



# VEMU INSTITUTE OF TECHNOLOGY

P.Kothakota, Chittoor District -517112

## CRITERION 7.1.2

### Environmental Consciousness and Sustainability

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## Facilities for alternate sources of energy and energy conservation measures

S. No		Availability (YES/NO)	Description
1	<b>Solar Energy</b>	<b>YES</b>	VEMU Institute of Technology has installed Total 200 kWp Rooftop Solar Power Plant to harness the solar energy on RESCO mode since 2017. Solar plant details along with geo tagged photographs are annexed as <b>Annexure - 1</b>
2	<b>Biogas Plant</b>	<b>NO</b>	
3	<b>Wheeling to the Grid</b>	<b>YES</b>	Excess (surplus) solar energy generated by rooftop solar modules is exported to the grid of electricity distribution utility i.e. AP-SPDCL: Andhra Pradesh Southern Power Distribution Company Ltd, through net metering and saving in electricity bills are availed from electricity distribution utility. (Details of benefits accrued in bills are attached as <b>Annexure - 2</b> )
4	<b>Sensor-Based Energy Conservation</b>	<b>YES</b>	Light based sensor street lights are installed for optimizing energy usages. (Geo-tagged Photographs attached as <b>Annexure - 3</b> )
5	<b>Use of LED Bulbs/ Power Efficient Equipment</b>	<b>YES</b>	VEMU Institute of Technology adopted <ul style="list-style-type: none"> <li>- energy efficient lighting including LED lighting,</li> <li>- energy efficient LED monitors for all computer systems</li> </ul> to promote energy efficiency. (Geo tagged photos and Bills are enclosed as <b>Annexure - 4</b> )

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# **Annexure 1**

# **SOLAR ENERGY**

**Roof Top**  
**Solar (Photo Voltaic) Plant**

## SOLAR ENERGY Roof Top Photo Voltaic Plant

The college is having 200 kWp capacity roof-top solar plant producing 21600 units of electric power generation per month on average. Solar power plant is contributing 100% supply to the demand of the college during day time. We are exporting solar power generation to the grid (APSPDCL) during holidays.

### SALIENT DETAILS OF PLANT

Plant established in	:	2017
Type of Renewable Energy	:	Solar Power
Project cost	:	1.10 CRORES (APPROX.)
Installed Capacity of Plant	:	200 KWp
Total number of modules and make	:	630, SWELECT
Mode of execution	:	RESCO MODEL
Rating of each panel	:	230W, 37V, 8.65A
Configuration of panels	:	18 panels per 1 structure, 1 string for 2 structures
No of roofs used	:	5 ROOFS
Total rooftop solar area	:	2100 SQ. MTRS (APPROX.)
Inverters	:	5 (MAKE – DELTA)
Inverter	:	50KVA-3nos 30KVA-1nos 20KVA-1nos
Inverter configuration	:	Inverter 1 connected to 8 strings with 144 panels Inverter 2 connected to 8 strings with 144 panels Inverter 3 connected to 6 strings with 108 panels Inverter 4 connected to 9 strings with 162 panels Inverter 5 connected to 4 strings with 72 panels
Average monthly generation	:	21,500 Units
Project cost recovery period including O&M	:	25 years

The total connected load is **408.42 kW**.

Energy Consumption by all devices is **22000 Units /Month** and

Renewable source Generated **21600 Units/Month**.

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### Solar energy details for 2018

MONTH & YEAR	Solar Energy Generated (KWH)-1	Energy exported to SPDCL from Solar (KWH) (2)	Energy consumption from Solar(3)=(1)- (2) (KWH)	Energy consumption from SPDCL (KWH) (4)	Total Energy consumption (5)=(3)+(4)( KWH)	Surplus/deficit energy (6)=(1) - (5) (KWH)
Jan-18	19803	10644	9159	9890	19049	754
Feb-18	14005	11398	2607	8118	10725	3280
Mar-18	16083	4992	11091	10250	21341	-5258
Apr-18	24287	6008	18279	12336	30615	-6328
May-18	20525	6822	13703	12844	26547	-6022
Jun-18	23619	8280	15339	9732	25071	-1452
Jul-18	21577	11214	10363	7294	17657	3920
Aug-18	23001	8666	14335	12986	27321	-4320
Sep-18	27209	7244	19965	15630	35595	-8386
Oct-18	24741	10774	13967	13628	27595	-2854
Nov-18	22172	13184	8988	11764	20752	1420
Dec-18	22928	10952	11976	11236	23212	-284
Total	259950	110178	149772	135708	285480	-25530
Average	21663	9182	12481	11309	23790	-2128

### Solar energy details for 2019

MONTH & YEAR	Solar Energy Generated (KWH)-1	Energy exported to SPDCL from Solar (KWH) (2)	Energy consumption from Solar(3)=(1)- (2) (KWH)	Energy consumption from SPDCL (KWH) (4)	Total Energy consumption (5)=(3)+(4)( KWH)	Surplus/deficit energy (6)=(1) - (5) (KWH)
Jan-19	17149	13760	3389	9086	12475	4674
Feb-19	23394	7880	15514	10158	25672	-2278
Mar-19	31805	10180	21625	11604	33229	-1424
Apr-19	21698	9268	12430	13782	26212	-4514
May-19	22490	6828	15662	15646	31308	-8818
Jun-19	26432	8178	18254	16346	34600	-8168
Jul-19	23467	9982	13485	10610	24095	-628
Aug-19	18690	7582	11108	12324	23432	-4742
Sep-19	21218	5430	15788	15028	30816	-9598
Oct-19	21040	7120	13920	15918	29838	-8798
Nov-19	21741	7534	14207	15362	29569	-7828
Dec-19	18945	8208	10737	16344	27081	-8136
Total	268069	101950	166119	162208	328327	-60258
Average	22339	8496	13843	13517	27361	-5022

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### Solar energy details for 2020

MONTH & YEAR	Solar Energy Generated (KWH)-1	Energy exported to SPDCL from Solar (KWH) (2)	Energy consumption from Solar(3)= (1)- (2) (KWH)	Energy consumption from SPDCL (KWH) (4)	Total Energy consumption (5)=(3)+(4) (KWH)	Surplus/deficit energy (6)=(1) - (5) (KWH)
Jan-20	24407	9074	15333	11814	27147	-2740
Feb-20	21489	12284	9205	10266	19471	2018
Mar-20	23416	8992	14424	14214	28638	-5222
Apr-20	23216	11772	11444	13860	25304	-2088
May-20	23316	18042	5274	4818	10092	13224
Jun-20	19742	14806	4936	4036	8972	10770
Jul-20	20609	15020	5589	3650	9239	11370
Aug-20	19454	16702	2752	3492	6244	13210
Sep-20	18494	14798	3696	3368	7064	11430
Oct-20	21558	11350	10208	4588	14796	6762
Nov-20	16277	14670	1607	5220	6827	9450
Dec-20	16800	9234	7566	8576	16142	658
Total	248778	156744	92034	87902	179936	68842
Average	20732	13062	7670	7325	14995	5737

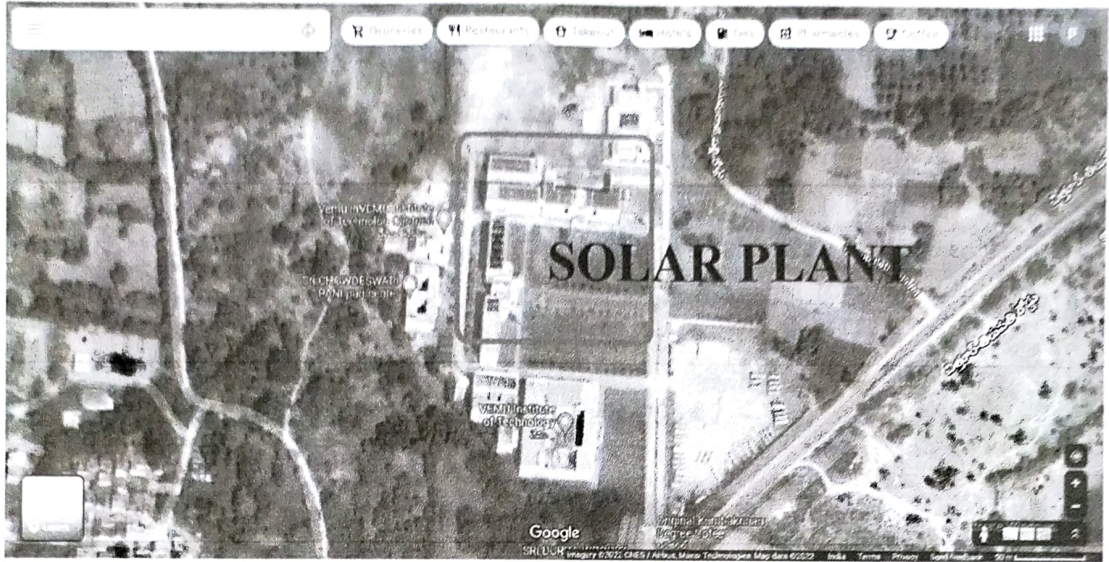
### Consolidated solar energy generation details for the period 2018-2020

YEAR	Solar Energy Generated (KWH)-1	Energy exported to SPDCL from Solar (KWH) (2)	Energy consumption from Solar(3)= (1)- (2) (KWH)	Energy consumption from SPDCL (KWH) (4)	Total Energy consumption (5)=(3)+(4) (KWH)	Surplus/deficit energy (6)=(1) - (5) (KWH)
2018	259950	110178	149772	135708	285480	-25530
2019	268069	101950	166119	162208	328327	-60258
2020	248778	156744	92034	87902	179936	68842
Avg/ year	258932	122957	135975	128606	264581	-5649
Avg/ month	21578	10246	11331	10717	22048	-471

