



List of Documents related to Alternate Sources of Energy & Energy Conservation Measures

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Policy Document on Energy Conservation Initiatives



VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

**Approved by AICTE & Affiliated to JNT University, Kakinada
Kapujaggarajupeta, VSEZ (POST), Visakhapatnam-530049**



Objectives of the Policy

- To conserve resources within the campus.
- To efficiently use the energy from all resources
- Tap renewable energy resources including solar energy.
- To conduct Energy Audit from time to time.

Infrastructural Initiatives:

Renewable Sources of Energy

- **Solar Power Plant**

The institution believes in self sustainability and energy conservation. We have switched to cleaner sources of energy like solar energy to minimize the usage of electricity in the institution produced from non renewable resources. A 50kW Solar Power Plant has been installed on the rooftop.

- **Biogas Plant**

To reuse the wastage from the canteen and tree litter, two 500 Litres Floating Type Biogas Plant has been installed. The gas produced from the Biogas Plant is used for cooking purpose at the canteen.

Energy Saving and Energy Efficient Equipment

- **Use of LEDs**

To minimize the use of utilization of electricity and using cleaner sources of energy the institution is committed to install energy saving and user friendly alternatives like LED lights, CFLs of 20W and motion sensor based lights.

- The Institution uses Energy star rated appliances and sensor based equipment for the efficient use of power.



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Visakhapatnam-4



Use of Alternate Sources of Energy Solar Power Plant

The Institute has installed a Solar Plant on the rooftop with a capacity of 50kW in an area of 5500 Sq. feet. It produces 50 kW direct current and this could produce a 6200kWh of AC per month. So this power met the electricity demand of college up to certain extent. This energy is used as power backup supply during power cuts from the electricity department. Solar power plant or Solar energy further helps in the reduction of carbon footprints.

Investing in a 50kW system will reduce the power bill but also dramatically increase the profits in the long run. 200 Units per day are generated. Annual savings for our college will be approximately more than one lakh. The Institute has a solar inverter with a rating of 50kVA and the inverter is a Hybrid Solar Inverter having 97% efficiency with maximum DC input of 50kW.



A 50kW Solar Power Plant installed at the Rooftop



Solar Panels installed at the Hostel Mess

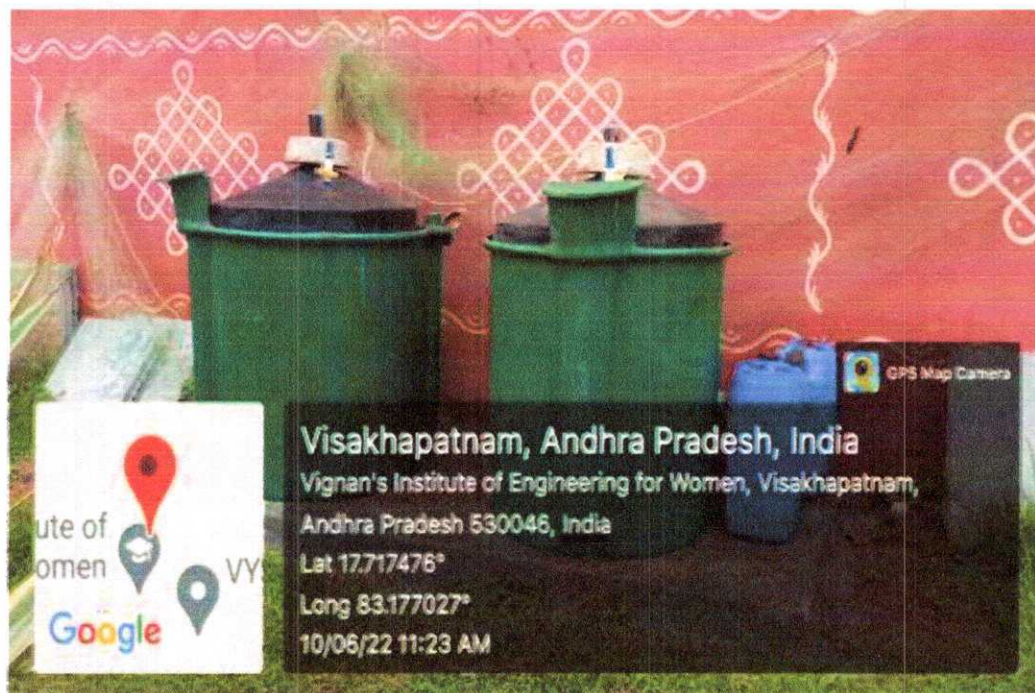


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K.J.Pet, V&EZ (P.O.),
Visakhapatnam-49.



