



CRITERIAN- 7.1.2

The Institution has facilities for alternate sources of energy and energy conservation measures

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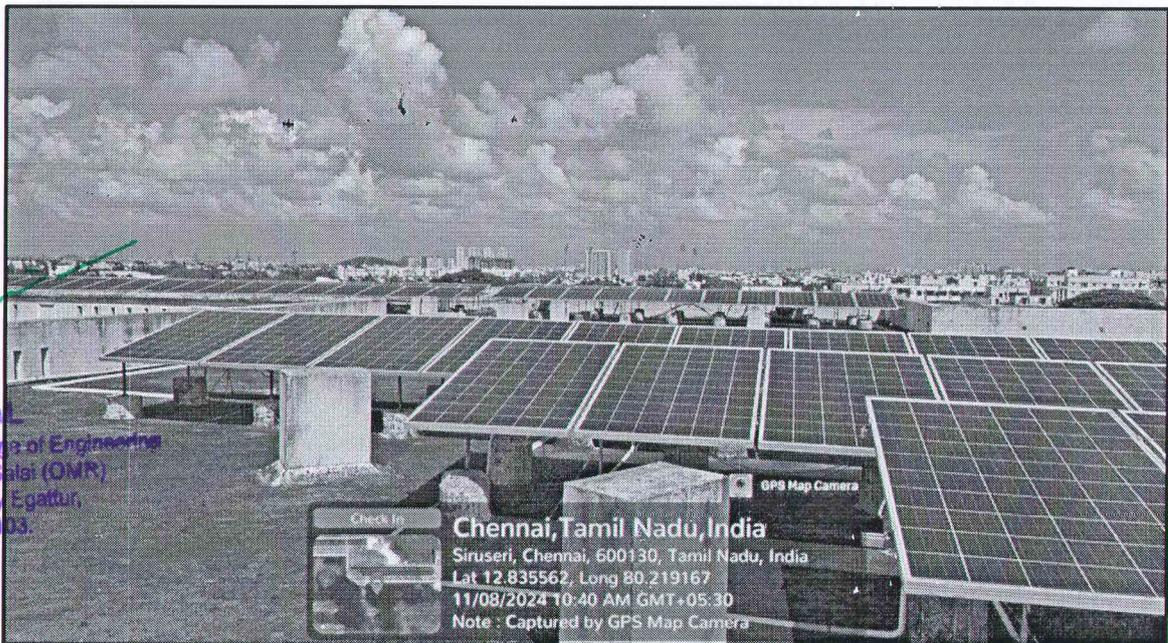
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No.34, Rajiv Gandhi Salai (OMR)
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1.Solar Power Plant

Our institution is committed to environmentally sustainable energy practices. We have installed 50 kW solar panels to generate renewable electricity for our main campus and boys' hostel. The solar-generated power is used to supply electricity to the campus corridors and hostel dining hall.



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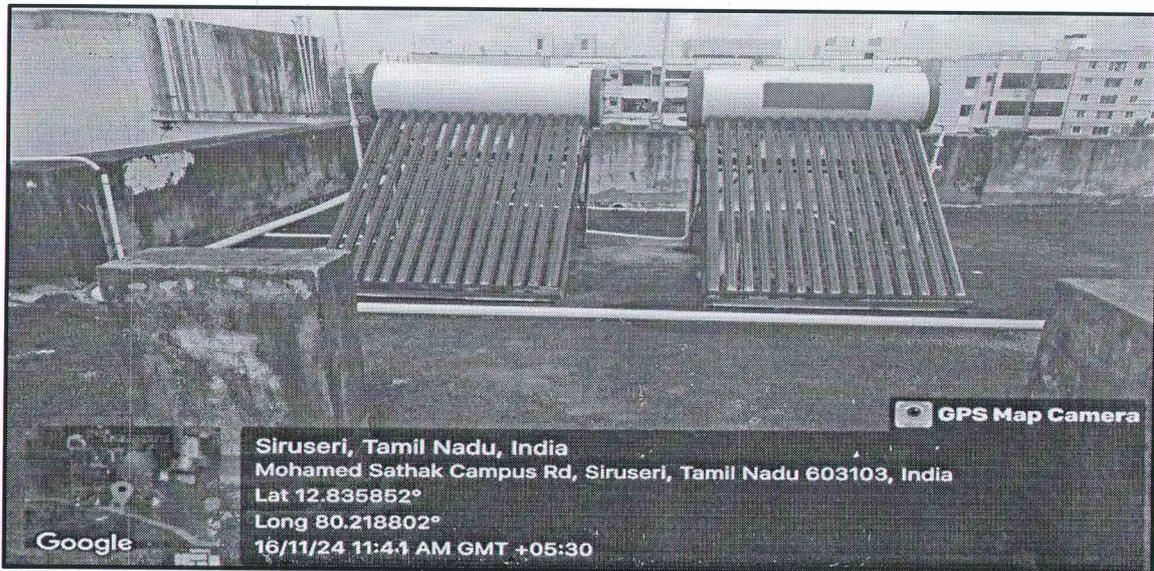
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Solar Panel in Main Building