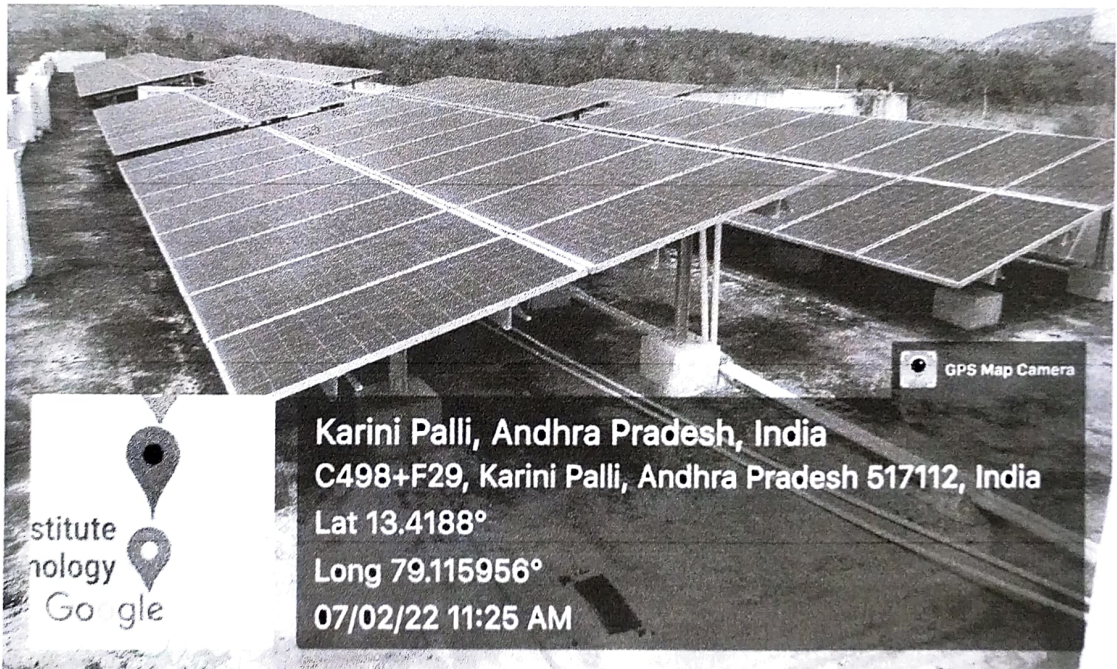
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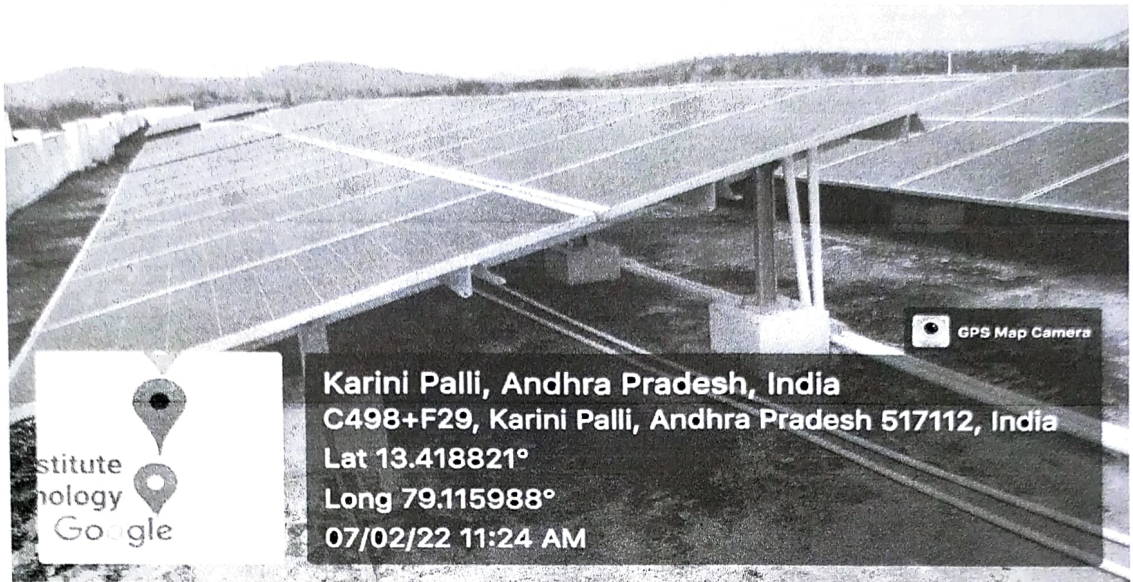


**Roof top Solar Plant**

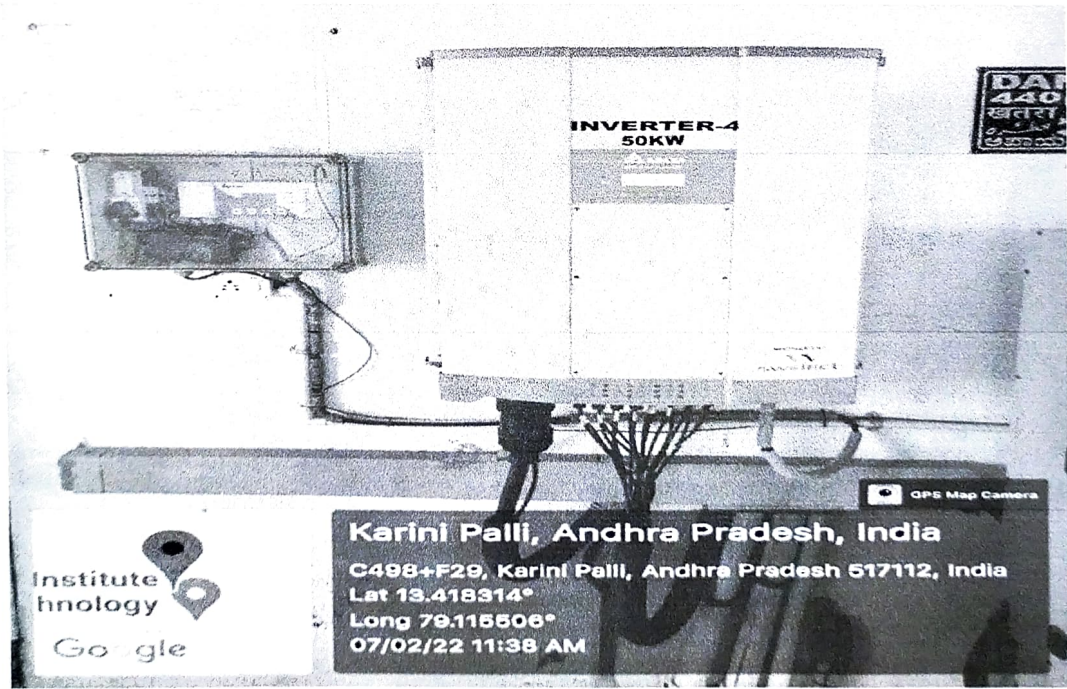


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**Karini Palli, Andhra Pradesh, India**  
C498+F29, Karini Palli, Andhra Pradesh 517112, India  
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Long 79.115988°  
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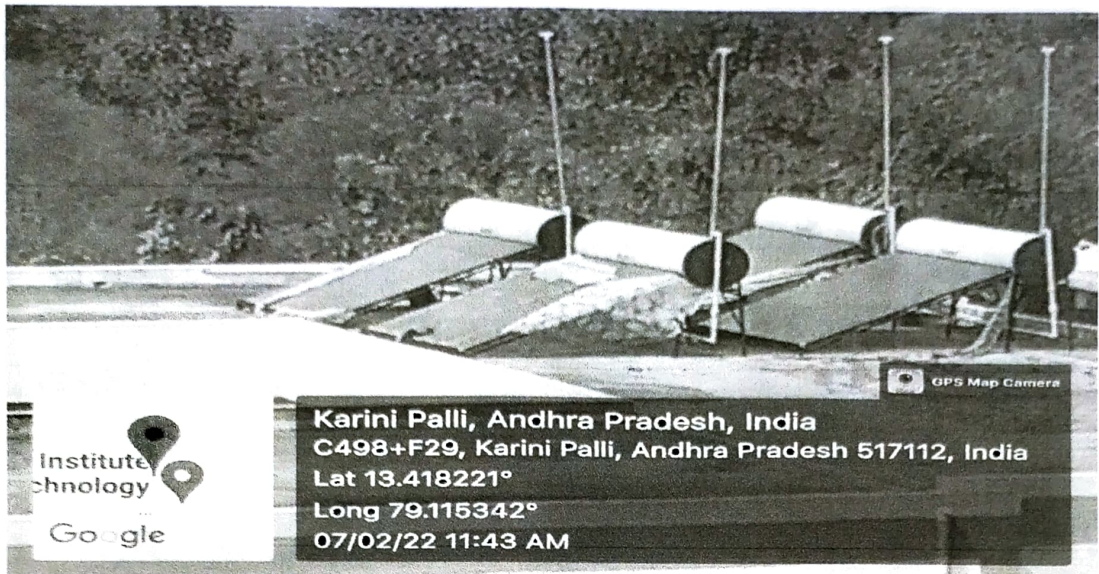


**Karini Palli, Andhra Pradesh, India**  
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ఆంధ్ర ప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

S.NO. 1996 Date: 25-02-2021 Rs.100/-

SOLD TO: V.Lakshmanan S/o P.Venkatachalam

For Whom: Swelect Energy Systems Limited, Andrapradesh

CN 702466  
M. Krishna Kumari  
M.KRISHNA KUMARI  
LICENCED STAMP VENDOR  
L.No:10-22-033/2012, R.L.No:10-22-013/2021  
Kola Street, TIRUPATI.  
Cell: 9885691327

#### MEMORANDUM OF UNDERSTANDING

This binding memorandum of understanding ("MOU") is executed on this 1<sup>st</sup> day of March 2021 ("Execution Date") at Chennai by and between:

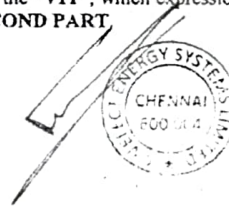
1. SWELECT ENERGY SYSTEMS LIMITED, a public limited company incorporated under the laws of India and having its registered office at SWELECT House, No.5, Sir P.S. Sivasamy Salai, Mylapore, Chennai – 600 004, represented by its authorised representative, Mr. V. C. Raghunath, Whole Time Director (herein after referred to as the "Swelect", which expression shall include its successors, executors and permitted assigns) of FIRST PART;

AND

2. VEMU INSTITUTE OF TECHNOLOGY, having its registered office at P. Kothakota Post, near Pakala, Chittoor, Andhra Pradesh 517112, represented by its authorised representative M. K. Chandrasekhar Naidu, Chairman, (herein after referred to as the "VIT", which expression shall include its successors, executors and permitted assigns) of SECOND PART.