Use of Alternate Sources of Energy Biogas Plant

Biogas is made up of different gases which are produced by the breakdown of organic matter. In our institute, biogas is produced from raw materials like food waste, green waste, etc. It helps in the reduction of carbon footprints as it's a renewable source of energy. The gases produced from this unit is combusted and the output energy developed is used as fuel. This fuel is used for heating purpose such as cooking. In our college, the biogas plants are installed at the canteen which have a capacity of 500 Liters. It is a portable type, Biogas Plant. The food waste generated in the hostel and at the canteen is collected every day and fed into the biogas plant. The produced biogas is utilized for cooking purpose in the canteen which can save the LPG cylinder.



Biogas Plant installed at the Canteen

TECHNICAL SPECIFICATIONS:

Floating type Biogas Plant

MOC: FRP

Capacity: Two 500 Litres

Application: Cooking (Canteen) -Single burner Bio Gas Stove

Installed Year: 2022



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Energy Conservation Measures

Use of LEDs/Power Efficient Equipment

The Institution uses fluorescent tube lights of 36W, LED tube lights of 20W and Ceiling LED lights of 15W. LED lights are environmental friendly and are good alternative to save energy. To reduce power consumption, 20W tube lights are used to replace 36W which are to be discarded. To maintain lux levels of 240-320 in the classrooms, tube lights are used because LED lights are not preferred. A total of 615 LED lights are being used in the institution.



Use of LEDs in Office Room



Use of LEDs in Staff Room

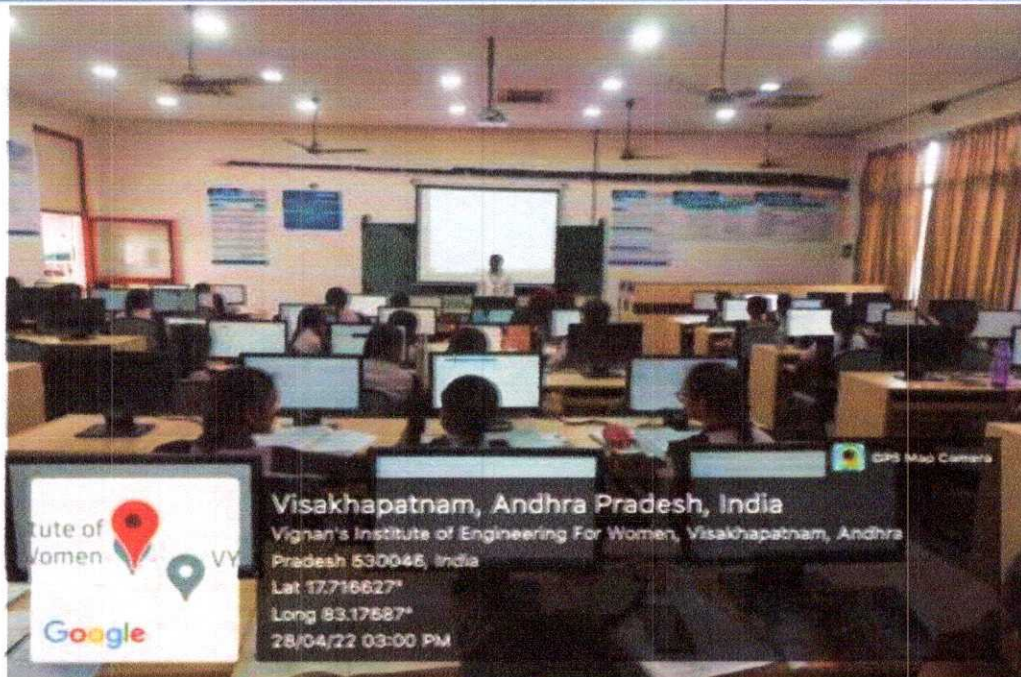


Signature
PRINCIPAL
Vignan's Institute of
Engineering for Women
K.J.Pet, VSEZ (P.O.),
Visakhapatnam-49.

