

ADITYA COLLEGE OF ENGINEERING

Approved by AICTE, Permanently Affiliated to JNTUK & Accredited by NAAC

Recognized by UGC under Sections 2(f) and 12(B) of UGC Act, 1956

Aditya nagar, ADB Road, Surampalem - 533 437

The institution has Long term Strategic Perspective Plan as well Annual Strategic Perspective Plan for continuous improvement and move towards the realization of vision, mission and core values. The strategic plan is deployed and reviewed from time to time by obtaining feedback from stake holders and various academic and administrative bodies. Institutional strategic plan and implemented strategic plan attached below:

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1. Institution Strategic Plan



Strategic Plan of the Institution

(AY 2020-21 to AY 2024-25)

The new millennium is going to witness unprecedented challenges and opportunities in Technical Education. The Technical Education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life. The Technical Education covers wide gamut of programs and specializations. To keep the faculty themselves abreast of the state of the art technology, it is important that they inculcate the habit of innovation and research. This institute is keen to train the faculty to strengthen their research activities and innovations.

A. Improvement in quality Technical Education:

In order to improve the quality of Technical Education, the institute is keen to observe the educational system at IIT and International level and collaborate with them to strengthen its Teaching-Learning Process as well as Research. The Institute plans to improve to collaborate with the reputed Educational Institutes and Universities for:

1. Students exchange, Faculty exchange and Collaborative Research.
2. Experimental and Demonstrative Teaching Learning process to impart skill-based education in the Institution.
3. To impart training to the faculty in pedagogy and relevant technical expertise for further strengthening their teaching skills and keep themselves abreast with the latest developments.
4. To acquire Academic Autonomy to enable the Institute to design the curriculum so as to cater the needs of industry.
5. To participate in National Rankings and Surveys for National Exposure and recognition and to achieve better ranking.

B. Collaboration to impart Skill-based Education:

In order to impart skill-based education, the institute is already collaborated with ADIS ABABA, NOVAL PATENT SERVICES, TIE HYDERABAD, Ui PATH ACADEMIC ALLIANCE, CL MEDIA, TIME, ITU, REDHAT, CISCO, SAKROBOTIX LAB, EDCIL, MICROSOFT INOVATION CENTER, INFOSYS LIMITED (CAMPUS CONNECTING PROGRAMME) & PEARSON VUE and has plans to collaborate with more industries, Reputed Institutes, Universities and Research organizations.

1. Each Department is planned to collaborate with premiere institutes like IITs/NITs for projects, summer trainings, internships and guest lectures.
- 2 Inter-disciplinary researches will be encouraged.

Long term and Medium term goals of the institution:

Accreditation & Ranking

- NAAC accreditation with A+ grade by 2023
- NBA accreditation of 50% of UG and programs by 2022
- NBA accreditation of all UG programs by 2023
- Autonomous status by June 2024
- NIRF
 - a) Within top 150 Engineering Institutes by 2022
 - b) Within top 100 Engineering by 2023
 - c) Up gradation of ranking by 2025.

Research and Development

- 50% of the total faculty to be awarded with PhD degree by 2025.
- All of the faculty from each department should have at least two publication in SCI/SCOPUS/Web of Science in a year and the number of publication to be increased year by year.
- In the period 2020- 2025 total publication should be more than 500 +
- External research grant should be availed by each department.
- Other grants from the different funding agencies should exist in all departments.
- Students research paper publication/ presentation in Journal/ Conference from each department to be increased.
- More Initiatives should be taken to encourage the students for Start-ups and entrepreneurship.
- Faculty members to be involved in consultancy work using their own expertise.

Library, ICT and Physical Infrastructure / Instrumentation

- Increase & development of Library materials in Physical and online form.
- More number of Subscription of E-Journal & E-books to meet the clientele needs.
- Library infrastructure development.
- NDLI membership with library of renowned institutes, Universities, IIT's and remote access of e resources.
- Modernize all class rooms and laboratories.
- To save power.

Human Resource Management

- FDP, STTP, Workshop, seminar on IPR related programme.
- Outreach programme by each department one per semester, training in file management, clerical and secretarial works of non-teaching staff.