2. Solar Water Heater

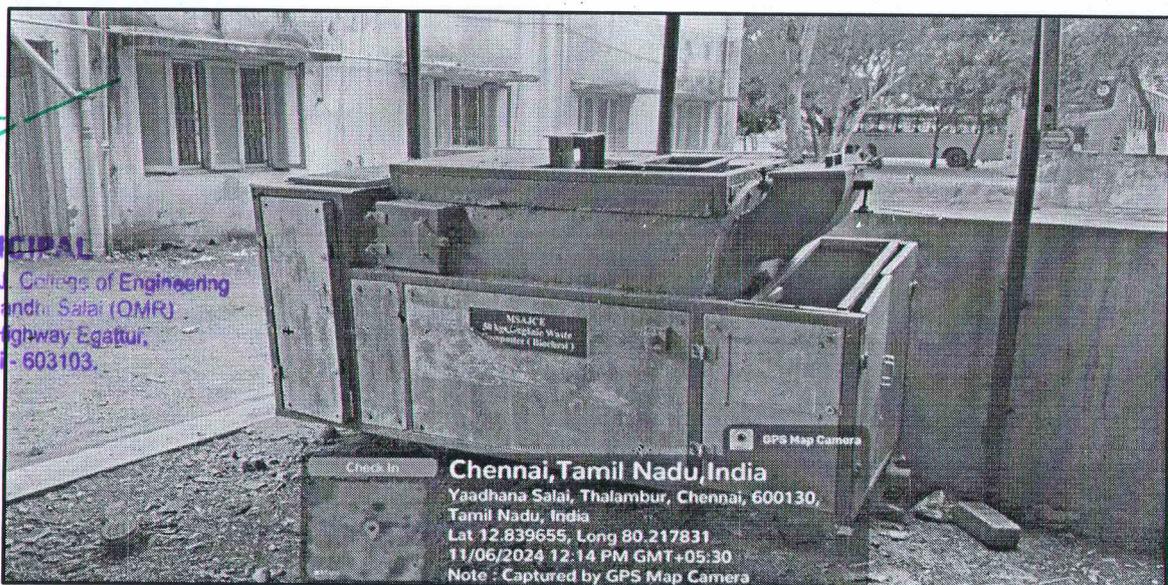
In our college hostel we have two solar water heater plants with capacity of 300 liters. This hot water is used for cleaning the plates and cooking utensils in mess.



Solar Water Heater in Boys Hostel

3. Biogas Plant

Our institution has a 50 kg biogas plant that ferments all the food and organic waste, producing biogas that is then used for cooking in the hostel mess.