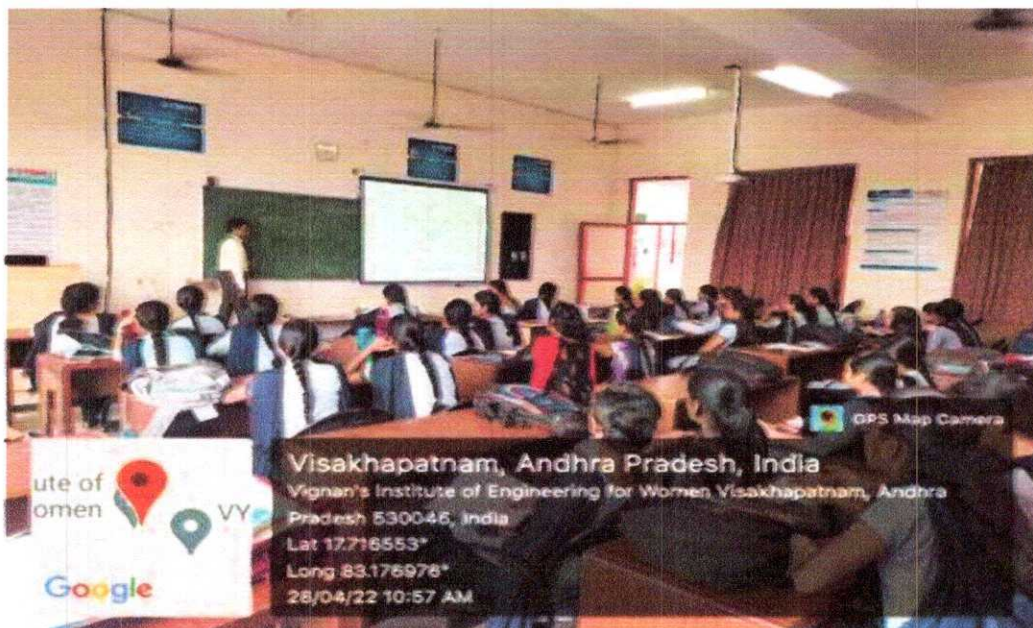


VIGNAN'S INSTITUTE OF ENGINEERING FOR WOMEN

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Use of LEDs in Laboratory



Use of CFLs of 20W in Classroom

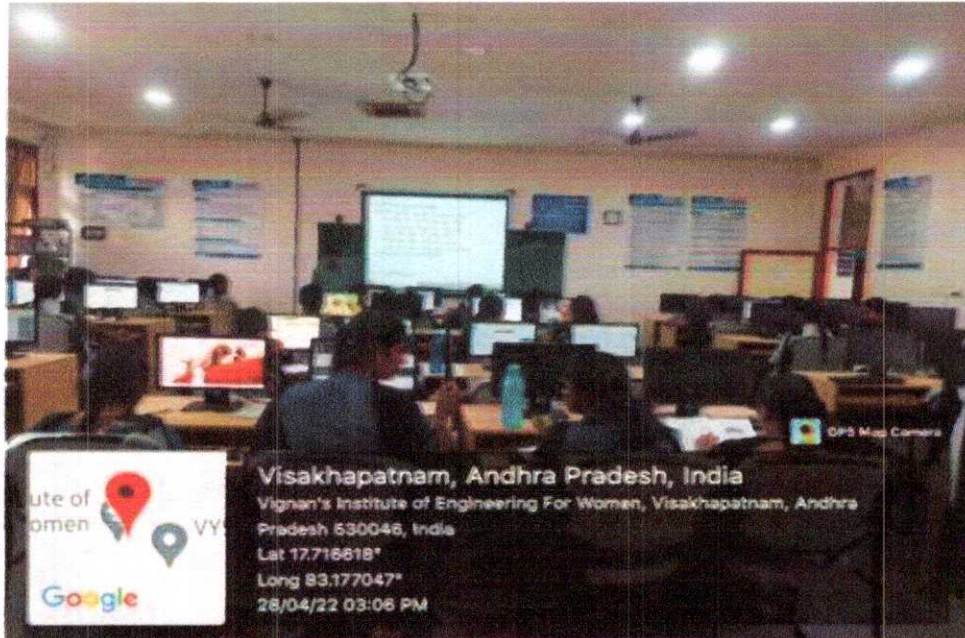


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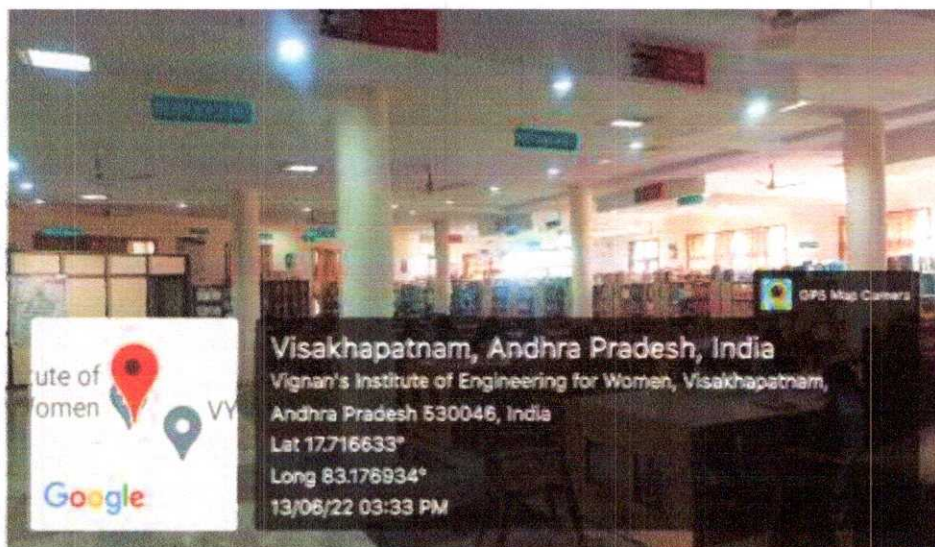


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Use of LEDs in Laboratory



Use of LEDs in Central Library




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Use of LEDs in Corridor



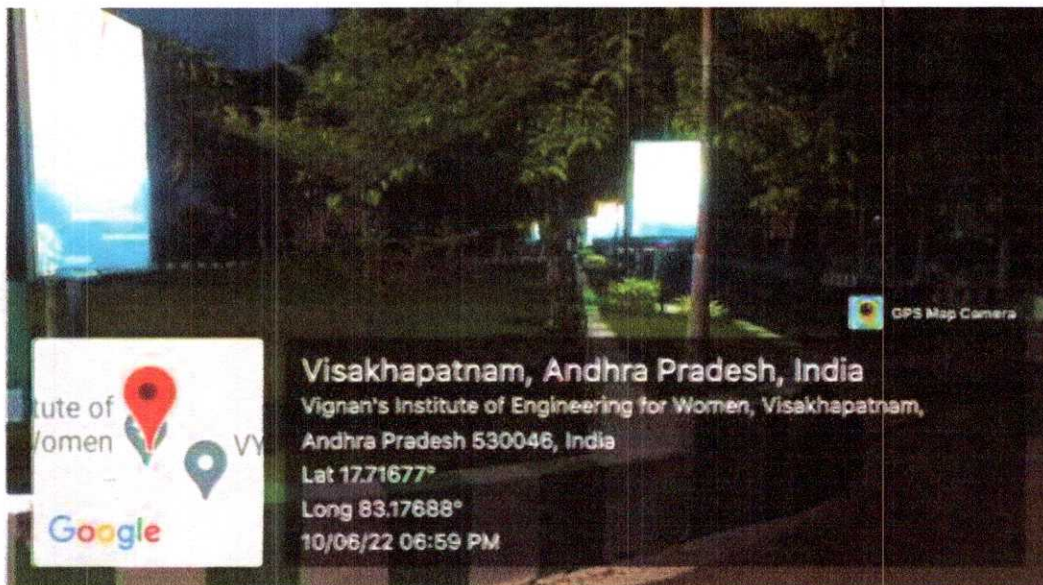
[Signature]
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Visakhapatnam-49



Energy Conservation Measures

Sensor-Based Energy Conservation

Automatic control of lollipop lights is designed to turn on and turn off lollipop lights automatically. If light is 80 percent available, it automatically turn off lollipop lights. But if amount of light is less than 80 percent, it will automatically turn on lollipops lights. One can also adjust it according to its requirement. Light sensor is used to detect intensity of light. A light sensor to sense amount of light available.



