vision.	PO1	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Offline.

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DEPARTMENT OF INFORMATION TECHNOLOGY

Date: 18.09.2019

PROGRAM REPORT

Name of the Add-on Course: **Hands-On Programming with R**

Day/Duration: 09.09.2019 to 16.09.2019(7 Days) - 35 Hours

Time: 09:30AM to 04:30PM

Resource Person: Mrs. S. Kalyani, Associate Professor, IT, VIEW, Visakhapatnam

Name of the Coordinator: Mr. M. Soma Sundar Rao, Assistant Professor, Dept. of IT

Number of Participants: 54

Course Objectives:

Understand, Analyze, Interpret Correlation and Regression to analyze the underlying relationships between different variables.

Topics Covered: The following topics covered in this program

1. Introduction to R Programming, how to run R, R sessions and functions.
2. Arrays and classes, loops-looping and if-else.
3. Returning complex objects and functions are objective.
4. Calculus, functions for statistical distribution and sorting.
5. Reading and writer files, graphics and creating graphs.
6. Poisson distribution and other distribution, T-tests and –ANOVA.
7. Logistics regression, Poisson regression, Non-Linear models.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to install code and use R Programming language in R studio IDE to perform basic tasks on vectors, Matrices and Data frames.	PO1	3
CO2	Able to describe key terminologies, concepts and techniques employed in statistical analysis.	PO3	3
CO3	Able to conduct and interpret a variety of Hypothesis Tests to aid Decision Making.	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions through Google Form.

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B. Prasad
Head of the Department

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DEPARTMENT OF INFORMATION TECHNOLOGY

Date: 13.02.2020

PROGRAM REPORT

Name of the Add-on Course: WordPress Website Development.

Day/Duration: 03.02.2020 to 11.02.2020(8 Days) - 40 Hours

Time: 09:30AM to 04:30PM

Resource Person: Mr. GANESH NAGU DODDI, CEO, Brain O Vision, Visakhapatnam

Name of the Coordinator: Mr. Y. LaxmanRao, Assistant Professor, Dept. of IT

Number of Participants: 54

Course Objectives:

- Learn basics to advanced modules in WordPress.
- Build easy to create and manage website for beginners.
- Learn Blog Posting and Blog created to website.

Topics Covered: The following topics covered in this program

1. Installing WordPress with a Web Host's "I-Click Install".
2. Creating a New Blog Post and using the Visual Editor.
3. Adding a Featured image, Uploading images and Files directly.
4. Categories and Tags Explained and Creating and Editing Categories.
5. Pages versus Posts, Creating a New Page and Publishing a Page.
6. Creating Submenus and Opening Menu Links in a New Tab.
7. Customizing Colors and changing a Template Layout.
8. Setting Titles and Meta Descriptions with an SEO Plugin.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to Understand what a Content Management System is and how it differs from traditional and flat websites.	PO3	3
CO2	Able to modify the appearance and layout of WordPress websites.	PO5	3
CO3	Able to Select and integrate extra WordPress features.	PO2	3
CO4	Able to successfully organize and present content in WordPress.	PO2	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions through Google Form.

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VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN * VISAKHAPATNAM-49 *

B. Prakash
Head of the Department

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DEPARTMENT OF INFORMATION TECHNOLOGY

Date: 15.07.2019

PROGRAM REPORT

Name of the Add-on Course: Introduction to Cyber Security

Day/Duration: 08.07.2019 to 15.07.2019 (7 Days) - 35 Hours

Time: 09:30AM to 04:30PM

Resource Person: Mr. Sai Satish, CEO, Indian Servers

Name of the Coordinator: Mr. Ajay Kumar Badhan, Assistant Professor.

Number of Participants: 51

Course Objectives:

1. To describe typical threats to modern digital systems and to outline techniques of defense against each threat.
2. To describe the fundamentals of modern cryptography.
3. To describe the popular computer and network security mechanism and protocols.

Topics Covered: The following topics covered in this program

1. Introduction to Cyber Space and Information Security.
2. Wi-Fi Security and Guidelines for social media security.
3. IOS Security and Counter Cyber Security Initiatives in India.
4. Online and Mobile Banking Security, UPI Security
5. E-wallet Security Guidelines, POS and Social Engineering
6. Cyber Security Threat Landscape, CST and IT Act.
7. Web Application Security and Digital Infrastructure Security.