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Swelect and VIT shall be collectively referred to as "Parties" and individually as "Party".

**WHEREAS:**

- A. Swelect is a public limited company incorporated in India and engaged in the business of design, development and manufacture of solar power converter units, assembly of SPV modules and implementation of medium to large scale Solar Power projects.
- B. VIT is one of a premier private institute for professional education in the state of Andhra Pradesh
- C. The Parties had entered into a Power Purchase Agreement dated July 2017 ("PPA") wherein Swelect had agreed to install and operate a grid connected solar rooftop photovoltaic power plant of 200 KWp capacity along with metering systems ("Power Plant") at the rooftop of VIT buildings VIT and supply the entire solar power of the Power Plant to VIT. In turn VIT agreed to purchase the entire solar power from the Power Plant on a take or pay basis.
- D. Swelect is currently the Owner of the Power Plant and based on mutual discussions and negotiations between the Parties, VIT is desirous of purchasing the Power Plant from Swelect and Swelect has agreed to sell the same to VIT, subject to the terms and conditions set forth under this MOU. The Parties have further agreed that upon the purchase of the Power Plant by VIT, Swelect will provide the Maintenance services, guidance to the said plant service for 16 (Sixteen) years from the Execution Date. The cost of the maintenance services charges will be paid by the VIT from time to time within a week days' time from the service attended date. In the event of critical equipment failures/damage, Swelect will coordinate with VIT to rectify / replace the damaged equipment(s). VIT will bear the cost of replacement of spares / critical equipment and shall pay the associated cost 100% in advance to Swelect to undertake the replacement work. To this effect Swelect will undertake the annual maintenance service of the Power Plant ("AM Services") and the Parties will simultaneous to the execution of this MOU execute an Annual Maintenance Contract ("AMC") governing the terms of such AM Services to be provided by Swelect to VIT
- E. Therefore, the Parties have mutually agreed to execute this MOU to detail the terms and conditions with respect to the sale and purchase of the Power Plant.
- F. NOW THEREFORE IN CONSIDERATION OF THE MUTUAL PROMISES AND CONDITIONS SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

**1. DEFINITIONS:**

In this MOU (including the recitals), except as otherwise provided, capitalised terms shall have the meaning assigned to them herein below:

- 1.1. "1<sup>st</sup> Tranche Consideration Amount" shall mean INR 75,00,000/- (Indian Rupees Seventy-Five Lakhs Only);
- 1.2. "2<sup>nd</sup> Tranche Consideration Amount" shall mean INR 35,00,000/- (Indian Rupees Thirty-Five Lakhs Only);
- 1.3. "Bill of Materials" shall mean the list of panels, machinery, Equipments and quantities of such panels, machinery, other Equipments, which collectively constitute the Power Plant;
- 1.4. "Closing Date" shall mean the 60<sup>th</sup> day from the Execution Date or such other date as may be extended at the sole discretion of Swelect;
- 1.5. "Designated Bank Account" shall mean the following bank account of Swelect:

Name of the Account Holder:	SWELECT ENERGY SYSTEMS LIMITED
Bank & Branch:	STATE BANK OF INDIA, LUZ BRANCH
Account No:	54006210422
IFSC Code:	SBIN0040236

*K. Srinivas*

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PRINCIPAL

Vemu Institute of Technology  
P. Kothakota

1.6. "Equipment" shall mean the equipment detailed in Schedule 1 of this MOU that are as of the Execution Date.

1.7. "Total Consideration Amount" shall mean the aggregate of the 1st Tranche Consideration Amount and 2nd Tranche Consideration i.e. INR 1,10,00,000/- (Indian Rupees One Crore and Ten Lakhs only). This cost is inclusive of unpaid and outstanding power bills with the VIT. Further both the parties agreed that the amount of Rs. 1,10,00,000 (Indian Rupees Once Crores and Ten Lakhs only) is the final settlement amount and Swelect is accepting the same with full satisfaction subject to receipt of the same.

## 2. SALE OF POWER PLANT

2.1. Swelect does hereby agrees to transfer and sell to VIT, the Power Plant including all the ownership right, warranty, title and interest in the said Power Plant, free from all encumbrances, on the Closing Date, for the Total Consideration Amount ("Sale Transaction").

## 3. SCOPE AND OBLIGATIONS OF PARTIES

3.1. On the Execution Date, the Parties shall undertake the following actions:

3.1.1. VIT shall transfer the 1<sup>st</sup> Tranche Consideration Amount of INR 75,00,000/- to the Designated Bank Account;

3.1.2. VIT shall deliver the post-dated cheque that shall be dated as of the Closing Date ("PDC") with respect to the 2<sup>nd</sup> Tranche Consideration Amount of INR 35,00,000/-; and

3.1.3. The Parties agree and undertake to ensure the finalisation and execution of the AMC on the Execution Date, which shall be effective from the Closing Date.

3.2. Subject to the completion of the actions set out in Clause 3.1, on the Closing Date, the Parties shall undertake the following:

3.2.1. VIT shall undertake such actions as may be required to ensure that the PDC shall be realized by Swelect on the Closing Date;

3.2. VIT:

3.2.2. Upon the realization of the PDC, it shall be deemed that the ownership, warranty, title to the Power Plant is transferred to VIT and Swelect shall transfer physical documents, operational devices if any with them related to Power Plant by physical delivery to VIT and VIT shall acknowledge the receipt thereof to Swelect by executing a memorandum of delivery and acceptance of the same.

3.2.3. Swelect shall handover the Bill of Materials to VIT.

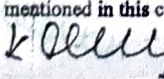

3.2.4. Swelect shall after retaining a copy, handover the originals of all the manufactures' warranty certificates of the Equipment to VIT.

3.2.5. The Parties agree that the PPA shall deem to be terminated with effect from the Closing Date.

3.2.6. Swelect agrees and undertakes to commence and provide the AM Services per the terms of the AMC.

3.3. All actions set out in Clause 3.2 relating to the Sale Transaction shall be deemed to occur simultaneously and no such action shall be consummated unless all such actions are consummated. The Parties shall take all measures and do all acts, deeds, matters and things as may be required to ensure that all the actions set out in Clause 3.2 are initiated and completed on the Closing Date.

3.4. It is agreed between the Parties that the Total Consideration Amount of Rs. 1,10,00,000 /- (Indian Rupees One Crore and Ten Lakhs only) is the full and final settlement amount payable by VIT to Swelect towards (a) towards energy sale revenue for the period from December 2017 to February 2021 and (b) towards the purchase of the Power Plant by VIT. Swelect agrees that after the Closing Date, Swelect shall not have any claims against VIT towards the dues mentioned in this clause.


3.5. The Parties agree that if Swelect is unable to realize the PDC as of the Closing Date, Swelect (a) may extend the Closing Date to such further period and such extended Closing Date shall be deemed to be the Closing Date for all purposes hereunder. However, VIT shall be liable to pay interest at the rate of 18% p.a. on the 2<sup>nd</sup> Tranche Consideration Amount, from the Execution Date until the date of actual payment. (b) Further, VIT shall also be liable to pay for the energy delivered from the execution date until the date of actual payment.

#### 4. COVENANTS AND UNDERTAKING

4.1. Swelect shall ensure that all information relating to the annual maintenance services are provided to VIT.

4.2. Post the Closing Date, VIT shall obtain insurance for the Power Plant at its cost.

#### 5. REPRESENTATIONS AND WARRANTIES

5.1. Each Party represents and warrants that it:

5.1.1. is validly existing and in good standing under the laws applicable to it;

5.1.2. is duly authorized to enter into and perform the covenants under this MOU and is not barred by any law or contractual obligations to any third party from entering into and/or fulfilling its obligations hereunder;

5.1.3. holds all licences, approvals and permits required by law to perform its obligations and/or complete the Sale Transaction set out under this MOU and any contract; and

5.1.4. as of the Execution Date, it is not under any liability, restriction or prohibition, either pursuant to any agreement or pursuant to any statute, law, order, rule or regulation of any governmental authority, in respect of its right to enter into this MOU and to fully perform its terms.

5.2. VIT represents and warrants that:

5.2.1. it shall undertake all such actions as may be necessary for it to complete the Sale Transaction and that it shall procure all necessary licenses and permits as may be required under applicable law for it to own the Power Plant;

5.2.2. it agrees to be bound by such terms as may be imposed by third party quasi-governmental and governmental authorities with respect to the ownership and usage of the Power Plant.

5.3. Swelect agrees and undertakes that:

5.3.1. it has the right to sell and transfer the legal ownership rights and title to the Power Plant to VIT; and

5.3.2. it has procured all necessary approvals and consents to complete the Sale Transaction set out under this MOU.

#### 6. TERM AND TERMINATION

6.1. This MOU shall be effective from the Execution Date and shall continue to be in force until Closing Date.

#### 7. GOVERNING LAW AND DISPUTE RESOLUTION

7.1. This MOU shall be governed by and construed in accordance with the laws in India and the parties irrevocably agree that any dispute arising out of or in connection with this MOU will be subject to and within the jurisdiction of the courts in Chennai, Tamil Nadu.