Lollipop Lights at the pathway



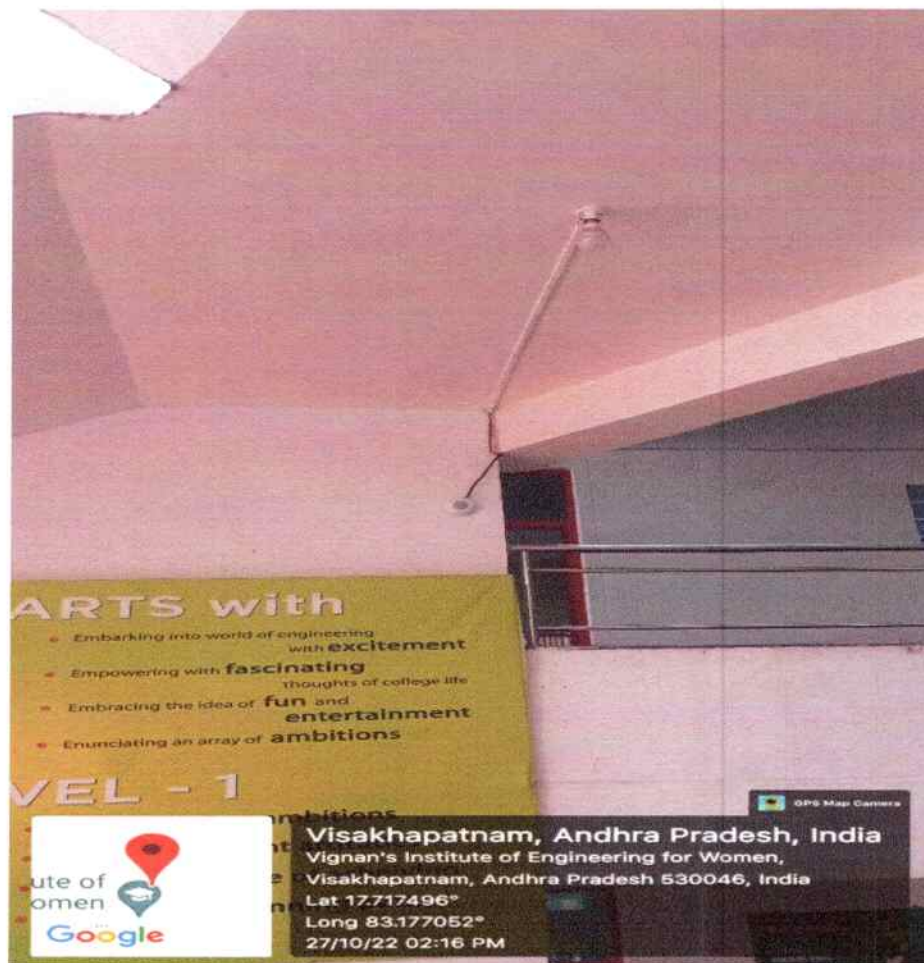
Lollipop Lights at the Entrance



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Energy Conservation Measures Infrared Motion Sensor



Infrared Motion Sensor based Light at the staircase

Three units of Infrared Motion Sensor based lights have been installed at the campus. They use the infrared energy from human as control – signal and switch on the light at once when one enters the detection field. They identify day and night automatically. These lights help in saving the energy and also threaten the intruder into the campus if any.



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Video Link related to Alternate Sources of Energy & Energy Conservation Measures

S.No.	Particulars	Video Link
1.	Alternate Sources of Energy	http://view.edu.in/NAAC/Cr7/7.1.2/Videos/
2.	Energy Conservation Measures	

Tax Invoice
ORIGINAL

Novus Green Energy Systems (P) Ltd-AP 16-17
M 1217, Pine Block-I, J M Towers,
Kam Tree Park, Opp. Nagarjuna University
Guntur, Andhra Pradesh-522503
GSTIN/UIN: 37AADCN077BJ178
State Name: Andhra Pradesh, Code: 37
CIN: U40300AP2000PTC004410
E-Mail: andhyan@novusgreen.in

Buyer
LAVU EDUCATIONAL SOCIETY
Vadlamudi
Guntur, Andhra Pradesh
State Name : Andhra Pradesh, Code : 37
Invoice No.
8
Dated
30-Nov-2017
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.	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
1	Design, Supply, Engineering, Installation, Testing and Commission of 1900KWp Grid Connected VIEW - 50KWp	8541	1 no's	10,25,000.00	no's	10,25,000.00
	Outwards CGST@2.5%			2.50 %		25,62,500.00
	Outwards SGST @2.5%			2.50 %		25,62,500.00
	Total		1 no's			₹ 10,76,25,000.00

Amount Chargeable (in words)
INR Ten Crore Seventy Six Lakh Twenty Five Thousand Only
E & O.E

HSN/SAC	Taxable Value	Central Tax Rate	Central Tax Amount	State Tax Rate	State Tax Amount	Total Tax Amount
8541	10,25,00,000.00	2.5%	25,62,500	2.5%	25,62,500	51,25,000
Total	11,23,14,000.00					

Tax Amount (in words): Fifty One Lakhs Twenty Five Thousand only
Remarks:

Being Design, Supply, engineering, Installation, Testing and Commissioning of 1900KWp grid connected Solar Photovoltaic Power Plant.