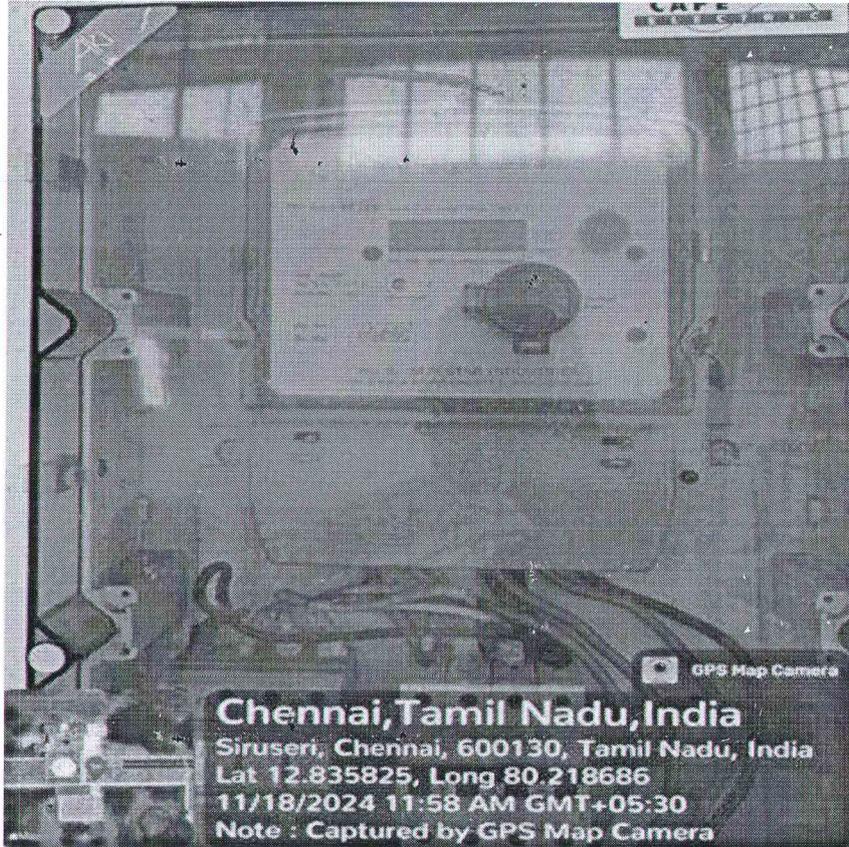


Biogas Plant



4. Wheeling to grid

Our solar plant produces an average of 6,700 kWh of power per month. We use 6,600 kWh to power our main building and export the remaining 100 kWh to the grid.



