

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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| 2 | Implemented Strategic Plan | 5 |

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



A handwritten signature in green ink, appearing to be "A. S. S.", written over a horizontal line.

Principal

PRINCIPAL
Aditya College of Engineering
SURAMPALEM-533 437

2. Implemented Strategic Plan



ADITYA COLLEGE OF ENGINEERING

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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 |



(Signature)

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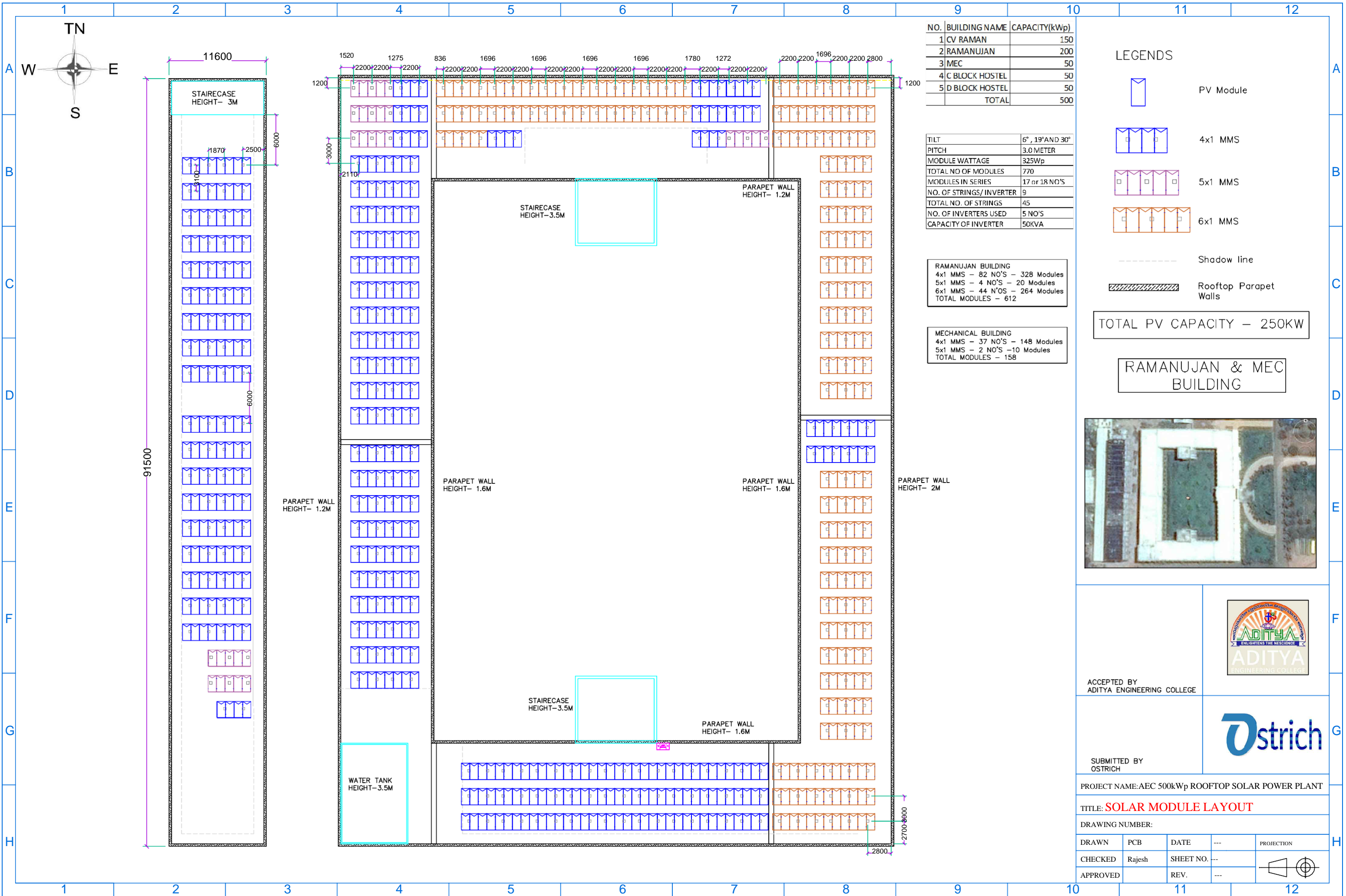
Geo tagged photos for Solar panels