Company's PAN : AADCN077BJ
Declaration

We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

Company's Bank Details
Bank Name : UBI-New-CC-534105010040040
A/c No. : 534105010040040
Branch & IFS Code : Begumpet & UBIN0553417
for Novus Green Energy Systems (P) Ltd-AP

This is a Computer Generated Invoice
Novus Green Energy Systems (P) Ltd
ISO 9001:2008 & ISO 14001:2004 Certified

Branch Office : 203A, North - Ex Mall, Sector-9, Rohini, New Delhi - 110085, India. Telephone: +91 11-2755 7100
Hyderabad | Bangalore | Raipur | Vijayawada | Visakhapatnam

www.novusgreen.in


PRINCIPAL -
Women's Institute of
Engineering for Women
K.J. Peta, VSEZ (P.O.),
Visakhapatnam-49.



NOVUS GREEN ENERGY SYSTEMS (P) LTD

Tax Invoice

Novus Green Energy Systems (P) Ltd-AP 17-18

M 1217 Main Block-1 J M Towers,
Rau's Tech Park, 1st Floor, Nagajyoti Industrial
Complex, Andhra Pradesh 527408
GSTIN: 07AALN01778J1ZB
State Name: Andhra Pradesh, Code: 37
PIN: 527408
E-Mail: enquiry@novusgreen.in

Invoice No

05

Delivery Mode

Supplier's Ref

Buyer's Order No

Despatch Document No

Despatched through

Dated

30-Jan-2018

Invoice Terms of Payment

Other Reference(s)

Dated

Delivery Mode Date

Destination

Terms of Delivery

Consignee

LAVU EDUCATIONAL SOCIETY

Vadlamudi

Guntur, Andhra Pradesh

State Name : Andhra Pradesh, Code : 37

Buyer (if other than consignee)

LAVU EDUCATIONAL SOCIETY

Vadlamudi

Guntur, Andhra Pradesh

State Name : Andhra Pradesh, Code : 37

Sl #	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
1	Design, Supply, Engineering, Installation, Testing and Commission of 1900KWp Grid Connected	8541	1 no's	15,18,047.60	no's	1,51,18,047.60
	Out Put CGST@2.5%			2.50	%	3,77,976.19
	Out Put SGST@2.5%			2.50	%	3,77,976.19

continued ...

This is a Computer Generated Invoice



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Vignani's Institute of
Engineering for Women
K.J.Peta, V&EZ (P.O.),
Visakhapatnam-49.

Novus Green Energy Systems (P) Ltd

ISO 9001:2008 & ISO 14001:2004 Certified

Branch Office : 203A, North - Ex Mall, Sector-9, Rohini, New Delhi - 110086, India. Telephone: +91 11-2755 7384
Hyderabad | Bangalore | Raipur | Vijayawada | Visakhapatnam

www.novusgreen.in

Novus Green Energy Systems (P) Ltd-AP 17-18
 M 1217, Pine Block-I, J M Towers,
 Rain Tron Park, Opp. Nagarjuna University
 Guntur, Andhra Pradesh-522503
 GSTIN/UIN: 37AADCNU778J125
 State Name: Andhra Pradesh, Code: 37
 CIN: U40300AP2000PTC064410
 E-Mail: anshuman@novusgreen.in

Consignee
LAVU EDUCATIONAL SOCIETY
 Vadlamudi
 Guntur, Andhra Pradesh
 State Name : Andhra Pradesh, Code : 37

Buyer (if other than consignee)
LAVU EDUCATIONAL SOCIETY
 Vadlamudi
 Guntur, Andhra Pradesh
 State Name : Andhra Pradesh, Code : 37

Invoice No
 85

Delivery Note

Supplier's Ref

Buyer's Order No.

Despatch Document No.

Despatched through

Terms of Delivery

Dated

30-Jan-2018

Mode/Terms of Payment

Other Reference(s)

Dated

Delivery Note Date

Destination

Sl No.	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
	Round Off					0.02
	Total		1 no's			₹ 1,58,75,000.00

Amount Chargeable (in words)

INR One Crore Fifty Eight Lakh Seventy Five Thousand Only

E & O E

HSN/SAC	Taxable Value	Central Tax		State Tax		Total
		Rate	Amount	Rate	Amount	Tax Amount
8541	1,51,19,047.60	2.50%	3,77,976.19	2.50%	3,77,976.19	7,55,952.38
	Total		3,77,976.19		3,77,976.19	7,55,952.38

Tax Amount (in words) : INR Seven Lakh Fifty Five Thousand Nine Hundred Fifty Two and Thirty Eight paise Only

Remarks:

Being Design, Supply, engineering, installation, Testing and Commissioning of 1800KWp grid connected Solar Photovoltaic Power Plant.