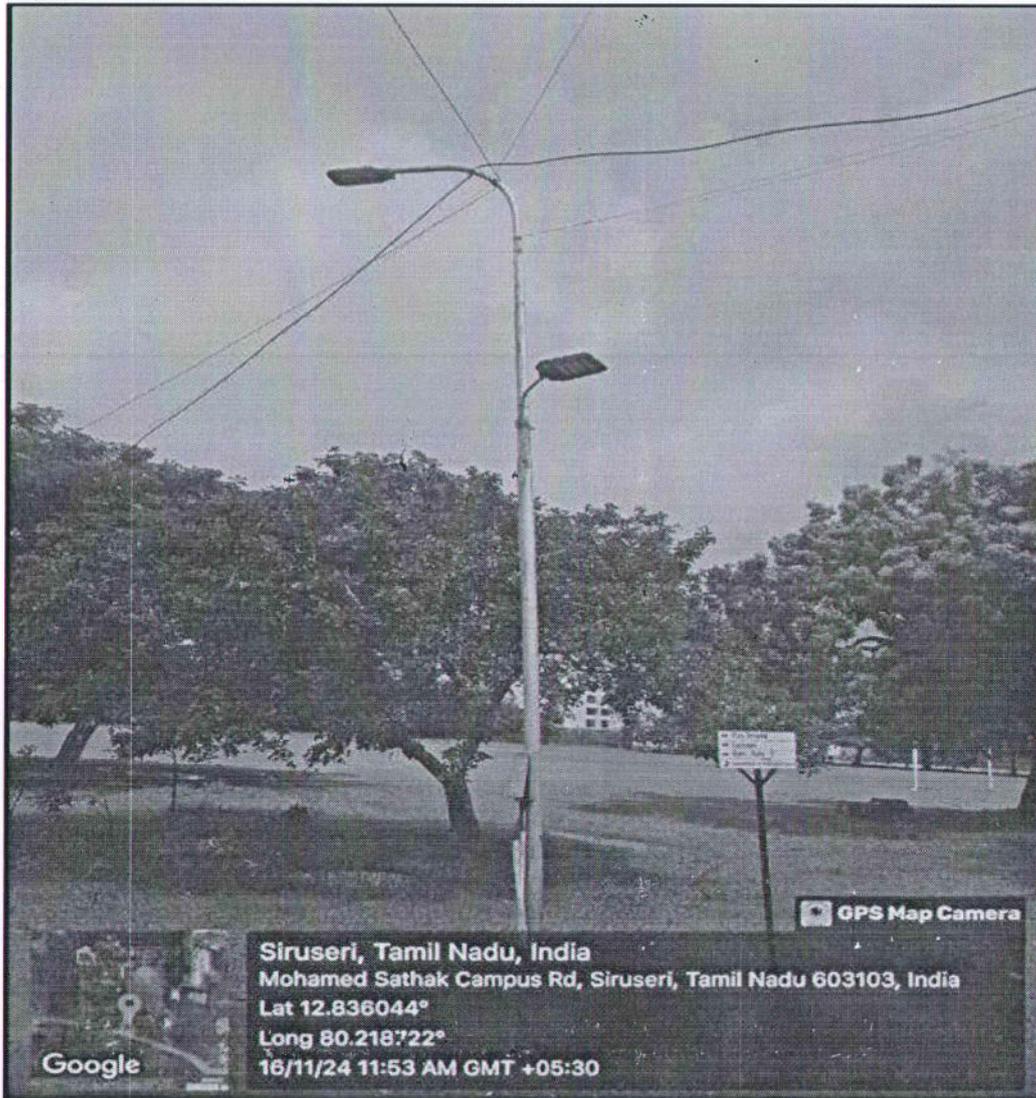
Net Meter for Solar Grid

5. Sensor Based Street Light

Our college has installed sensor-based solar-powered street lights along the main roads on campus. During the day, the lights remain off. At night, they illuminate at 50% brightness when no one is present. However, when motion is detected, the lights will brighten to 100% intensity

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Sensor Based Street Light

6. Sensor Based Lab Automation

The main objective of this project is to develop a lab automation system using an ESP32 board with WI-FI being remotely controlled by any android smartphone with Blynk App, voice controlled using IFTTT and also controlled using IR sensor. As technology is advancing so lab and houses are also getting smarter. Modern houses are gradually shifting from conventional switches to centralized control system, involving remote controlled switches. Presently, conventional wall switches located in different parts of the labs and house makes it difficult for the user to go near them to operate. Remote controlled lab automation system provides a most modern solution with smart phones. In order to achieve this, a WI-FI module is interfaced to the ESP32 board at the receiver end while- on the Transmitter end, a GUI application on the cell phone sends ON/OFF commands to the receiver where loads are connected. By touching the specified location on the GUI, the loads can be turned ON/OFF remotely through this system.

