



ADITYA COLLEGE OF ENGINEERING

Approved by AICTE, Affiliated to JNTUK & Accredited by NAAC

Recognized by UGC under section 2(f) of UGC Act 1956

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

6.2.1 The institutional Strategic/ perspective plan is effectively deployed

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Institutional Strategic perspective / developmental plan



Strategic Perspective plan of the institution **(AY 2021-22 to AY 2025-26)**

The institution has Long term 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.

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) L & T and 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.

Institution Strategic Goals:

1. Accreditation & Ranking
2. Teaching and Learning
3. Research and Development
4. Alumni Interaction
5. Industry Interaction / Collaboration
6. Student's development and participation
7. Staff development & welfare
8. Entrepreneurship
9. Library, ICT and Physical Infrastructure / Instrumentation

Strategic Planning (2021-2026)


Accreditation & Ranking	<ul style="list-style-type: none"> • NBA accreditation of 100% of UG programs by 2022 • NAAC accreditation with A++ Grade by 2023 • Autonomous status by June 2024 • NIRF <ul style="list-style-type: none"> ➤ Within top 150 Engineering Institutes by 2023 within Top 100 Engineering by 2023 ➤ Up gradation of ranking by 2025.
	<ul style="list-style-type: none"> • Introduction of more market Relevant and futuristic skill based Add on courses to be introduced • Pedagogical Innovation-to be encourage and introduce in teaching learning • Use of more teaching aids and adopt more ICT

Teaching and Learning	<ul style="list-style-type: none"> • Development of teaching plan as per OBE • Preparation of Lesson Plan based on CO & PO mapping • Development of e- learning resources • Promote research culture & facilities • Provide mentoring and personal support • Follow a transparent and fair feedback system • Conduct training based on need analysis • Evaluation parameters and benchmarking • Continuous assessment to measure outcomes
Research and Development	<ul style="list-style-type: none"> • 50% of the total faculty to be awarded with PhD degree by 2025. • Dedicated R &D facilitation Centre • Establish and develop Laboratories with more research facility • Fund generation through Project proposals • Apply for Government/Non Government industry, sponsored funds • Collaborations with Government & Private Institutes, Universities and Research Organizations • Applying for patent • 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.
Alumni Interaction	<ul style="list-style-type: none"> • Data base creation, Regular interactions with alumni and networking • Recognition of successful alumni • Leverage for guest lecturers/internships/placements/training/ entrepreneurship • Exploring Contributions • Brand ambassadors • Sponsorships/scholarships/fund generation
	<ul style="list-style-type: none"> • More no. of MoUs with industries • Support for internships, visits, trainings, guest lectures

Industry Interaction / Collaboration	<ul style="list-style-type: none"> • Identifications of industry needs and advice on Curriculum for extra courses apart from curriculum. • Providing opportunities for Industry based/sponsored projects • Providing career guidance • Establishing innovation centres
Student's development and participation	<ul style="list-style-type: none"> • Budget allocation for student development programmes and activities • Students Trainings & Placement Activities • Formation of student council • Student's representation in various committee and cell • Participation in competitions • Organizing competitions • Credit transfer & compensation • Rewards & recognitions of achievers • Participation in extracurricular activities • Participating in social and welfare activities
Staff development & welfare	<ul style="list-style-type: none"> • Recruitment Policy formation & implementation • Staff performance evaluation system • Staff Training for quality improvement • Best possible work facilities & infrastructure facilities • Staff welfare policy implementation • Career advancement schemes • Rewards, recognitions and incentives • Deputation for seminars, conferences and workshops etc. • Sponsorship/ Motivation for qualification improvement • Support for research, consultancy, innovations
Entrepreneurship	<ul style="list-style-type: none"> • Establishment of Entrepreneurship Development Cell • Effective functioning of entrepreneurship development Cell • MoUs with organizations for entrepreneurship development Providing training & guidance for entrepreneurship development • Bringing more experts of the field for seminar, lecture, workshop for entrepreneurship development • Establishing incubation centers