Industry Interaction / Collaboration

- Number of MOU with industries to be increased.
- Industry internship and special educational tour for students to be conducted more frequently.
- Industry sponsored Lab to be developed.
- More number of MOUs to be signed by each department with the academic and research organizations to increase the quality of academics and research in the Institution.

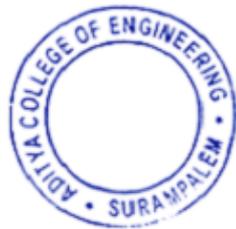
Outcome of Students/Placements

- More opportunity to create for International exposure of students.

- More students should be encouraged for higher studies.
- Involvement of the students in research activity should be increased.
- Participation in different level project and idea competition to be increased.
- Improve Placements in different core Sectors.

Teaching and Learning

- Introduction of new programs
- More market Relevant and futuristic skill based courses to be introduced
- Pedagogical Innovation to be encourages and introduce in teaching learning
- Use of ICT Technology to be increased



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Principal

PRINCIPAL
Aditya College of Engineering
SURAMPALEM-533 437

2. Implemented Strategic Plan



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Aditya Nagar, ADB Road, Surampalem - 533 437, E.G.Dist., Ph: 99631 76662.

The Institution has facilities for alternate sources of energy and energy

Conservation measures

Renewable Energy Source: Solar Power Plant

Energy saving measures:

- Energy management features are activated on computers, laser printers, etc., turn off lights when not used/required, use daylight.
- Use of LEDs, CFLs.
- Use fans when they are needed
- Unplug appliances like printers, faxes, chargers and electronic appliances, when they are not in use.
- Awareness among students and staff on energy conservation through display boards at appropriate places.

The institute met **56%** of its total requirement of power consumption by the Institute from renewable sources.

- In the month of May 2018 Solar Plant was installed
- Solar plant capacity **300 kW**
- The installation cost of total plant is **90,00,000 /-**
- Energy produced from the plant per year : **839.1 MWh/year**

General Details	
Total Capacity of the Plant	300KWp
Roof used for the plant	20,000 Sq-Ft or 2,000 Sq-Mtr
Average Sun Irradiance	4.89 KWh/Sq-Mtr/Day
Expected Generation/Day	1000 to 1200 Kwh
Solar Panels Details	
Total no. of panels	612 No's
Capacity of each panel	325 Wp
Make	Vikram Solar
Technology & no. of cells	Polycrystalline, 72 cell
Type of Busbar system	4 Busbar series type
Working voltage	1000 VDC
Type of connection of panels	In Series
Panel Efficiency	18.5%
Working Temperature Range	-40 ⁰ c to 85 ⁰ c
Panel Dimensions	1956x992x35.2 mm
Weight of each panel	22 Kgs
Inverter Details	
Total no. of Inverters	4 No's
Capacity of each Inverter	50 KVA
Type of Inverter	Solar ON-GRID
Make	ABB
Technology used	Maximum Power Point Tracking (MPPT)
No. of MPPTs/Inverter	3 No's
Weight of Inverter	125 Kgs