*Kalavathi*  
KALAVATHI

*Navendu*  
VCT ENERGY SYSTEMS LIMITED  
CHENNAI  
600 004

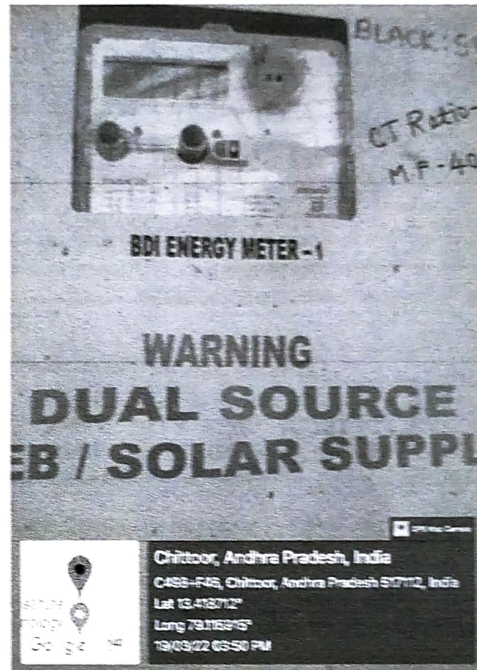
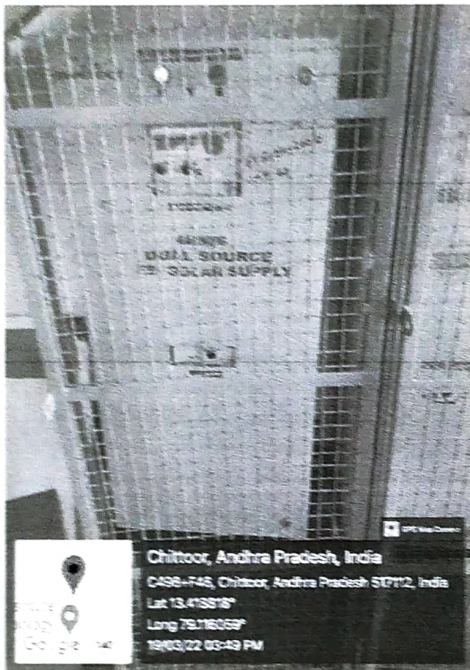
## **Annexure 2**

# **Wheeling to the GRID**

### Wheeling to the GRID

The solar power plant of VEMU Institute of Technology is connected with GRID and the excess power generated is exported to the Grid from time to time.

Excess (surplus) solar energy generated by rooftop solar modules are exported to the grid of electricity distribution utility i.e. AP-SPDCL: Andhra Pradesh Southern Power Distribution Company Ltd through net metering and direct saving in electricity bills are availed from electricity distribution utility on monthly basis. The energy exported and imported is metered through bi-directional meter.



For the excess energy exported to Grid through wheeling is being paid by Andhra Pradesh Southern Power Distribution Company Ltd. (SPDCL) as given below:

S.No	Billing period	Number of units exported to grid	Amount paid by SPDCL to VEMU
1	21.10.2018 to 28.2.2019	14048	82,883
2	01.03.2019 to 01.6.2020	26012	97,311
3	01.07.2020 to 01.12.2021	94404	3,53,165

Details of benefits accrued in bills are attached as the proofs for the above, issued by SPDCL for the units of energy exported to SPDCL are enclosed herewith.

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 Vemu Institute of Technology  
 P. Kothakota



**SOUTHERN POWER DISTRIBUTION COMPANY OF A.P. LTD.,  
OPERATION CIRCLE :: TIRUPATI**

From  
The Superintending Engineer,  
Operation:: APSPDCL,  
TIRUPATI.

To  
HT SC.No. TPT2007,  
M/s VEMU INSTUTITE OF TECHNOLOGY  
Karinapalle (V), Puthalapattu(M),  
CHITTOOR (Dist)

Lr.No.SE/O/ATPT/SAO/JAO-HT/D.NO. 1680/2022, Dt. 11.03.2022.

Sir,

**Sub:- APSPDCL -Operation Circle - Tirupati HT Service - TPT2007 of  
M/s Vemu Instutite Of Technology,Karinapalle(V),Puthalapattu(M),  
Chittoor Dist - Solar Net Metering- Excess of export energy-claim  
Settlement for 21.10.2018 to 28.02.2019 - Intimation - Reg.**

**Ref :** 1) Lr.No.DEE/R/TPT/AE-TECH/D.No.4616/17 Dt.15.11.2017.  
2) Memo.No.CGM/P&MM/GM-IT/F.Solar/D.No.426/15 Dt.24.09.2015  
3) Memo.No.CGM/E&C/AO-BS/JAO-I/F.SPEC/D.No.215/15,Dt:13.07.15.  
4) Memo.No.CGM(R&IA)/GM@/AO/AAO-HT/eO.F.197595/D.No.50/2020  
Dt.18.01.2020

**-000-**

It is to inform that, according to the above references, the Solar Net metering and claim for excess of export energy units to against HT service TPT2007 of, M/s. Vemu Instutite Of Technology,Karinapalle(V), Puthalapattu(M),Chittoor Dist from 21.10.2018 to 28.02.2019 has been effected and adjusted. The details are given below.

1. From 21.10.2018 to 28.02.2019 excess of export energy to the tune of Rs.82,883 (Rupees Eighty two thousand eight hundred and eighty three only) for 14048 Units has been adjust to future CC bills against HT service TPT2007.
2. Hence, it is to inform that solar net metering excess of export units has been settled and amounts claimed from 21.10.2018 to 28.02.2019.
3. This is for information.

Sd./- R. OBULAKONDA REDDY  
SUPERINTENDING ENGINEER  
OPERATION CIRCLE :TIRUPATI

**Copy to:**

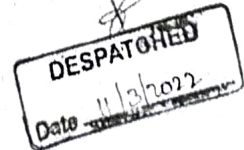
The Deputy. Executive Engineer /Operation/Pakala

The Executive Engineer /Rural/Tirupati .

//FORWARDED:: BY ORDER//

JR.ACCOUNTS OFFICER/HT

*de*  
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**SOLAR POWER NET METERED & Claims to Consumer Statement**  
 ( Of 2018- 2019 From Oct/2017 billed in Nov/2017 to Feb/2019 billed in Mar/2019)

Service No. TPT2007		Name & Address						Branch code IFSC Code	
		M/s VEMU INSTITUTE OF TECHNOLOGY, Karinapalle (V), Puthalapattu (M), Chittoor (Dist)							
S. No.	Month	Import Units (APSPDCL)			Export Units (KWH) Solar			Claim for Net Export Units (KWH) (8-5)	Net Amount (Rs.)
		Opening Reading (KVAH)	Closing Reading (KVAH)	Import Consumption	Opening Reading (KWH)	Closing Reading (KWH)	Export (Solar) Consumption		
1	2	3	4	5	6	7	8	9	
			MF :-	2		MF :-	2		10 (5.90 from 01.04.18 to 01.01.2019 (Rs 3.741 from 02.01.2019 to 25 Years pooled cost ACs notified by APERC-2019-2020)
1	Nov-17	244	3145	5802	716	363	494	-5308	0
2	Dec-17	3145	10060	13830	363	1109	1492	-12338	0
3	Jan-18	10060	15005	9890	1109	6431	10644	754	4449
4	Feb-18	15005	19064	8118	6431	12130	11398	3280	19352
5	Mar-18	19064	24189	10250	12130	14626	4992	-5258	0
6	Apr-18	24189	30357	12336	14626	17630	6008	-6328	0
7	May-18	30357	36779	12844	17630	21041	6823	-6022	0
8	Jun-18	36779	41645	9732	21041	25181	8280	-1452	0
9	Jul-18	41645	45292	7294	25181	30788	11214	3920	23128
10	Aug-18	45292	51785	12986	30788	35121	8666	-4320	0
11	Sep-18	51785	59600	15630	35121	38743	7244	-8386	0
12	Oct-18	59600	66414	13628	38743	44130	10774	-2854	0
13	Nov-18	66414	72296	11764	44130	50722	13184	1420	8378
14	Dec-18	72296	77914	11236	50722	56198	10952	-284	0
15	Jan-19	77914	82457	9086	56198	63078	13760	4674	27577
16	Feb-19	82457	87536	10158	63078	67018	7880	-2278	0
17	Mar-19	87536	93338	11604	67018	72108	10180	-1424	0
<b>Total</b>				<b>186188</b>			<b>143984</b>	<b>-42204</b>	<b>82883</b>

5.90

7.741

Sr. Asst./Billing

JAO/HT

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*Navaneel*  
**PRINCIPAL**  
 Vemu Institute of Technology  
 P. Kothakota



**SOUTHERN POWER DISTRIBUTION COMPANY OF A.P. LTD.,  
OPERATION CIRCLE :: TIRUPATI**

From  
The Superintending Engineer,  
Operation :: APSPDCL,  
TIRUPATI

To  
M/s VEMU INSTITUTE OF TECHNOLOGY  
Karinapalle(V),  
Puthalapattu (M), (TPT2007)  
CHITTOOR (DIST)

**Lr.No.SE/O/ATP/SAO/JAO-HT/D.NO.4329/2020, Dt.10.09.2020.**

Sir,

**Sub:- APSPDCL -Operation Circle - Tirupati HT Service - TPT2007 of  
M/s. Vemu Institute of Technology, Karinapalle (V), Puthalapattu (M),  
Chittoor Dist- Solar net metering- excess of export energy-claim  
Settlement for 01.04.2020 to 01.06.2020 - intimation - Reg.**

**Ref :** 1) Lr.No.DEE/R/TPT/AE-Tech/D.No.4616/17, Dt.15.11.2017.  
2) Memo.No.CGM/P&MM/GM-IT/F.Solar/D.No.426/15 Dt.24.09.2015  
3) Memo.No.CGM/E&C/AO-BS/JAO-1/F.SPEC/D.No.215/15,Dt:13.07.15.  
4) Memo.No.CGM(R&IA)/GM@/AO/AAO-HT/eO.F.197595/D.No.50/2020  
Dt.18.01.2020.

**-000-**

According to the above references, it is to inform that Solar Net metering and claim for excess of export energy units to your HT service **TPT2007** of, **M/s Vemu Institute of Technology, Karinapalle (V), Puthalapattu (M), Chittoor Dist** from **01.04.2019 to 01.06.2020** has been effected and claimed. The details are given below.