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Analyze and resolve security issues in networks and computer systems to secure on IT	PO3	3
CO2	Able to design, develop, test and evaluate secure software.	PO2	3
CO3	Develop policies and procedures to manage enterprise security, Interpret and forensically investigate security incidents.	PO5	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions through Google Form.

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B. Prakash
Head of the Department

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DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

Date: 12.12.2019

PROGRAM REPORT

Name of theAddon Course :**Talent Management**

Day/Duration :**18-11-2019 to 9-12- 2019**- 40 Hours

Time :**03:00 PM to05:00PM**

Resource Person :**DR. CH.HARI GOVINDHA RAO,DEAN-IQAC,VIIT**

Name of the Coordinator :**Mrs. M .Sirisha Rani**, Asst. Prof.

Number of Participants :**47**

Course Objectives:

1. Understand the interplay between various aspects of Talent Acquisition, retention and development of talent.
2. To impart knowledge on various challenges and issues to manage young talented employees.

Topics Covered:The following topics covered in this program

1. Talent Management- Introduction, Importance,Types
2. Talent gap, how to fill the gap, strategies to reduce talent gap
3. Reviews, 360 degree feedback
4. Training & Development (on the job, off the job)
5. Object oriented theory in talent management

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Able to know the processes behind talent retention, and succession planning, planning stages of talent management.	PO3	2
CO2	Helps to understand the ways to develop and improve talent on your team, and understand the process for searching and recognizing talent	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Google Form.

https://docs.google.com/forms/d/e/1FAIpQLSfEv5rWXLbVSAz5F4TP8RZfVuC5dZhMqx-sSdWlJBnCOef7lg/viewform

Coordinator

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DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

Date: 31.01.2020

PROGRAM REPORT

Name of the Addon Course :	**Microsoft Office**
Day/Duration :	**14.12.2019 – 30.01.2020 (20 Days) - 40 Hrs**
Time:	**3.00 PM – 5.00 PM**
Resource Person:	**Dr. K. Vijaya Kumar , Professor, VIEW**
Name of the Coordinator:	**Mrs. M. Satyavathi , Asst. Prof.**
Number of Participants:	**61**

Course Objectives:

- To be able to create documents for printing and sharing. To be able to create and share presentations. To be able to manage and store data in a spreadsheet.
- The ability to manage emails, calendars, and tasks will help them stay organized and productive. Support your students by helping them sharpen their technical skills in Microsoft Office.

Topics Covered: The following topics covered in this program

1. Introduction to Microsoft office, Microsoft word 2007 basic features, more basic features
2. Header and Footers, Merging documents, MS-Excel and Power point
3. Undoing and redoing setting page layouts and printing documents, Working with tables in Microsoft word 2007.
4. Creating tables of contents and figures in word 2007, Working with tables in Microsoft word 2007

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	It helps to navigate and perform common tasks in Word, such as opening, viewing, editing, saving, and printing documents, and configuring the application. Format text and paragraphs.	PO3	3
CO3	It helps to increase productivity for any employee, regardless of their previous level of experience in the software	PO3	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through offline.

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DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

Date: 21-09-2019

PROGRAM REPORT

Name of the Add on Course: Basics of MATLAB

Day/Duration: 11-09-2019 To 19-09-2019 (06 days) 36hrs

Time: 09:30AM to 04:30PM

Resource Person: Dr. K. DurgaShyam Prasad, Associate Professor, VIEW.

Name of the Coordinator: Mr. K. V. V. GaneswaraRao, Assistant Professor

Number of Participants: 39

Course Objectives:

1. To impart the knowledge of the MATLAB software.
2. To provide a working introduction to the MATLAB technical computing environment.
3. Create publishable, reproducible analysis reports.