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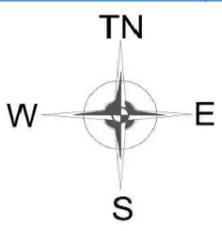
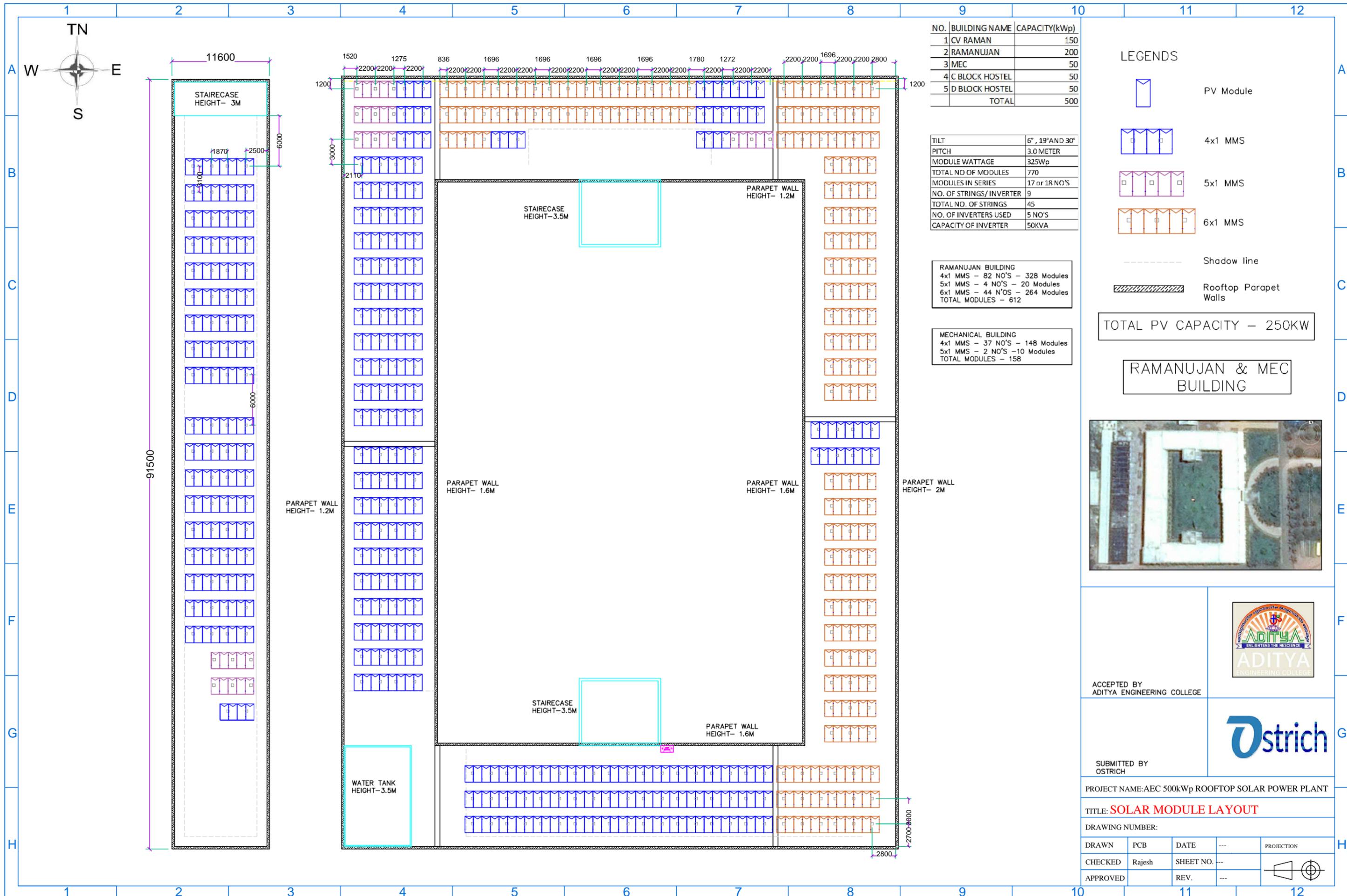
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Geo tagged photos for Solar panels



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NO.	BUILDING NAME	CAPACITY(kWp)
1	CV RAMAN	150
2	RAMANUJAN	200
3	MEC	50
4	C BLOCK HOSTEL	50
5	D BLOCK HOSTEL	50
TOTAL		500

TILT	6°, 19° AND 30°
PITCH	3.0 METER
MODULE WATTAGE	325Wp
TOTAL NO OF MODULES	770
MODULES IN SERIES	17 or 18 NO'S
NO. OF STRINGS/ INVERTER	9
TOTAL NO. OF STRINGS	45
NO. OF INVERTERS USED	5 NO'S
CAPACITY OF INVERTER	50KVA

RAMANUJAN BUILDING
 4x1 MMS - 82 NO'S - 328 Modules
 5x1 MMS - 4 NO'S - 20 Modules
 6x1 MMS - 44 NO'S - 264 Modules
 TOTAL MODULES - 612

MECHANICAL BUILDING
 4x1 MMS - 37 NO'S - 148 Modules
 5x1 MMS - 2 NO'S - 10 Modules
 TOTAL MODULES - 158