1. From **01.04.2019 to 01.06.2020** excess of export energy **26012** Units @ has been claimed of **Rs.97,311/-** (26012 units @ Rs.3.741ps has been claimed from 01.04.2019 to 01.06.2020) on adjustment to future CC bills against your HT service **TPT2007** based on your request.
2. Hence, it is to inform that solar net metering excess of export units has been settled and amounts claimed from **01.04.19 to 01.06.2020**.
3. This is for information

Sd./- D.V.CHALAPATHY  
SUPERINTENDING ENGINEER  
OPERATION CIRCLE :TIRUPATI.

**Copy to:**

The Deputy. Executive Engineer /OSD/Pakala.

The Executive Engineer /Rurals/Tirupati.

**// Forwarded By Order //**

*[Signature]*  
Junior Accounts Officer / HT  
Circle Office :: Tirupati

*Naravath*

PRINCIPAL

Vemu Institute of Technology  
P. Kothakota

**SOLAR POWER NET METERED & Claims to Consumer Statement**  
( 2t Qtr. Of 2019-2020 From April 2019 to JUN -2020)

TPT 2007		Section	Name & Address		Branch code IFSC Code	
		M/S VEMU INSTITUTE OF TECHNOLOGY, Karinapalle(V), Puthalapattu(M), Chittoor(Dist)				
S.No.	Month	Import Units (KVAH)	Export Units (KWH)	Claim for Net Export Units (KWH)	Net Amount (Rs.)	
1	2	3	4	5 (3-4)	6 (5*6) (Rs 3.741 pool cost ACs notified by APERC-2019-2020)	
	Apr-19	13782	9268	0	0	
	May-19	15646	6828	0	0	
	Jun-19	16346	8178	0	0	
	Jul-19	10610	9982	0	0	
	Aug-19	12324	7582	0	0	
	Sep-19	15028	5430	0	0	
	Oct-19	15918	7120	0	0	
	Nov-19	15362	7534	0	0	
	Dec-19	16344	8208	0	0	
	Jan-20	11814	9074	0	0	
	Feb-20	10266	12284	2018	7549	
	Mar-20	14214	8992	0	0	
	Apr-20	13860	11772	0	0	
	May-20	4818	18042	13224	49471	
	Jun-20	4036	14806	10770	40001	
<b>TOTAL</b>		<b>190368</b>	<b>145100</b>	<b>26012</b>	<b>97311</b>	

*[Signature]*  
Jr.Asst./Billing

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JAO/HT

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SAO 2/9/20

*[Signature]*  
SE/O/TPT

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**PRINCIPAL**  
Vemu-Institute of Technology  
P. Kothakota



SOUTHERN POWER DISTRIBUTION COMPANY OF A.P. LTD.,  
OPERATION CIRCLE :: TIRUPATI

From  
The Superintending Engineer,  
Operation:: APSPDCL,  
TIRUPATI

To  
TPT 2007  
M/s VEMU INSTITUTE OF TECHNOLOGY  
Karinapalle (V),  
Puthalapattu(M),  
CHITTOOR (Dist)

Lr.No.SE/O/TPT/SAO/JAO/HT/D.NO. 745 /2022, Dt. 2 .02.2022.

Sir,

Sub:- APSPDCL -Operation Circle - Tirupati HT Service - TPT2007 of  
M/s Vemu Institute Of Technology, Karinapalle(V), Puthalapattu(M),  
Chittoor Dist - Solar Net Metering- Excess of export energy-claim  
Settlement for 01.07.2020 to 01.12.2021 - Intimation - Reg.

Ref: 1) Lr.No.DEE/R/TPT/AE-TECH/D.No.4616/17 Dt.15.11.2017.  
2) Memo.No.CGM/P&MM/GM-IT/F.Solar/D.No.426/15 Dt.24.09.2015  
3) Memo.No.CGM/E&C/AO-BS/JAO-1/F.SPEC/D.No.215/15, Dt:13.07.15.  
4) Memo.No.CGM(R&IA)/GM@/AO/AAO-HT/eO.F.197595/D.No.50/2020  
Dt.18.01.2020

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According to the above references, it is to inform that Solar Net  
metering and claim for excess of export energy units to your HT service  
TPT2007 of, M/s Vemu Institute Of Technology, Karinapalle(V),  
Puthalapattu(M), Chittoor Dist from 01.07.2020 to 01.12.2021 has been  
effected and claimed. The details are given below.

1. From 01.07.2020 to 01.12.2021 excess of export energy 94404 Units  
has been claimed of Rs. 3,53,165/- by adjustment to future CC bills  
against your HT service TPT 2007 based on your request.
2. Hence, it is to inform that solar net metering excess of export units has  
been settled and amounts claimed from 01.07.2020 to 01.12.2021.
3. This is for information.

R. Obula Konda Reddy  
SUPERINTENDING ENGINEER  
OPERATION CIRCLE :: TIRUPATI

**Copy to:**

The Deputy. Executive Engineer /Operation/Pakala.

The Executive Engineer /Rurals/Tirupati.

//FORWARDED:: BY ORDER//

JAO/HT

PRINCIPAL

Vemu Institute of Technology

P. Kothakota

**SOLAR POWER NET METERED & Claims to Consumer Statement**  
(Of 2020- 2021 From JULY -2020 to DEC -2021)

Service No. TPT2007		Name & Address						Branch code IFSC Code	
		M/s VEMU INSTITUTE OF TECHNOLOGY, Karinapalle (V), Puthalapattu (M), Chittoor (Dist)							
S. No.	Month	Import Units (APSPDCL)			Export Units (KWH) Solar			Claim for Net Export Units (KWH)	Net Amount (Rs.)
		Opening Reading (KVAH)	Closing Reading (KVAH)	Import Consumption	Opening Reading (KWH)	Closing Reading (KWH)	Export (Solar) Consumption		
1	2	3	4	5 (M.F: 2)	6	7	8	9 (8-5)	10 (5.90 from 01.04.18 to 01.01.2019 (Rs 3.741 from 02.01.2019 to 25 Years pooled cost ACs notified by APERC-2019-2020)
1	Jul-20	188522	190347	3650	144658	152168	15020	11370	42535
2	Aug-20	190347	192093	3492	152168	160519	16702	13210	49419
3	Sep-20	192093	193777	3368	160519	167918	14798	11430	42760
4	Oct-20	193777	196071	4588	167918	173593	11350	6762	25297
5	Nov-20	196071	198681	5220	173593	180928	14670	9450	35352
6	Dec-20	198681	202969	8576	180928	185545	9234	658	2462
7	Jan-21	202969	205839	5740	185545	190853	10616	4876	18241
8	Feb-21	205839	210514	9350	190853	195747	9788	438	1639
9	Mar-21	210514	217215	13402	195747	200203	8912	0	0
10	Apr-21	217215	226168	17906	200203	204058	7710	0	0
11	May-21	226168	234846	17356	204058	207384	6652	0	0
12	Jun-21	234846	237757	5822	207384	217216	19664	13842	51783
13	Jul-21	237757	239687	3860	217216	226111	17790	13930	52112
14	Aug-21	239687	242628	5882	226111	233271	14320	8438	31567
15	Sep-21	242628	252141	19026	233271	236444	6346	0	0
16	Oct-21	252141	260885	17488	236444	240336	7784	0	0
17	Nov-21	260885	267779	13788	240336	244526	8380	0	0
18	Dec-21	267779	277309	19060	244526	246066	3080	0	0
<b>Total</b>				177574			202816	94404	353165

Sr.Asst./Billing

JAO/HT

Sr. Asst. / Billing  
25/11/22

SE/O/TPT

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Vemu Institute of Technology  
Kothakota

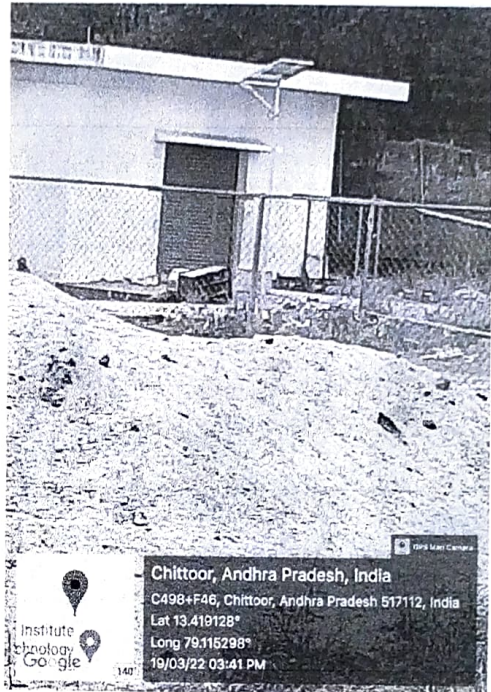
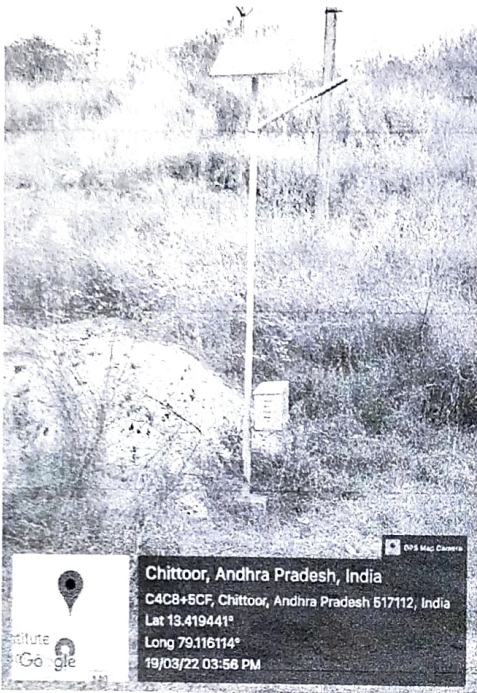
## **Annexure 3**