Company's PAN : AADCNU778J

Declaration:

We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

for Novus Green Energy Systems

This is a Computer Generated Invoice



Novus Green Energy Systems (P) Ltd

ISO 9001:2008 & ISO 14001:2004 Certified

Branch Office : 203A, North - Ex Mall, Sector-9, Rohini, New Delhi - 110085, India. Telephone : +91 11 2755 7396
 Hyderabad Bangalore Raipur Vijayawada Visakhapatnam

www.novusgreen.in

PRINCIPAL
Vignani's Institute of
Engineering for Women
K.J.Peta, VSEZ (P.O.),
Visakhapatnam-4

GSTIN : 37AUHPC3501B1ZE

TAX INVOICE

Cell 79890 50470
63044 96316

SURYA RENEWABLE ENERGY SYSTEMS

F 4, D.No. 6 148/9, Sidhartha Residency, Gowtham Nagar,
Vepagunta, Visakhapatnam-530 047. A.P. Email : surya.renewableenergy@gmail.comCustomer Name VIGNAN INSTITUTE OF ENGINEERING
Address KARISAGGARASU PETA, VSEZ
VISAKHAPATNAM, A.P. 530049
GSTIN _____Invoice No: AM/AP/22-23/09
Invoice Date: 26-04-2022

P.O. No.:

P.O. Date: 20-04-2022

SL. No.	DESCRIPTION OF GOODS	HSN Code	UNIT RATE	QTY.	AMOUNT
01.	BIO GAS PLANT - 500 lt. portable, FRP. make Complete set	382490 90.	13,000	02	26,000.00

BANK DETAILS : Bank A/c : 918020013580137, Current A/c.
Axis Bank, IFS Code : UTIB0001411, Gopalapatnam Br.
Payment Mode : (Cash / RTGS / NEFT / CHQ.)
Phone pe / Google pay : 9527312152

TRANSPORT : Vehicle No.

Driver Name : Venkat Rao Contact No.:

Way Bill No.:

Date: 26/4/22

INVOICE VALUE	26,000.00
CGST 2.5%	650.00
SGST 2.5%	650.00
IGST	—
GRAND TOTAL	27,800.00

Rupees in words: Twenty Seven thousand three hundred only

Terms & Conditions :

- Goods once sold cannot be taken back as per T&C.
- Interest @ 2% per month. shall be charged in case of late payment.
- Any legal issues Subject to Visakhapatnam Jurisdiction.

Receiver's Signature & Seal



For Surya Renewable Energy Systems

Authorised Signatory

SOLAR POWER

WASTE MANAGEMENT

WATER CONSERVATION

ELECTRIC VEHICLES

PRINCIPAL
Vignan's Institute of
Engineering for Women
K.J. Peta, VSEZ (P.O.)
Visakhapatnam-49

TAX INVOICE

(ORIGINAL FOR RECIPIENT)

INDUSTRIALS
MALAYA ROAD
VISAKHAPATNAM
6009, 6637222, 6663355
37APNPP7147P1ZU
Andhra Pradesh, Code : 37
levizag2006@gmail.com

VIEW DUVVADA
VISAKHAPATNAM
State Name : Andhra Pradesh, Code : 37

Invoice No	Dated
614	18-May-2021
Delivery Note	Mode/Terms of Payment
Supplier's Ref.	30 Days
	Other Reference(s)
Buyer's Order No.	Dated
Despatch Document No.	Delivery Note Date
Despatched through	Destination
Terms of Delivery	