	<ul style="list-style-type: none"> • Promoting, sponsoring and facilitating entrepreneurship development.
Library, ICT and Physical Infrastructure / Instrumentation	<ul style="list-style-type: none"> • Infrastructure building development & modification • More number of Subscription of E-Journal & E-books • Library infrastructure development. <p>NDLI membership with library of renowned institutes, Universities, IIT's and remote access of e - resources.</p> <ul style="list-style-type: none"> • Modernize all class rooms and laboratories to save power. • Smart Class rooms, Tutorials, Seminar halls • Modernization of Laboratory & equipment • More ICT enabled classrooms • Library infrastructure up gradation • System up gradation • Functional facilities for e-learning • Safety & Security management • Water facility • Medical facility • Developing sports (indoor/outdoor) facilities • Plantations • Rain water harvesting • Renewable Energy usage • Hygiene, zero plastic & green campus • Recycling of water




Principal
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 Aditya College of Engineering
 SURAMPALEM-533 437

Implemented perspective plan



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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

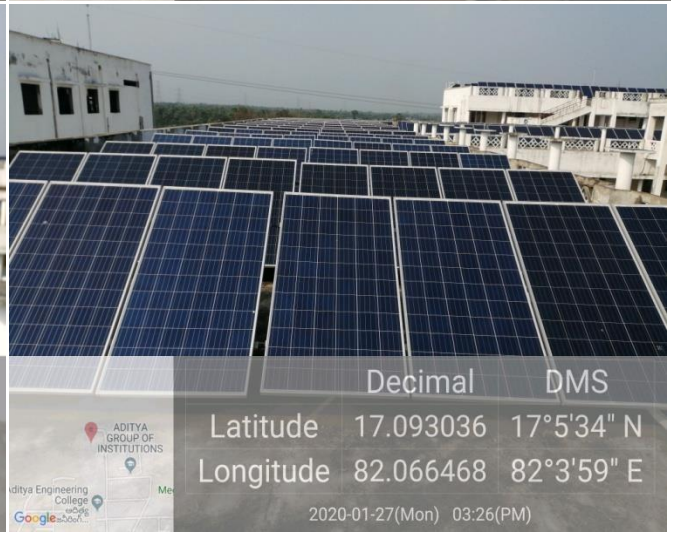


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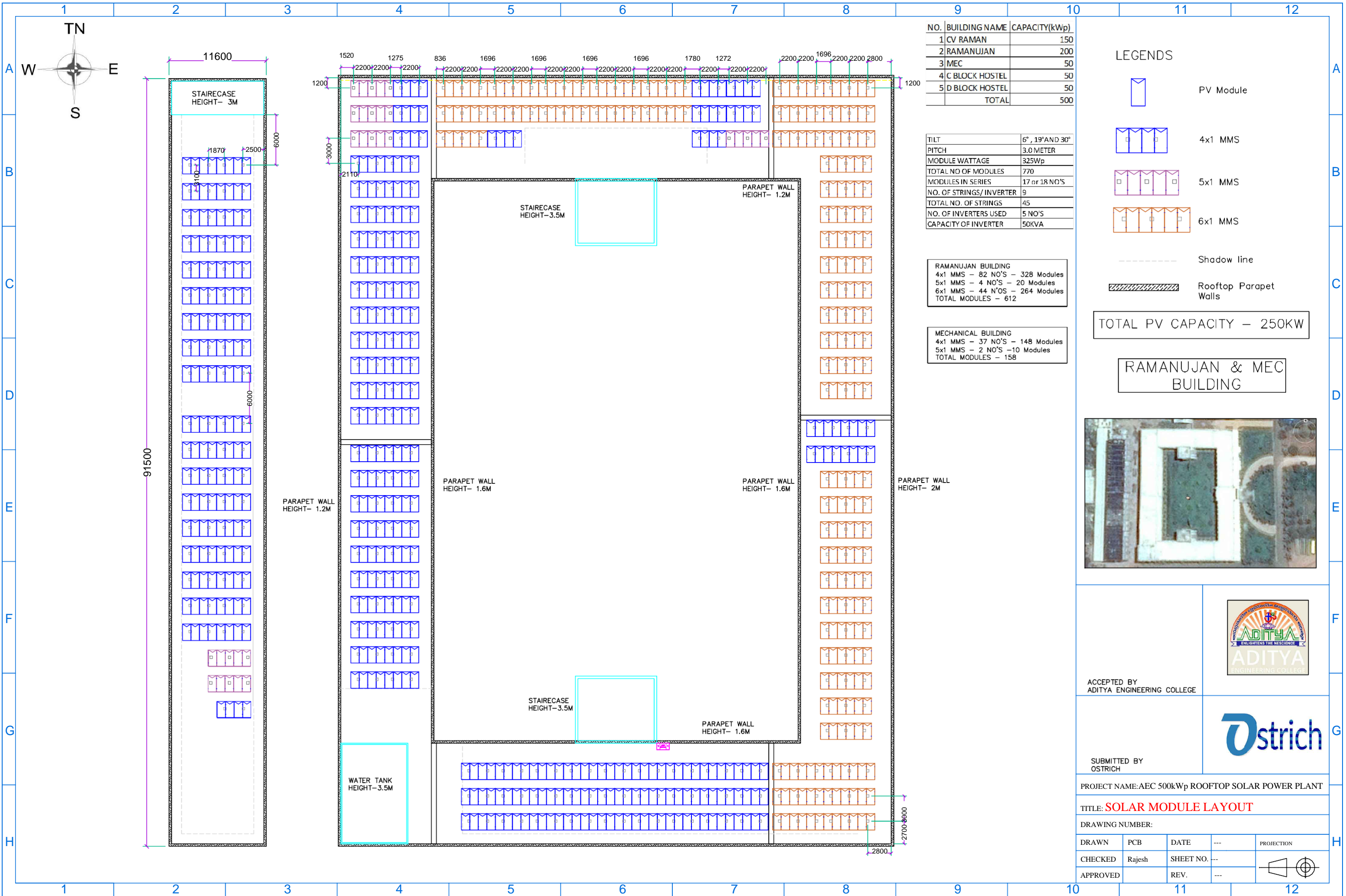
Geo tagged photos for Solar panels



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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