# **Sensor Based Energy Conservation**

### Sensor Based Energy Conservation

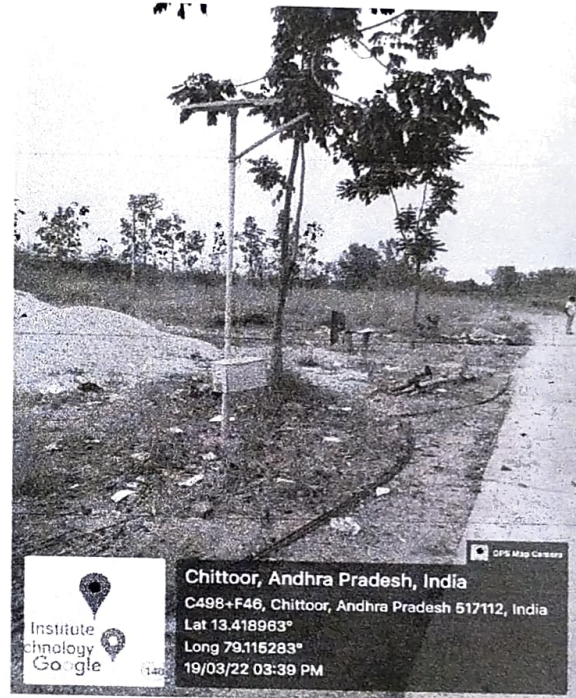
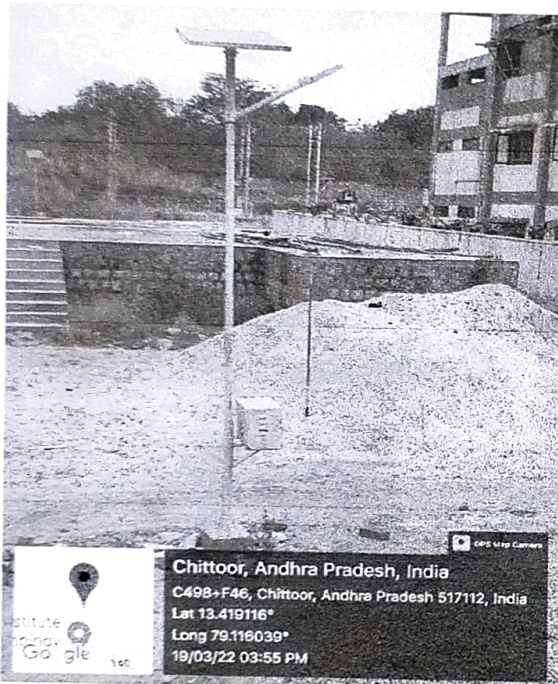
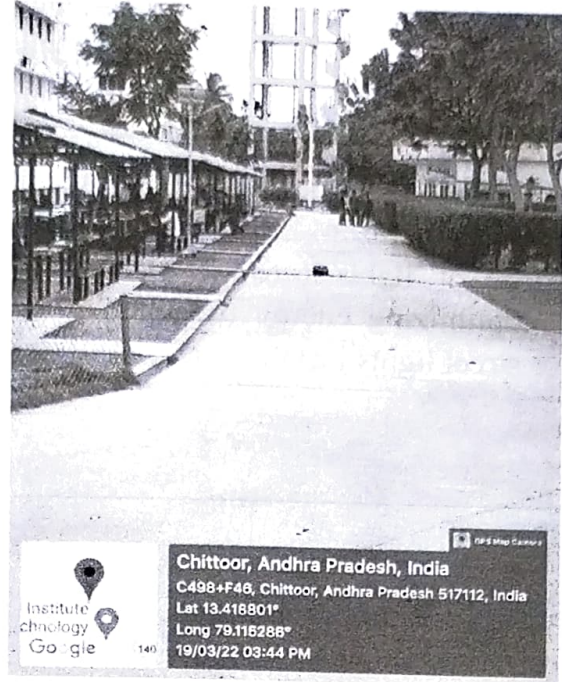
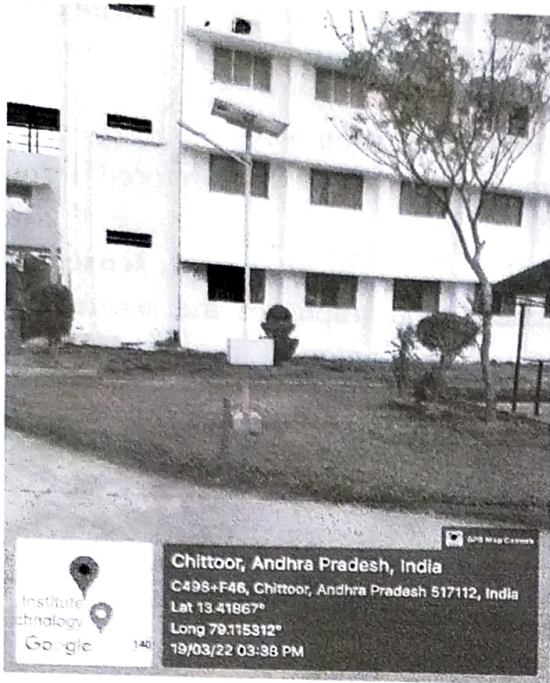
Sensor Based Energy Conservation is adopted in the following ways:

1. Using the sensors, the solar power generation is being monitored through mobile app.
2. Street lights (around 50%) are installed with **light based sensors** for optimizing energy usages. The geo-tagged photographs of the sensor based street lights installed at various locations are given below:



*Navasath*

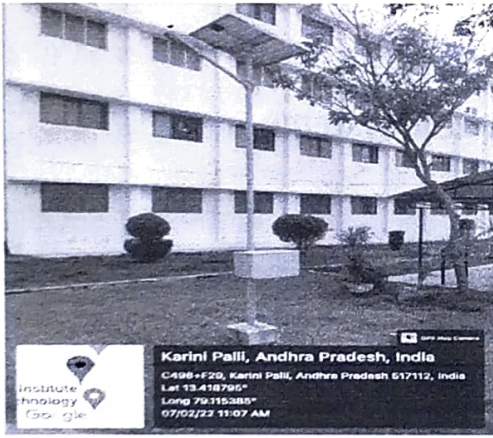
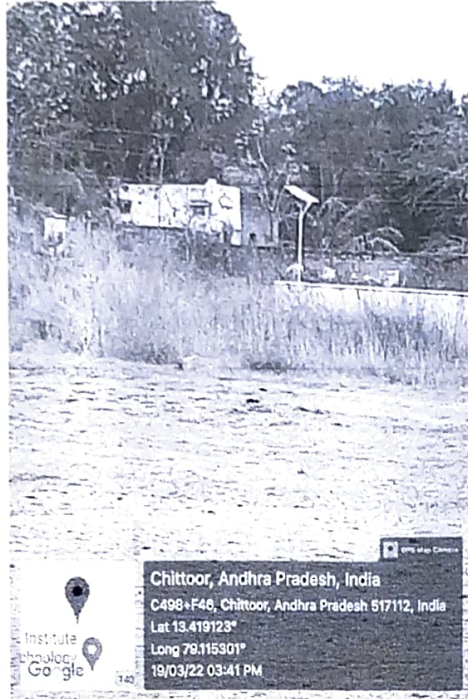
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## **Annexure 4**

### **Use of LED bulbs / Power efficient Equipment**

- **LED Lighting System**
- **LED monitors for all computer systems**

## Use of LED bulbs / Power efficient Equipment

In its pursuit towards an energy efficient campus, the following are being used across the campus.

1. LED Lighting System
2. LED monitors for all computer systems

### 1. LED LIGHTING SYSTEM

By efficient lighting system we shall reap monetary & environmental benefits such as energy savings, reduced electricity bill etc.

**Day Lighting:** Primarily, indoor environmental conditions in classrooms and namely day lighting conditions also influence student's health, well-being and performance. The conscious use of daylight in Classrooms has a great potential for improving the comfort and the academic performance of users, contributing, simultaneously for the rational use of energy in building. Maximum regular occupied spaces at college Campus are daylight & average daylight factor is maintained.

However LED lighting system is being used across the campus wherever required.

**LED bulbs:** In its pursuit towards an energy efficient campus, all the external lighting fixtures are LED based. Around 30% of the total lighting energy consumption (external and internal) is met through highly efficient LED lighting. LED lighting load is around 13.53 kW. The campus management is continuously taking measures to phase out the old fixtures with highly efficient LED fixtures.