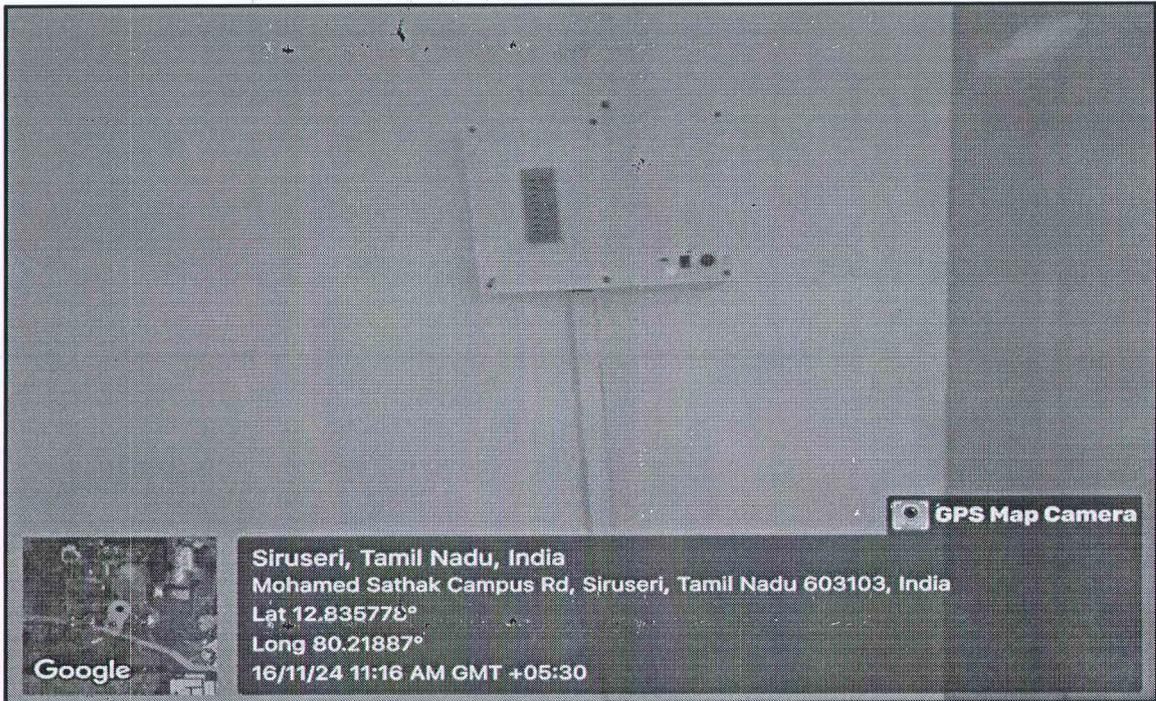
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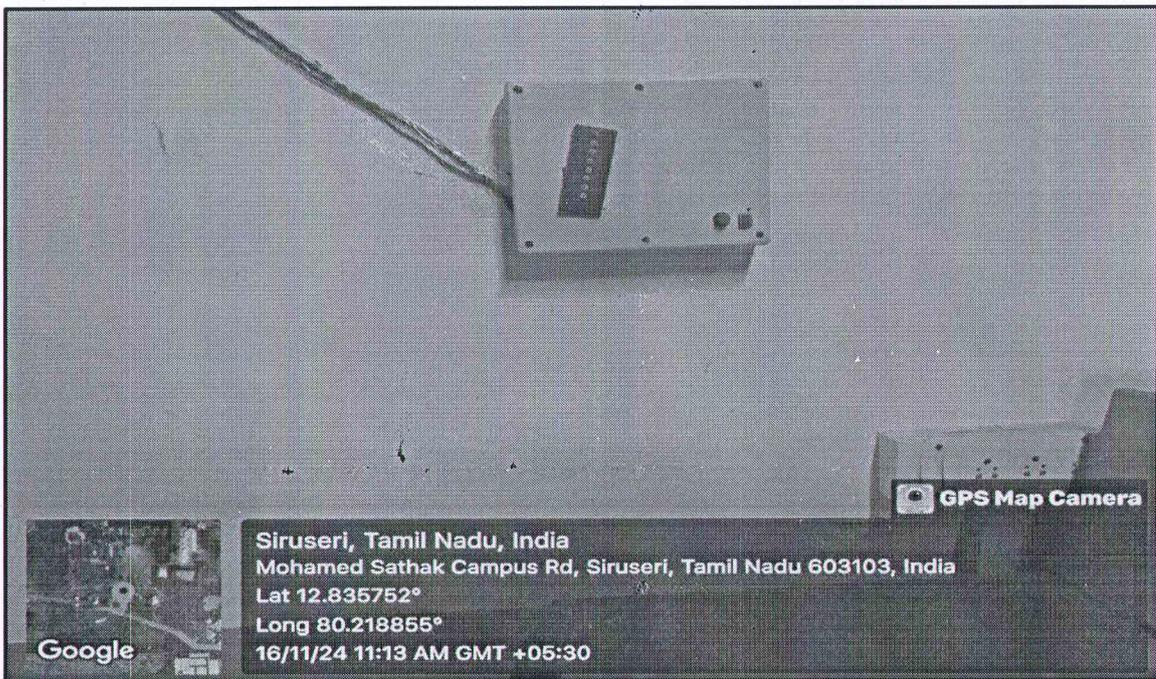
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)