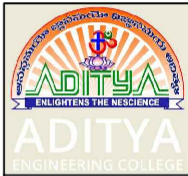
Rooftop Parapet Walls

TOTAL PV CAPACITY - 250KW

RAMANUJAN & MEC BUILDING



ACCEPTED BY
ADITYA ENGINEERING COLLEGE



ostrich

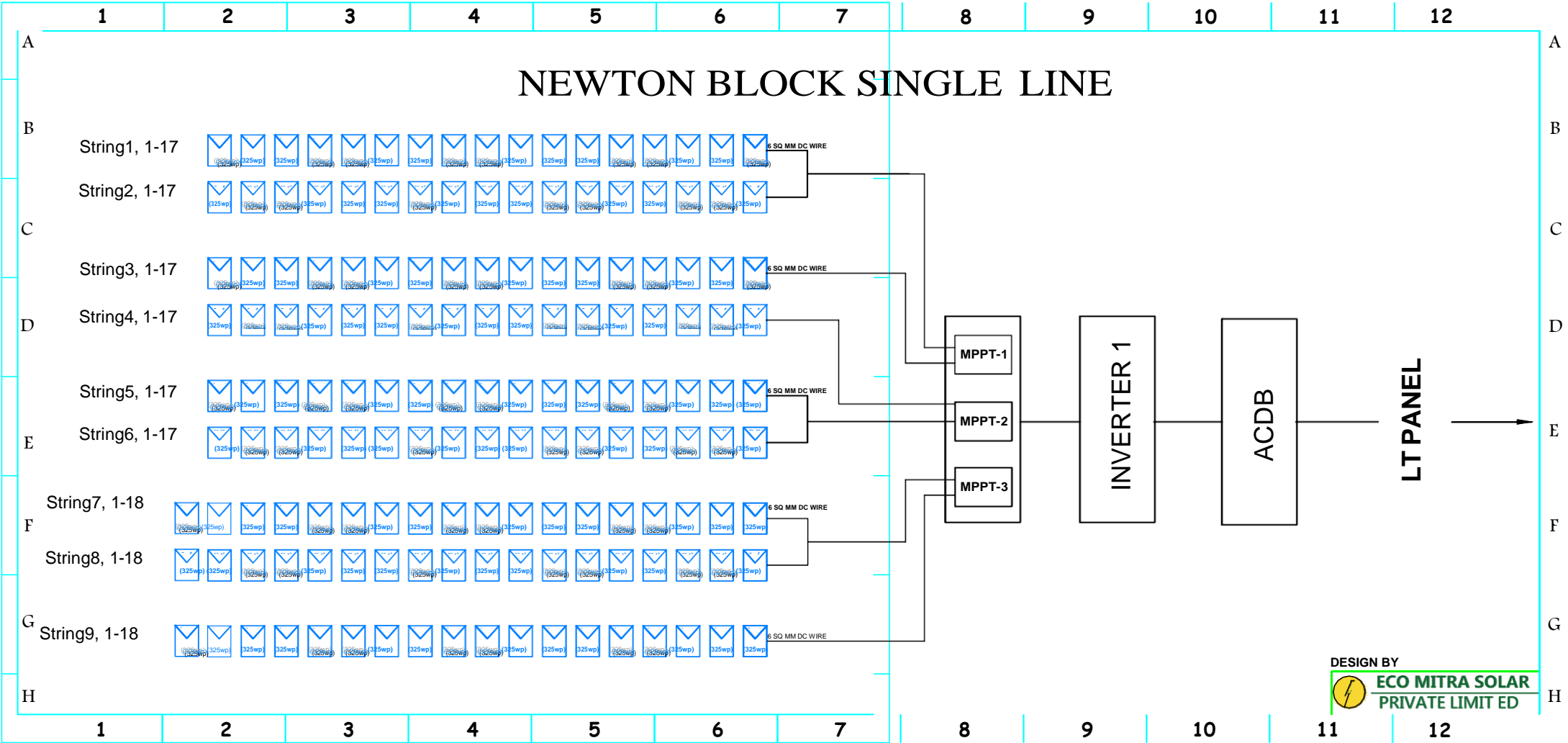
SUBMITTED BY
OSTRICH

PROJECT NAME: AEC 500kWp ROOFTOP SOLAR POWER PLANT

TITLE: **SOLAR MODULE LAYOUT**

DRAWING NUMBER:

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





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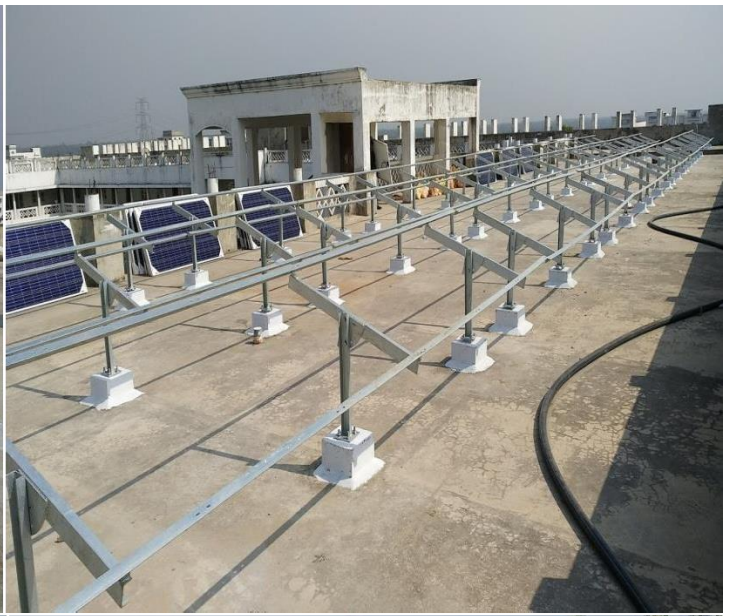
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Students Participated while installing the solar panels



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A handwritten signature in green ink, likely of the Principal, written in a stylized, cursive script.

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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	SURAMPALEM(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	-				-	-	-	-	-
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 and Ninety 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	SURAMPALEM(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	-				-	-	-	-	-
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
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