LEGENDS

- PV Module
- 4x1 MMS
- 5x1 MMS
- 6x1 MMS
- Shadow line
- Rooftop Parapet Walls

TOTAL PV CAPACITY - 250KW

RAMANUJAN & MEC BUILDING



ACCEPTED BY
ADITYA ENGINEERING COLLEGE



SUBMITTED BY
OSTRICH

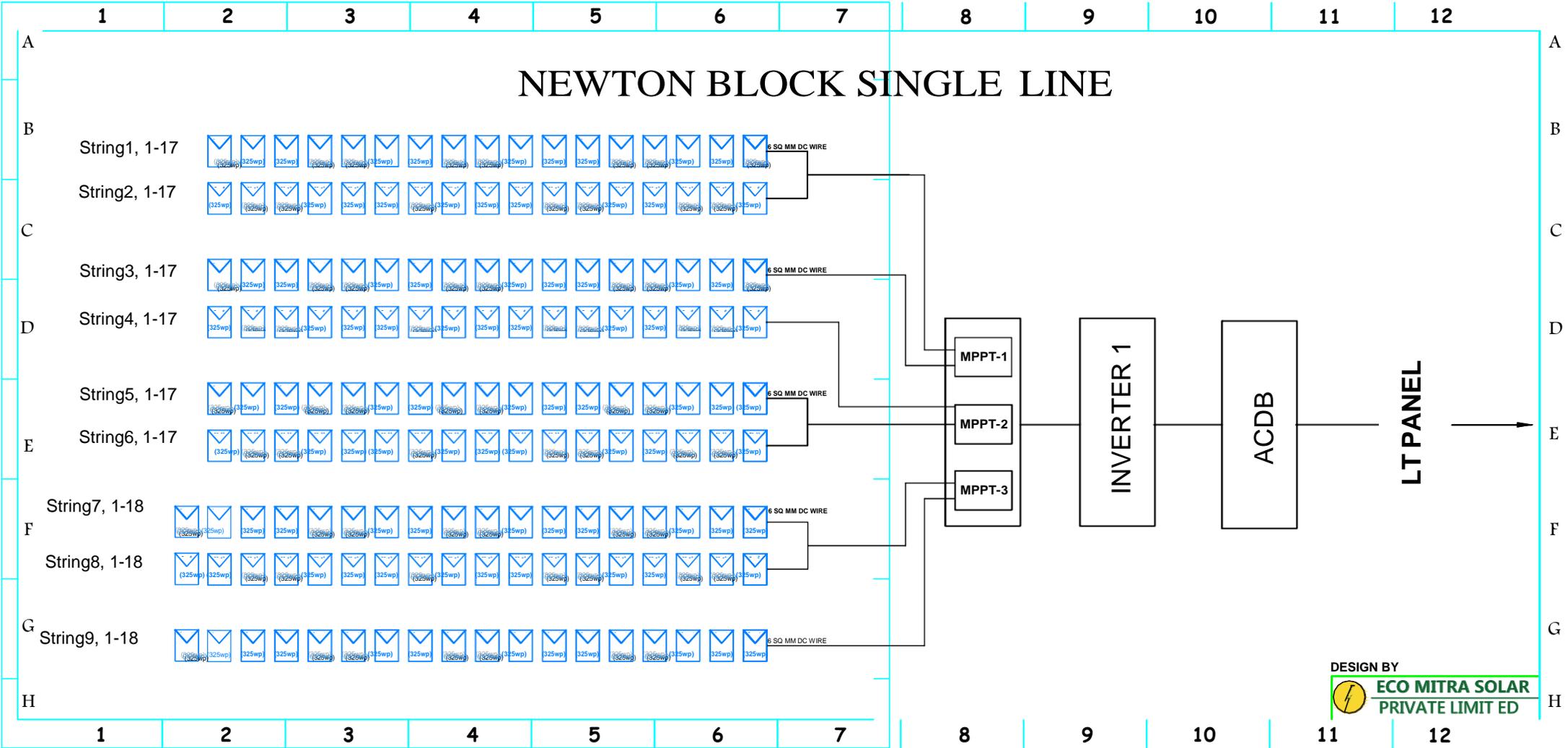
PROJECT NAME: AEC 500kWp ROOFTOP SOLAR POWER PLANT

TITLE: **SOLAR MODULE LAYOUT**

DRAWING NUMBER:

DRAWN	PCB	DATE	---	PROJECTION
CHECKED	Rajesh	SHEET NO.	---	
APPROVED		REV.	---	

NEWTON BLOCK SINGLE LINE



DESIGN BY

ECO MITRA SOLAR
 PRIVATE LIMITED



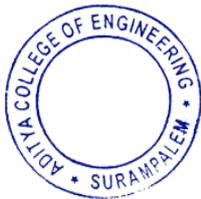
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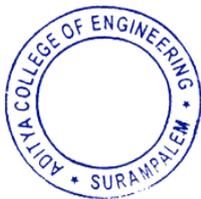
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Students Participated while installing the solar panels



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SURAMPALEM-533 437



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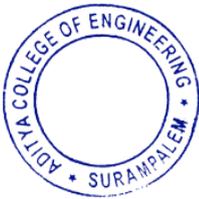
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Power bill comparative statement after Installation of Solar panels

S.No	Month	Total Consumption in KWH	From Grid in KWH	From Solar in KWH	Power Bill in Rs
1	Jan-18	77708	77708	Without Solar	7,06,226/-
2	Feb-18	96262	96262		8,80,293/-
3	Mar-18	134634	134634		14,06,761/-
4	Apr-18	106914	106914		8,97,158/-
5	May-18	72501	72501		8,71,329/-
6	Jun-18	107287	23970	83317	3,30,494/-
7	Jul-18	128005	60567	67438	6,39,340/-
8	Aug-18	149321	97266	52055	9,27,438/-
9	Sep-18	138748	73629	65119	8,37,606/-
10	Oct-18	136761	65751	71010	8,04,625/-
11	Nov-18	116857	54797	62060	5,63,805/-
12	Dec-18	103990	51210	52780	5,08,654/-
13	Jan-19	99036	33341	65695	3,68,318/-
14	Feb-19	116389	49424	66965	5,24,668/-



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Customer
Support
CALL US : 1912

HT DIGITAL BILL FOR THE MONTH OF November 2019

GST NO : 37AAACE9876B1ZH

Service Details		Consumer Details		BILL DATE 05-12-2019	DUE DATE FOR PAYMENT 19-12-2019
Contracted MD(KVA/HP)	300 (KVA/HP)	SC. No. RJY856			
Specified Voltage(KVA)	11 KV	M/S SAROJINI EDUCATIONAL SOCIETY,			
Actual Voltage	11 KV	SURAMPALAM(V)			
Category	IIA	PEDDAPURAM TOWN			
Feeder Type	COMMON	E G DT			

Total Monthly Consumption Details

Particulars	Date	KWH	KVAH	KVA	TOD PEAK	TOD OFF PEAK	COLONY	PF	LF
Reading as on	01/12/2019	436467	438214.5	80.600	-	-	-	-	-
Reading as on	01/11/2019	411359.5	413028	-	-	-	-	-	-
Difference	-	25107.5	25186.5	-	-	-	-	-	-
Multiplying Factor	-	3	3	3.000	-	-	-	-	-
Total Consumption	-	75322	75559	241.800	20505	0.00	-	1	26
Monthly Min Consumption	-	-	6045	240.000	-	-	-	-	-
Main Consumption	-	75559	-	-	-	-	-	-	-
L & F	-	-	-	-	-	-	-	-	0.00
Segregated Colony	-	-	-	-	-	-	0	-	-

Open Access Consumption Details

Supplier Name	KWH Share	KVA Share	% Wheeling
Solar Units	0	17508.000	0

Billing Summary

Particulars	Bill Issue Date	KVAH	KVA	TOD PEAK	TOD OFF PEAK	COLONY
Billed Units	05-12-2019	58052	241.800	20505	0.00	0

BILL DETAILS

Particulars	Units	Rate Per Unit	Amount(Rs.)
Demand Charges(Normal)	241	475	114855
Demand Charges(Penal)(80.6%)	0	950	0
Energy Charges(All Units)	58052	7.65	444097.8
Energy Excess Charges			0
Electricity Duty Charges	75560	0.06	4533.6
Colony Charges	0	0.00	0
L&F Charges			0.00
Energy Charges Including Fuel Cost Adjustment			0.00
Fuel Surcharge Adjustment			0.00