Topics Covered: The following topics covered in this program

1. Introduction to MATLAB
2. Variables and Basic Functions
3. Basic Arithmetic Operations
4. Basics of Vectors andMatrices
5. Data Visualization
6. Conditional Statements
7. Loops
8. Functions

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Use MATLAB effectively to analyse and visualize data	PO3	3
CO2	Apply numeric techniques and computer simulations to solve engineering-related problems.	PO5	3
CO3	Demonstrate understand and use of fundamental data structures.	PO7	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES
PROGRAM REPORT

Date: 23/9/2019

Name of the Add-on Course: Engineering Drafting Packages

Day/Duration : **11/9/2019 to 19/9/2019 (6 Days) - 36 Hrs**

Time : **09:30AM to 04:30PM**

Resource person: Dr.Ch.RamaKrishna, Assoc Prof, VIEW

Faculty coordinator: Mr. S Giri Babu, Asst Professor.

Number of Participants: 12

Course Objectives:

- Basics of dimensioning,Lettering& representation of lines
- Different lines used for representation of different Engineering Sections.
- To know different angle of projection.

Topics Covered: The following topics covered in this program

- Introduction to engineering drawing
- Drawing and dimensions-learning outcomes
- Drawing instruments and accessories
- Dimension and sheet layout
- Dimension units and angles
  Direct dimensioning situations

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Describe Technical Drawing	PO1	3
CO2	Evaluate dimensions using angles and their features	PO3	3
CO3	Compare different methods conic section constructions	PO3	3

Assessment Procedure: The assessment of the Add on Course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

Date: 20/09/2019

PROGRAM REPORT

Name of the Add on Course: Foundation – Basics of Electronics
Day/Duration: 11/09/2019 to19/09/2019 (06 days) 36hrs
Time: 09:30AM to 04:30 PM
Resource Person: Dr.K.Murali Krishna, Professor, Dept of ECE.
Name of the Coordinator: Mrs. Nisha Haldar, Assistant Professor
Number of Participants: 52

Course Objectives:

By the end of this course, students should be able to;

- Provide an information of electronic circuits.
- Develop knowledge of an electronic circuits and connections.
- Improving students' understanding of the designing of complicated circuits.

Topics Covered: The following topics covered in this program

1. Building Circuits, Build circuits on breadboards
2. Resistors: Types of resistors, Resistor characteristics, Read resistor color codesMeasure resistance
3.Capacitors: What is a capacitor?, Types of capacitors, Read capacitor values
Capacitor characteristics, Capacitors in parallel, Capacitors in series
4. Alternating Current: Alternating current vs. direct current, Sine wave characteristics, Measure AC voltage
5. Electrical Signals: Frequency domain, Bandwidth and square waves, Signal sources
6. Reactive Circuits: Impedance, Filter frequency response, Logarithmic scale, Decibels

Course Outcomes:

Cos	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	To build the strong foundation in Mathematics of students needed for the field of electronics and Telecommunication Engineering	PO2	3
CO2	To provide students with mathematics fundamentals necessary to formulate, solve and analyses complex engineering problems.	PO3	3
CO3	To prepare student to apply reasoning informed by the contextual knowledge to engineering practice.	PO2	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: 20/9/2019

PROGRAM REPORT

Name of theAdd on Course:Relationship Skills
Day/Duration:11/9/2019 To 19/9/2019(6 Days) - 36Hrs

Time:09:30AM to 04:30PM

Resource Person: Dr.A.Sailaja, HOD, NIST
Name of the Coordinator: Dr. V.R.S.S.Srikanth, Associate Professor, Dept of BS&H

Number of Participants: 63

Course Objectives:

- Analyze personal needs, wants, values, short and long term goals, and their effect on problem solving and decision-making skills.
- Analyze factors influencing personality development.
- Evaluate strategies to manage common sources of stress for individuals and families.

Topics Covered: The following topics covered in this program

1. Power & Liberation
2. Values
3. Expectations & Negotiation
4. Accountability and Boundaries
5. Conflict
6. Community Connections

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Strengthen and maintain family relationships and reduce disruptive conditions that destabilize families.	PO8	3
CO2	Effective communicators and give them the knowledge and skills to face the many challenges of today's families.	PO12	3

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: **20.09.2019**

PROGRAM REPORT

Name of theAdd-on Course:LIFE SKILLS
Day/Duration:11.09.19 to 19.09.19(6 Days) – 36 Hrs
Time:09:30AM to 04:30PM
Resource Person: Dr.V.Radhakrishna Murthy, Soft skill Trainer,JCI
Name of the Coordinator: Mr. S Ravi Kumar, Assistant professor
Number of Participants:38
Course Objectives:

1. Familiarize students with basic aspects of life skills and its conceptual treatment and practical strategies
2. Develop general self awareness&self expression
3. Cultivate emotional awareness & emotional management
4. Improve social awareness within family and friends' context

Topics Covered: The following topics are covered in this program:

1. Why LIFE SKILLS? Measurement; Personal Development and Personality Development Interpersonal Communication & Intra-personal Communication
2. Leadership – Aspects and features; Teamwork – Dynamics and necessary features Work Habits – Effective and proactive
3. Rights & Responsibilities – Society, family, work place – work ethics; Financial Fitness – expenditure and income balance – fiscal discipline individual; Exploring Entrepreneurship – business ideas and helping the enterprises
4. Civic Engagement – constant connect with the surroundings – one's own role; Harmony & Stress Management – Work-life balances – time management – anger and frustration management
5. Culture, Grooming and Planning – cultural diversity and understanding one's own position; Understanding the big picture and the micro-cosmos – perceptional differences; Relationships –Sex and Sexuality – Gender sensitivity and sexist language – ethics
6. Health, Hygiene and Self care – fitness and food Empathy, Sympathy, Apathy – Keys to world of happiness – anticipation, expectation, eligibilities and dreams

Course Outcomes:

Cos	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Develop and exhibit and accurate sense of self.	6, 8,9 & 12	3
CO2	Develop and nurture a deep understanding of personal motivation.	6, 8,9 & 12	3
CO 3	Develop an understanding of and practice personal and professional responsibility.	6, 8,9 & 12	3
CO 4	Demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment.	6, 8,9 & 12	3

Assessment Procedure: The assessment of the Add- on course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: **15.02.2020**

PROGRAM REPORT

Name of theAdd-on Course:OFFICE ETIQUETTE
Day/Duration:08.02.20 TO 14.02.20(6 Days) – 36 Hrs
Time:09:30AM to 04:30PM
Resource Person: Mr. S. RavikathReddy, Master Trainer,JCI
Name of the Coordinator: Mr. S K Chaitanya Ch,Assistant Professor
Number of Participants:66
Course Objectives:

1. Enhance relationships in the workplace.
2. Promote business growth.
3. Enhance impression.
4. Help professionals gain business travel etiquette.
5. Enhance non-verbal communication.

Topics Covered: The following topics are covered in this program:

1. Etiquette and rules & regulations; Need for propriety and decency; Basic etiquette and its importance; Understanding different communication styles
2. Verbal and non verbal cues
3. Saying and doing the right things
4. The art and science of entertaining and socializing - Recognition of Personal space and workplace decorum & dignity; Effect of NO etiquette
5. Dress for success: Looking your best
6. Business travel, trade shows - Handling office conditions and colleagues; Gossip handling
7. International etiquette ; Being personal yet professional ; Personal branding; Corporate protocol
8. Active Listening and focused speaking- Noise management and understanding silences - Presentations; E mail etiquette - Building rapport and networking
9. Stress control measures and cool tips;
10. Health and hygiene factors; Role of emotional intelligence & temper conversations;
11. Telephone etiquette & cubical etiquette - Social skills and the well being

Course Outcomes:

Cos	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Define professional behavior and suggest standards for appearance, actions and attitudes in an office	6,8,9, 10 &12	3
CO2	Explain different communicative styles and how to adjust to each	6,8,9, 10 &12	3
CO 3	Prepare for handling a variety of social and business situations and business meetings	6,8,9, 10 &12	3
CO 4	Review dining attitude and behavior patterns	6,8,9, 10 &12	3
CO 5	Adopt proper dress code patterns for office	6,8,9, 10 &12	3

Assessment Procedure: The assessment of the Add-on course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: 17/2/2020

PROGRAM REPORT

Name of the Add-on Course: Report Generation On MS-Office
Day/Duration : 8/2/2020 to 14/2/2020 (6 Days) - 36 Hrs
Time : 09:30 AM to 04:30 PM
Resource person: Dr.K.Vijay Kumar,Associate Professor, Department of CSE
Faculty coordinator :Ms.K. Lavanya, Asst. Professor ,VIEW
Number of Participants : 61

Course Objectives:

- After finishing the course, candidates should be able to
- Know the features which are well suit for a large scale document project
- Pickup the most efficiency ways to start the project
- Keep the document's format consistent
- Format and design various layouts suitable for reports
- Manage and use templates to standardise their projects

Topics Covered: The following topics covered in this program

- Generating, updating toc
- Formatting toc entries,shading page, paragraphs, tables and texts
- Creating and update index
- Figures, applying borders to page, paragraphs, tables or texts
- Inserting captions
- Generating table of figures
- Updating table of figures

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Build spreadsheets to perform calculations, display data, conduct analysis, and explore what-if scenarios.	PO3	3
CO2	Design and construct databases to store, extract, and analyze scientific and real world data.	PO3	3
CO3	Create scientific and technical documents incorporating equations, images, tables, and bibliographies.	PO3	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: 15/2/2020

PROGRAM REPORT

Name of theAdd-on Course: Basics of Web Development & Coding
Day/Duration:8/2/2020 to14/2/2020 (6 Days) – 36 Hrs
Time:09:30AM to 04:30PM
Resource Person: Mrs.S.RamPrasad Reddy, Assistant Professor,Dept of CSE ,VIEW
Name of the Coordinator: Dr.G.MuniSarala, Associate Professor, Dept of BS&H ,VIEW

Number of Participants:59

Course Objectives:

1. To introduce the fundamentals of Internet, and the principles of web design.
2. To construct basic websites using HTML and Cascading Style Sheets.
3. To build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.
4. To develop modern interactive web applications using PHP, XML and MySQL Outcomes

Topics Covered: The following topics are covered in this program:

.1. Concept of WWW, Internet and WWW, HTTP Protocol : Request and Response, Web browser and Web servers, Features of latest version of Web.

2.Concepts of effective web design, Web design issues including Browser, Bandwidth and Cache, Display resolution, Look and Feel of the Website, Page Layout and linking, User centric design, Sitemap, Planning and publishing website, Designing effective navigation.

3. Basics of HTML, formatting and fonts, commenting code, color, hyperlink, lists, tables, images, forms, XHTML, Meta tags, Character entities, frames and frame sets, Browser architecture and Web site structure. Overview and features of latest version of HTML.

4. Need for CSS, introduction to CSS, basic syntax and structure, using CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, CSS2, Overview and features of of latest version of CSS.

5. Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas, Using XML with application. Transforming XML using XSL and XSLT.

6. Introduction and basic syntax of PHP, decision and looping with examples, PHP and HTML, Arrays, Functions, Browser control and detection, string, Form processing, Files, Advance Features: Cookies and Sessions

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Describe the concepts of World Wide Web, and the requirements of effective web design.	PO1	3
CO2	Develop web pages using the HTML and CSS features with different layouts as per need of Applications	PO2	3
CO3	Use the JavaScript to develop the dynamic web pages, Construct simple web pages in PHP and to represent data in XML format	PO3	3

Assessment Procedure: The assessment of the Add- on course is conducted in Multiple Choice Questions.

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DEPARTMENT OF BASIC SCIENCES & HUMANITIES

Date: 15.2.2020

PROGRAM REPORT

Name of theAdd on Course:Microsoft Fundamentals

Day/Duration :08.02.2020to 14.02.2020(6 Days) - 36Hrs

Time:09:30AM to 04:30PM

Resource Person: Mrs.S.Kalyani,Assistant Professor,Dept of IT ,VIEW

Name of the Coordinator: Mr.V.Kondala Rao, Asst.Professor,Dept. of BS&H,VIEW

Number of Participants: 59

Course Objectives:

- Use the most common Microsoft Office programs.
- Create documents for printing and sharing.
- Create and share presentations.

Topics Covered:

Introduction to Computers,

Operating System

MS Word 2010

MS Excel 2010

Presentation Tool MS PowerPoint 2010, Internet

Course Outcomes:

COs	At the end of the course, the student will have the ability to:	POs Mapped	Strength of mapping
CO1	Describe the usage of computers and why computers are essential components in business and society.	PO3	3
CO2	Utilize the Internet Web resources and evaluate on-line e-business system	PO5	3

Assessment Procedure: The assessment of the Addon course is conducted in Multiple Choice Questions through Google Form.

PRINCIPAL
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