SI No.	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate	per	Disc. %	Amount
1	LED TRIM PANEL LIGHT 15W-SQUARE-MAKE: HAVELLS	94054090	12 %	320 NOS	535.00	NOS		1,71,200.00
2	6M PLATE WITH BOX	85381090	18 %	60 NOS	211.00	NOS		12,660.00
3	4MM BOX WITH PLATE	85381090	18 %	60 NOS	150.00	NOS		9,000.00
4	3M PLATE WITH BOX	85381090	18 %	30 NOS	120.00	NOS		3,600.00
5	6A SWITCH	85365020	18 %	120 NOS	38.00	NOS		4,560.00
6	6A SOCKET	85365020	18 %	120 NOS	78.00	NOS		9,360.00
7	PVC GANG BOX 8WAY	85381010	18 %	180 NOS	80.00	NOS		14,400.00
8	PVC GANG BOX 6 WAY	85381010	18 %	25 NOS	50.00	NOS		1,250.00
9	PVC GANG BOX 4 WAY	85381010	18 %	25 NOS	35.00	NOS		875.00
10	6A SWITCH	85365020	18 %	870 NOS	13.00	NOS		11,310.00
11	6A SOCKET	85365020	18 %	870 NOS	25.00	NOS		21,750.00
12	6A PLUG TOP	85365020	18 %	200 NOS	35.00	NOS		7,000.00
13	1.5X3C COPPER FLEXIBLE CABLE	85446020	18 %	800.000 MTRS	57.00	MTRS		45,600.00
14	10X4C COPPER FLEXIBLE CABLE	85446090	18 %	117.000 MTRS	450.00	MTRS		52,650.00
15	12 Way DB BOARD MCB DB	85371000	18 %	5 NOS	1,372.00	NOS		6,860.00
16	63A 4POLE MCB	85362030	18 %	4 NOS	1,573.00	NOS		6,292.00
17	16A SP MCB	85362030	18 %	30 NOS	150.00	NOS		4,500.00
18	20A SP MCB	85362030	18 %	10 NOS	150.00	NOS		1,500.00
19	FAN ROD	84149000	18 %	30 NOS	120.00	NOS		3,600.00
20	20W LED TUBE LIGHT FITTING	94054090	12 %	100 SET	225.00	SET		22,500.00
21	PVC TAPE NOS	85469090	18 %	100 NOS	8.00	NOS		800.00
								4,11,267.00
								19,581.03
								19,581.03
								11,622.00
								11,622.00
								(-).06
Total								₹ 4,73,673.00

Amount Chargeable (in words)

INR Four Lakh Seventy Three Thousand Six Hundred
Seventy Three Only

Company's PAN

: APNPP7147P

Declaration

We declare that this invoice shows the actual price of the
goods described and that all particulars are true and correct.

Company's Bank Details

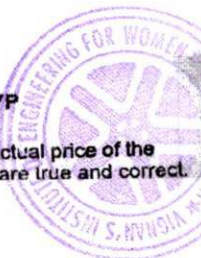
Bank Name : HDFC BANK

A/c No. : 12432560000826

Branch & IFS Code : DABAGARDENS & HDFC0001233

for INDUSTRIAL ELECTRICALS

Authorized Signatory



GSTIN : 37AUHPC3501B1ZE

TAX INVOICE

Cell : 79890 50470

63044 96316

**SURYA RENEWABLE ENERGY SYSTEMS**

F 4, D.No. 6-148/9, Sidhartha Residency, Gowtham Nagar,

Vepagunta, Visakhapatnam-530 047. A.P. Email : surya.renewableenergy@gmail.com

Customer Name Institute of Engineering for Women Vignana College

Address Visakhapatnam, Andhra Pradesh

GSTIN _____

Invoice No. WM/AP/22-23/057

Invoice Date : 02-11-2022

P.O. No. _____

P.O. Date : _____

SL. No.	DESCRIPTION OF GOODS	HSN Code	UNIT RATE	QTY.	AMOUNT
01	intelligent sensors for Automatic Control system based on Sunlight for outdoor lights in garden and walkways inside college	9405	900	3	2700
02	intelligent sensors for Automatic Control system 360° Coverage	9405	1500	4	6000

BANK DETAILS : Bank A/c : 918020013580137, Current A/c.
Axis Bank, IFS Code : UTIB0001411, Gopalapatnam Br.
Payment Mode : (Cash / RTGS / NEFT / CHQ.)
Phone pe / Google pay : 9527312152

INVOICE VALUE	8700.00
CGST 9%	783.00
SGST 9%	783.00
TGST Installation Charge	5,500.00
GRAND TOTAL	15,766

TRANSPORT : Vehicle No. -

Driver Name : -

Contact No. : -

Way Bill No. : -

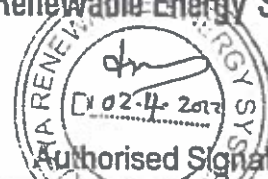
Date : -

Rupees in words : fifteen thousand seven hundred six six Rupees only**Terms & Conditions :**

- Goods once sold cannot be taken back as per T&C.
- Interest @ 2% per month. shall be charged in case of late pay
- Any legal Issues Subject to Visakhapatnam Jurisdiction.

Receiver's Signature & Seal

For Surya Renewable Energy Systems



Authorised Signatory

SOLAR POWER

WASTE MANAGEMENT

WATER CONSERVATION

ELECTRIC VEHICLES

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Engineering for Women
K.J.Pete, V&EZ (P.O.),
Visakhapatnam-49.