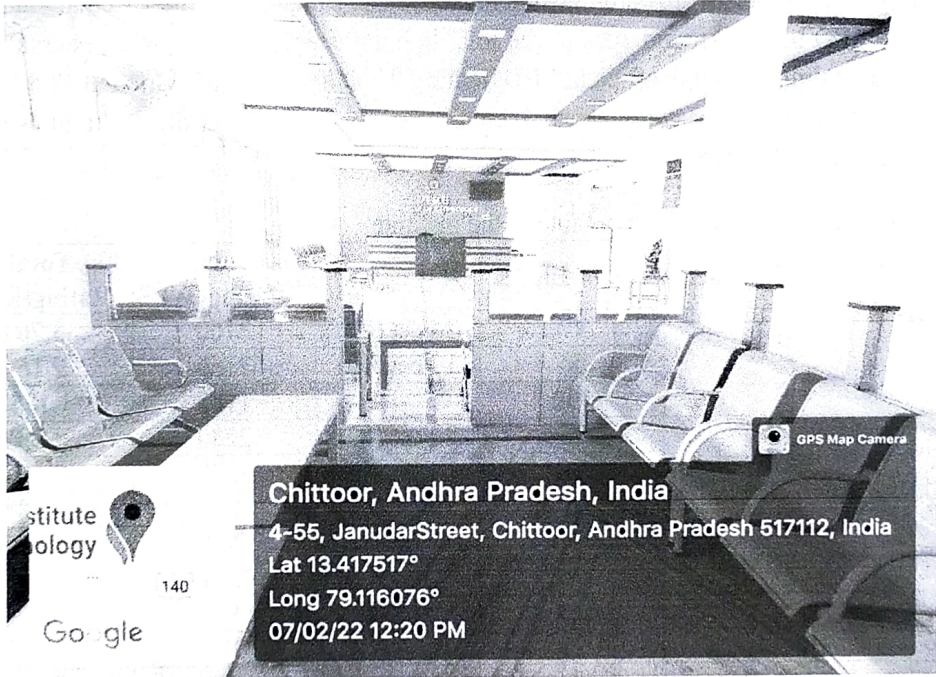
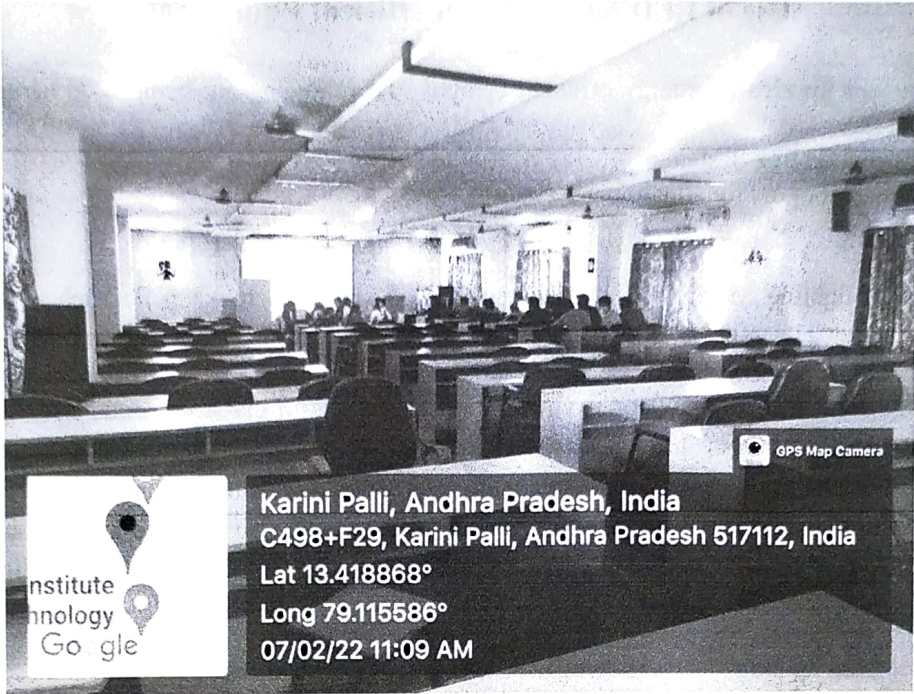
The list of LED lighting fixtures available in the institute:

S.NO	Name of the Block	No. of LEDS	Rating(W)	Total Rating(W)	Total Rating(kW)
1	1	47	2 Feet (80)	3760	3.76
		54	1 Feet (40)	2160	2.16
		132	9	1188	1.188
2	2	26	2 Feet (80)	2080	2.08
		12	1 Feet (40)	480	0.48
3	4	6	2 Feet (80)	480	0.48
		27	9	243	0.243
4	5	16	9	144	0.144
5	6	10	9	90	0.09
6	Hostels	23	9	207	0.207
7	Street Lights	30	90	2700	2.70
Total		383		13530	13.53

**Note:** The institute contains 814 CFL Tubes and 383 LED lights

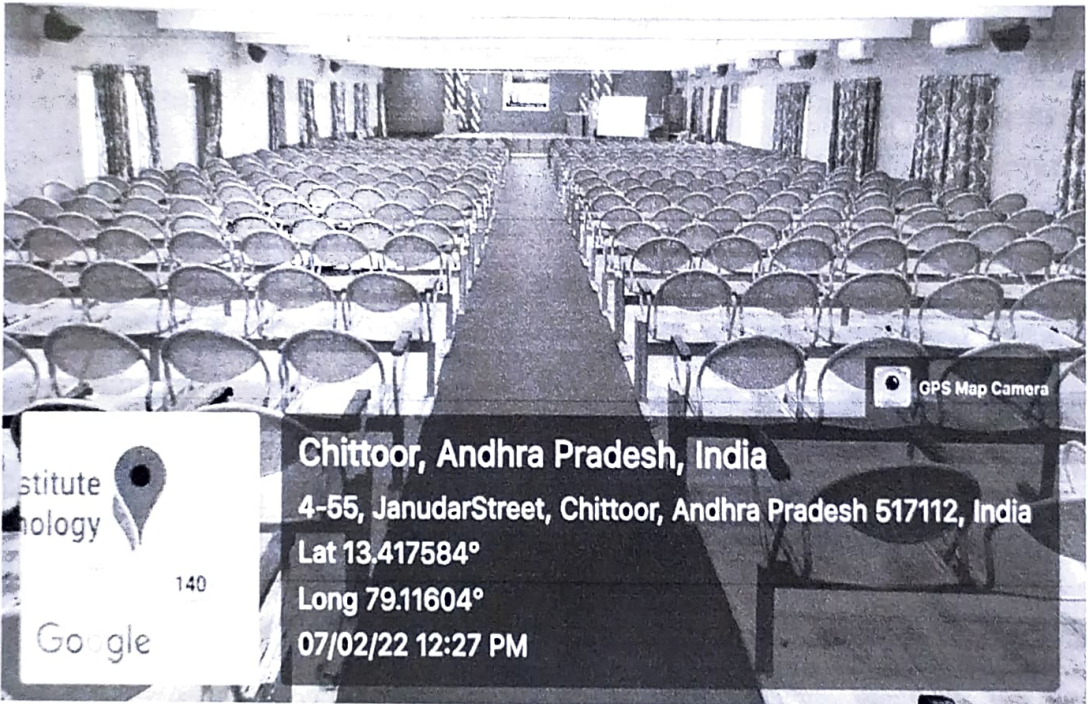
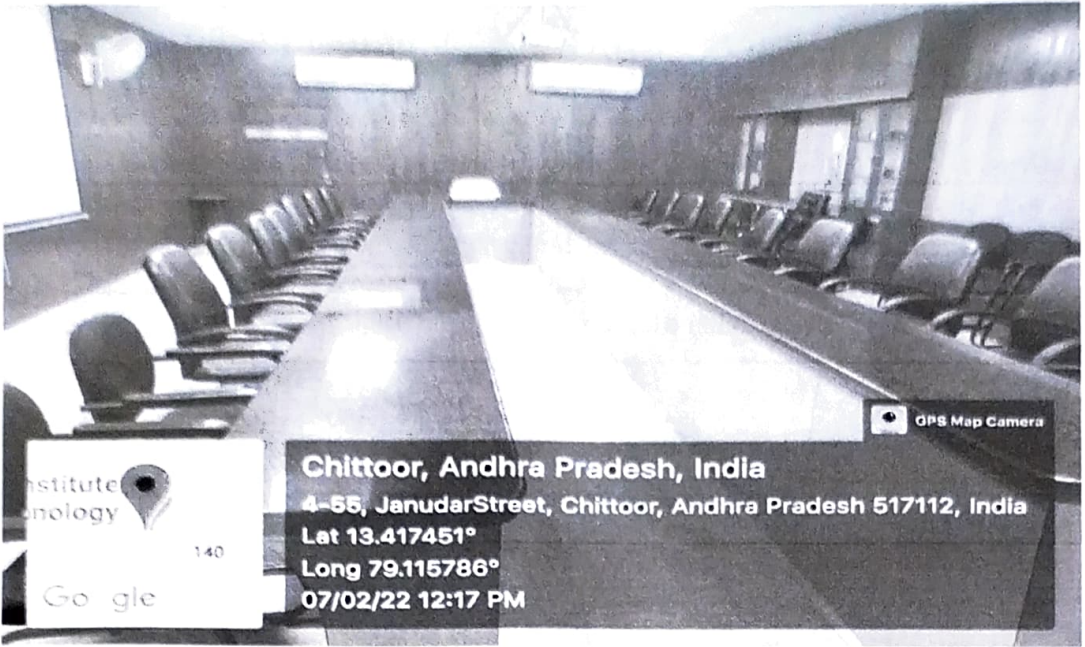
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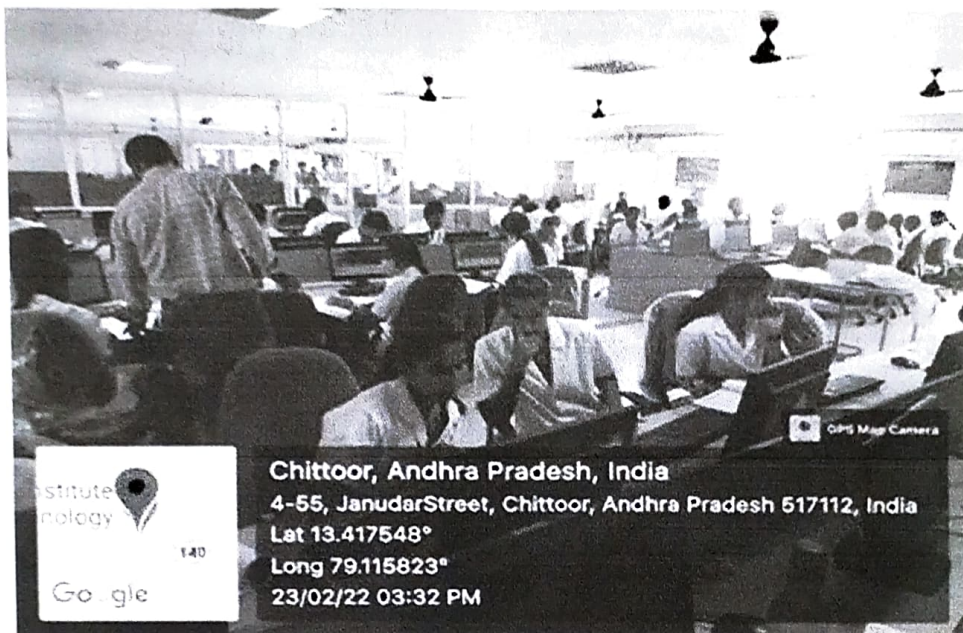
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P. Kothakota