ToD Charges		20505
ToD Incentive (-)		0
Sub Total		583991.4
Customer Charges		1406
Wheeling Charges		0
LPF Charges		0
RKVAH Surcharge Hydel		0
RKVAH Surcharge Wind		0
Open Access CSS		0
ACD Surcharge		0
Late Payment Charges		0
Interest on ED		0
Penal Interest		0
Transformer Hire Charges		0
Differential Voltage Surcharges		0
Load Factor incentive (-)		0
Short MD Shortfall		0
Total For The Month		585397.4
25% Rebate Application		0
Ferro Incentive(-)		0
Pooled Cost Adj(-)		0
Net ICD Amt(ICD-TDS)(0-0)(-)		0
Other Credit Adj		0
Loss (or) Gain		-0.4
NET BILL		585397
(Previous Years)Arrears before 31- Mar-2019		0.00
(Current Years)Arrears after 01-Apr-2019		-0.12
Net Payable Rs.		585397
This is a system generated bill only for information , please refer to the bill issued by SAO of the circle only.	(Rupees Five Lakhs Eighty Five Thousand Three Hundred andNinety Seven Only)	

Customer
Support
CALL US : 1912

HT DIGITAL BILL FOR THE MONTH OF December 2019

GST NO : 37AAACE9876B1ZH

Service Details		Consumer Details		BILL DATE 05-01-2020	DUE DATE FOR PAYMENT 19-01-2020
Contracted MD(KVA/HP)	300 (KVA/HP)	SC. No. RJY856			
Specified Voltage(KVA)	11 KV	M/S SAROJINI EDUCATIONAL SOCIETY,			
Actual Voltage	11 KV	SURAMPALAM(V)			
Category	IIA	PEDDAPURAM TOWN			
Feeder Type	COMMON	E G DT			

Total Monthly Consumption Details

Particulars	Date	KWH	KVAH	KVA	TOD PEAK	TOD OFF PEAK	COLONY	PF	LF
Reading as on	01/01/2020	462065	463959	77.260	-	-	-	-	-
Reading as on	01/12/2019	436467	438214.5	-	-	-	-	-	-
Difference	-	25598	25744.5	-	-	-	-	-	-
Multiplying Factor	-	3	3	3.000	-	-	-	-	-
Total Consumption	-	76794	77233	231.780	20185.47	0.00	-	0.99	26
Monthly Min Consumption	-	-	6000	240.000	-	-	-	-	-
Main Consumption	-	77233	-	-	-	-	-	-	-
L & F	-	-	-	-	-	-	-	-	0.00
Segregated Colony	-	-	-	-	-	-	0	-	-

Open Access Consumption Details

Supplier Name	KWH Share	KVA Share	% Wheeling
Solar Units	0	18086.000	0

Billing Summary

Particulars	Bill Issue Date	KVAH	KVA	TOD PEAK	TOD OFF PEAK	COLONY
Billed Units	05-01-2020	59148	240.000	20185.47	0.00	0

BILL DETAILS

Particulars	Units	Rate Per Unit	Amount(Rs.)
Demand Charges(Normal)	240	475	114000
Demand Charges(Penal)(80%)	0	950	0
Energy Charges(All Units)	59148	7.65	452482.2
Energy Excess Charges			0
Electricity Duty Charges	77234	0.06	4634.04
Colony Charges	0	0.00	0
L&F Charges			0.00
Energy Charges Including Fuel Cost Adjustment			0.00
Fuel Surcharge Adjustment			0.00

ToD Charges		20185
ToD Incentive (-)		0
Sub Total		591301.24
Customer Charges		1406
Wheeling Charges		0
LPF Charges		0
RKVAH Surcharge Hydel		0
RKVAH Surcharge Wind		0
Open Access CSS		0
ACD Surcharge		0
Late Payment Charges		0
Interest on ED		0
Penal Interest		0
Transformer Hire Charges		0
Differential Voltage Surcharges		0
Load Factor incentive (-)		0
Short MD Shortfall		0
Total For The Month		592707.24
25% Rebate Application		0
Ferro Incentive(-)		0
Pooled Cost Adj(-)		0
Net ICD Amt(ICD-TDS)(0-0)(-)		0
Other Credit Adj		0
Loss (or) Gain		-0.24
NET BILL		592707
(Previous Years)Arrears before 31- Mar-2019		0.00
(Current Years)Arrears after 01-Apr-2019		-0.12
Net Payable Rs.		592707
This is a system generated bill only for information , please refer to the bill issued by SAO of the circle only.		(Rupees Five Lakhs Ninety Two Thousand Seven Hundred and Seven Only)