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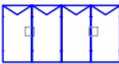
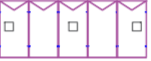
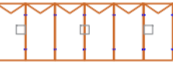
| NO. | BUILDING NAME | CAPACITY(kWp) |
|-------|----------------|---------------|
| 1 | CV RAMAN | 150 |
| 2 | RAMANUJAN | 200 |
| 3 | MEC | 50 |
| 4 | C BLOCK HOSTEL | 50 |
| 5 | D BLOCK HOSTEL | 50 |
| TOTAL | | 500 |

| | |
|--------------------------|------------------|
| 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

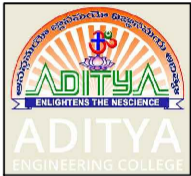
 Rooftop Parapet Walls

TOTAL PV CAPACITY - 250KW

RAMANUJAN & MEC BUILDING



ACCEPTED BY
ADITYA ENGINEERING COLLEGE



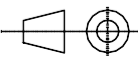
 Ostrich

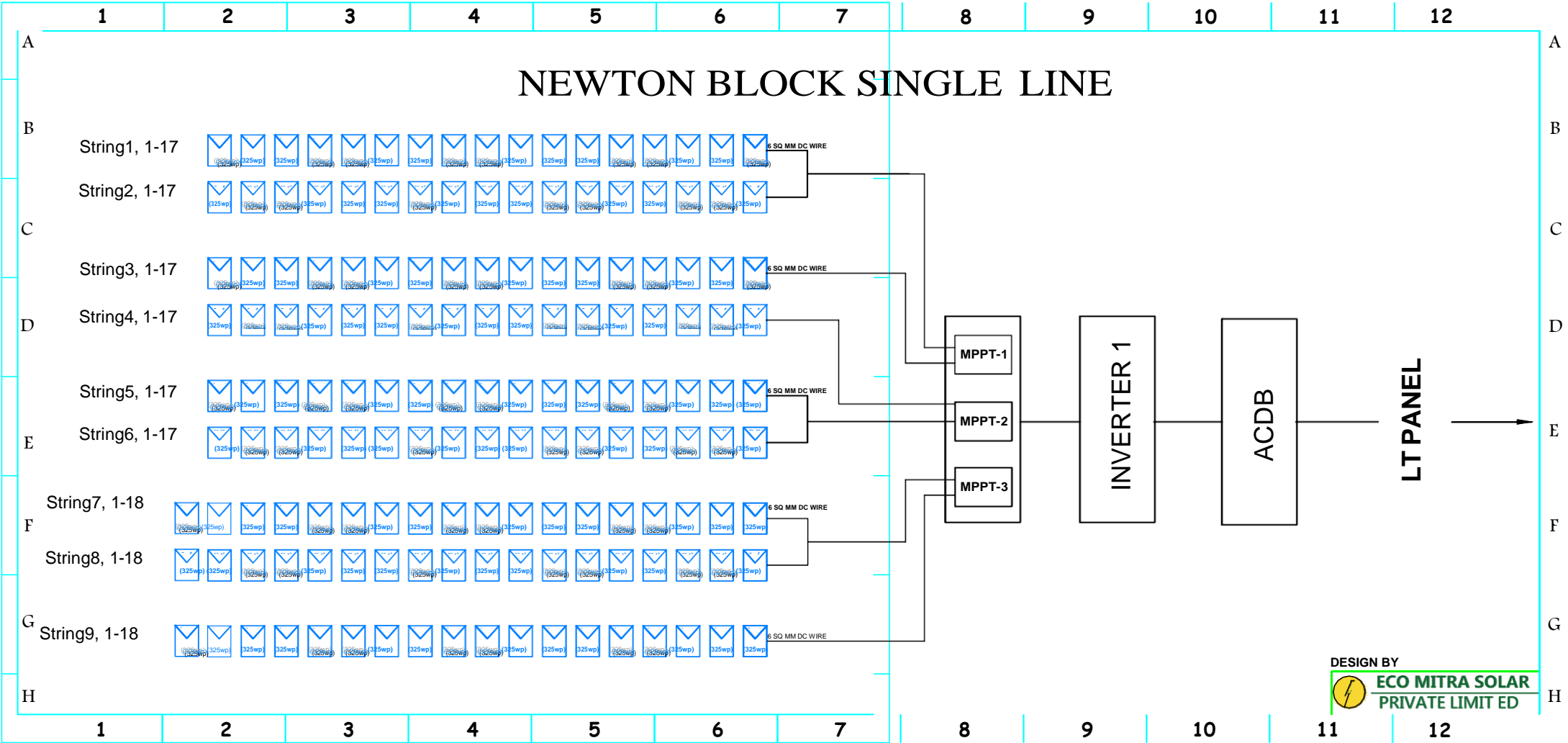
SUBMITTED BY
OSTRICH

PROJECT NAME: AEC 500kWp ROOFTOP SOLAR POWER PLANT

TITLE: **SOLAR MODULE LAYOUT**

DRAWING NUMBER:

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



DESIGN BY
 **ECO MITRA SOLAR**
PRIVATE LIMITED