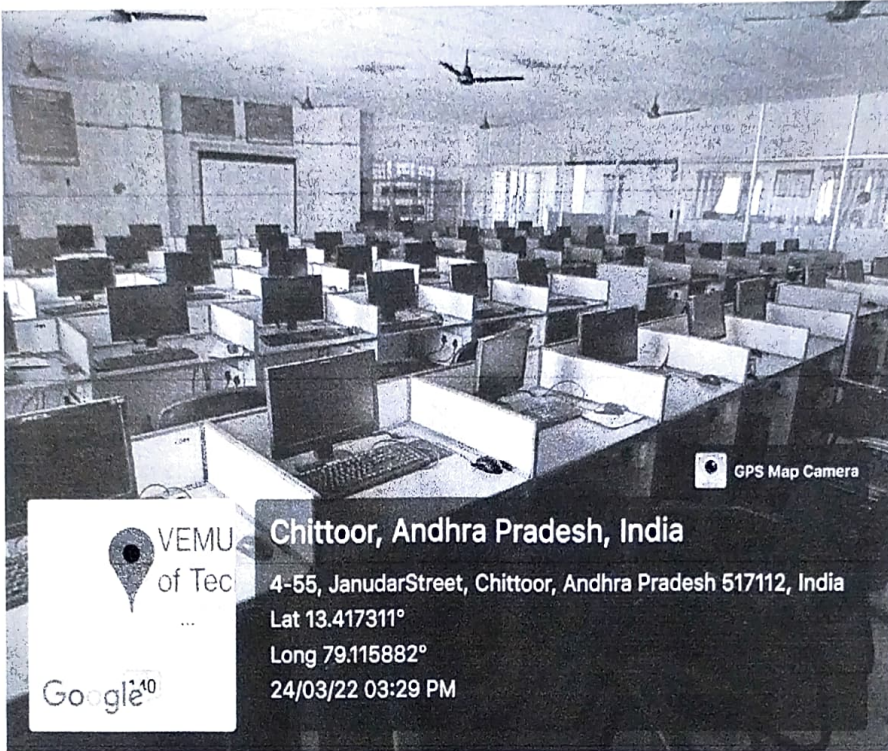
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PRINCIPAL  
Jenu Institute of Technology  
Kothakota

## 2. Energy Efficient Computing Facilities with LED monitors

Vemu Institute of Technology, is providing Computing facilities to the students and staff with latest technologies. The management always encourages the departments to install the Computer laboratories with LED or LCD monitors and low power consumption power supplies. Hence, all the laboratories are maintained with latest configuration with LED/LCD monitors (around 900 monitors) with power back up through UPS.



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P. Kothakota



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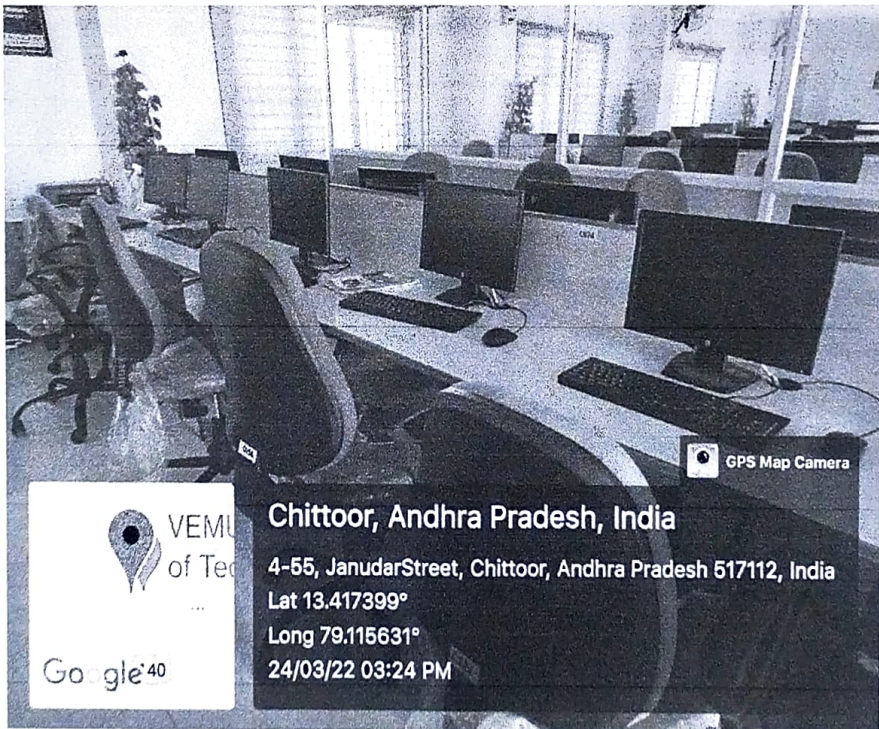
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4-55, JanudarStreet, Chittoor, Andhra Pradesh 517112, India

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Long 79.115882°

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**Chittoor, Andhra Pradesh, India**

4-55, JanudarStreet, Chittoor, Andhra Pradesh 517112, India

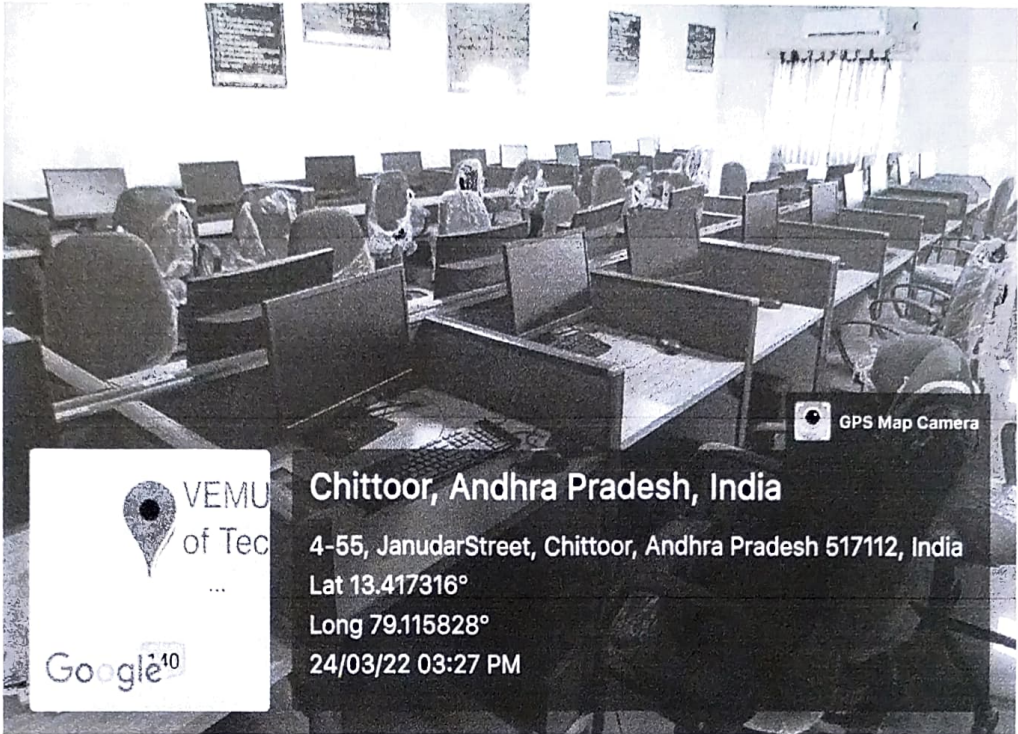
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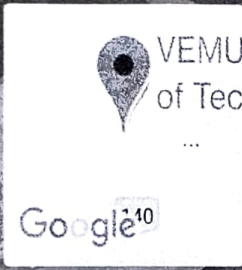
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**PRINCIPAL**  
Vemu Institute of Technology  
P. Kothakota

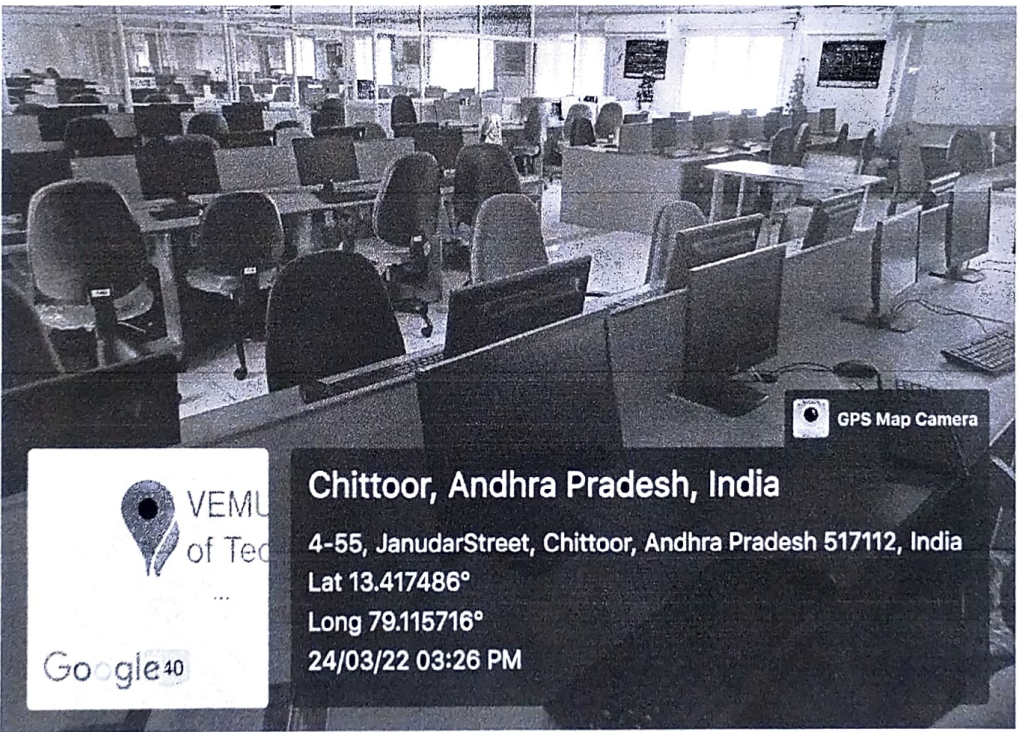


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**PRINCIPAL**  
Vemu Institute of Technology  
P. Kothakota