

# 7.4.2 b University as a body promote a public pledge toward 100% renewable energy (Solar Power, Solar Light)

## **Solar Power**



### Renewable Energy in campus - Roof-Top Solar Power Plants - 550 $KW_p$





Roof-top Solar Power Plant I of 150kWp capacity commissioned in June 2014 at a cost of 1.32Cr.
Return on Investment is 1.09 Cr.

Roof-top Solar Power Plant II of 100kWp capacity commissioned in October 2014 at a cost of 62Lacs. Return on Investment is 71.60 Lacs.

New Roof-top Solar Power Plant III of 300kWp capacity commissioned in October 2018 at a cost of 1.20Cr. Return on Investment is 61.20 Lacs.

✤ Total power generated through the Solar PV plants is 26,09,657 units till 30th June 2020, our average monthly energy saving is 38 %.

Installation of additional 100 Kwp Solar PV project on the RCC Roofs of School of Architecture
Building and Innovation & Incubation Centre at a cost of Rs. 40 lakhs. (Work in progress)

## **Solar Power**



#### Google Satellite Map View



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#### Response : **25% - 50%**

| Sl. No. | Month & Year | Energy<br>Consumed from<br>Utility Grid(EB)<br>Units(kWh) | Energy<br>Generated By<br>Solar Plant<br>Units(kWh) | Energy<br>Generated By<br>DG Unit<br>Units(kWh) | % of Energy Saved<br>by 550 KW <sub>p</sub> Solar<br>Plant |
|---------|--------------|---|---|---|--|
| 1       | July 2019    | 234173  | 127431  | 1246  | 35.02  |
| 2       | Aug 2019     | 258204  | 123715  | 1132  | 32.29  |
| 3       | Sep 2019     | 331392  | 124624  | 948   | 27.27  |
| 4       | Oct 2019     | 284772  | 120521  | 1048  | 29.66  |
| 5       | Nov 2019     | 315108  | 128542  | 1279  | 28.89  |
| 6       | Dec 2019     | 175296  | 110232  | 1204  | 38.44  |
| 7       | Jan 2020     | 188682  | 128354  | 1286  | 40.32  |
| 8       | Feb 2020     | 251885  | 130241  | 1802  | 33.92  |
|         |              |   |   | Average<br>Energy Saved<br>by Solar plant       | 33.87 %  |

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## **Solar Water Heaters**







Men's Hostel

Ladies Hostel

| MEN'S HOSTEL       |              |                    |  |  |  |  |
|--------------------|--------------|--------------------|--|--|--|--|
| Block              | No. of tanks | Capacity in litres |  |  |  |  |
| A Block            | 20           | 5000               |  |  |  |  |
| B Block            | 6            | 3000               |  |  |  |  |
| C Block            | 6            | 3000               |  |  |  |  |
| D Block            | 8            | 4000               |  |  |  |  |
| Main block         | 20           | 5000               |  |  |  |  |
| PG block           | 12           | 3000               |  |  |  |  |
| LADIES HOSTEL      |              |                    |  |  |  |  |
| Main block         | 10           | 5000               |  |  |  |  |
| Annexe Block       |              |                    |  |  |  |  |
| New Block Phase 1  | 11           | 2750               |  |  |  |  |
| STAFF QUARTERS     |              |                    |  |  |  |  |
| New Staff Quarters | 23           | 5750               |  |  |  |  |
| Total Capacity     | 116          | 36,500 Litres      |  |  |  |  |

**New Staff Quarters** 

Installed total capacity of 36,500 litres. This is equivalent to 365 Nos electric geysers of 2kW capacities. The power saving is estimated to be around 24 Lacs per annum.

# Solar Street Lights in campus







Installed towards staff quarters to Men's hostel road and Architecture block area. This project was done by our III yr. EEE students along with our Estate electrical dept. team.