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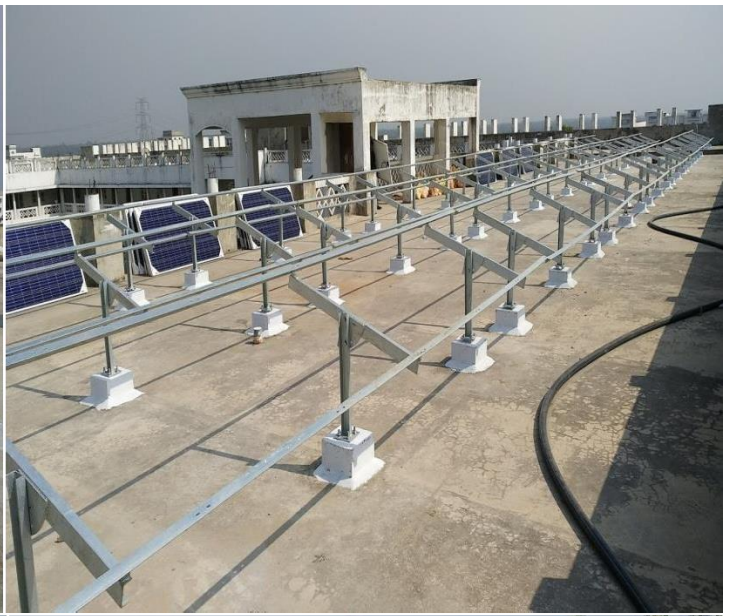
Aditya Nagar, ADB Road, Surampalem - 533 437, E.G.Dist., Ph: 99631 76662.

Students Participated while installing the solar panels



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SURAMPALEM-533 437



ADITYA COLLEGE OF ENGINEERING

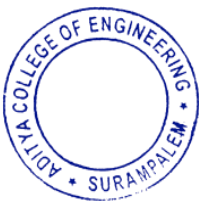
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Power bill comparative statement after Installation of Solar panels

| 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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SURAMPALAM-533 437

| | | | | | | | | | |
|------------------------------------------------|--------------|-----------------------------------|------------------|---------|---------------|-------------------------|--------------------------|---------------------------------------|------|
| | | | | | | | | 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 |
| 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) | |