Siruseri, Tamil Nadu, India
Mohamed Sathak Campus Rd, Siruseri, Tamil Nadu 603103, India
Lat 12.835778°
Long 80.21887°
16/11/24 11:16 AM GMT +05:30

GPS Map Camera

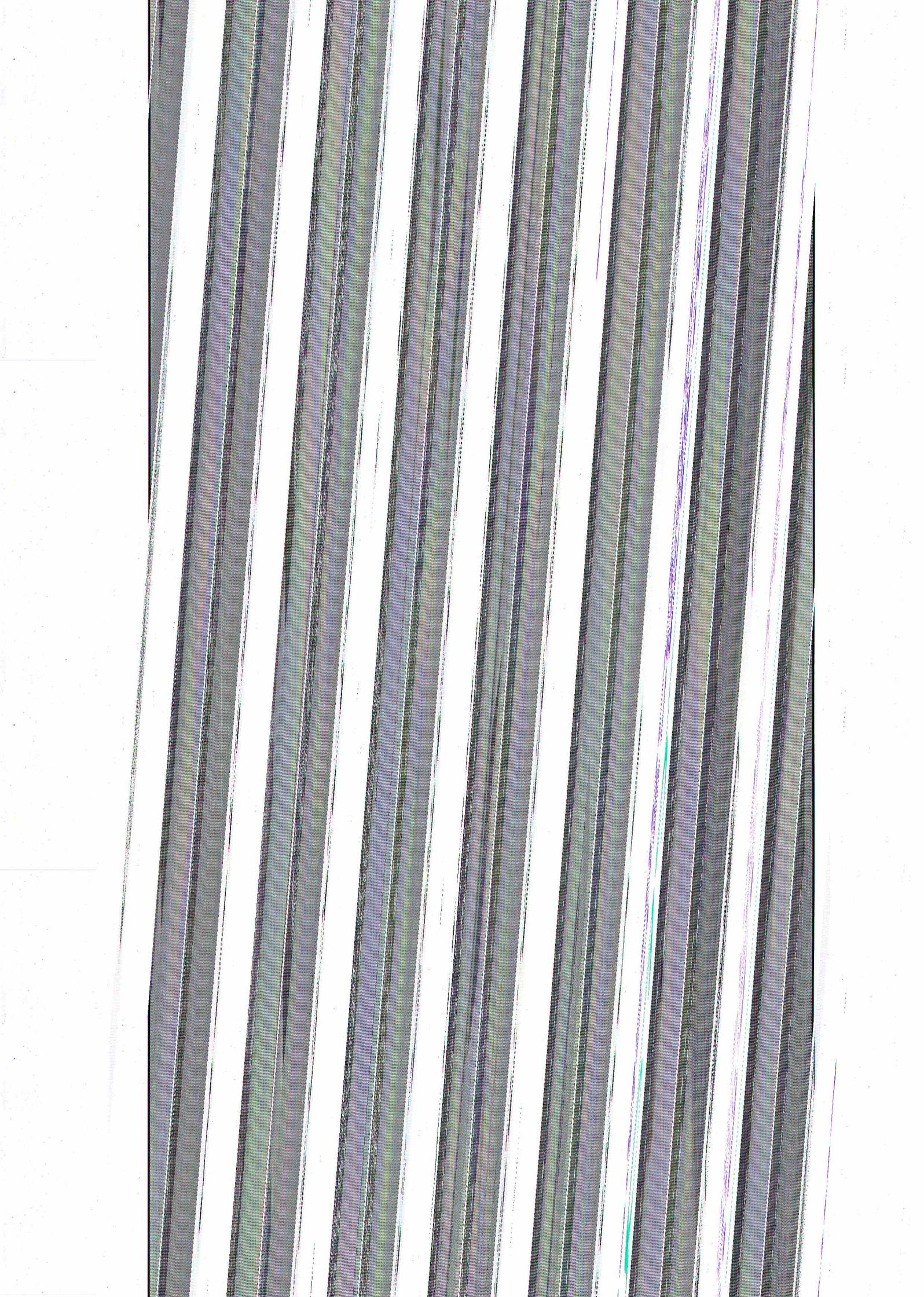


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Lab Automation

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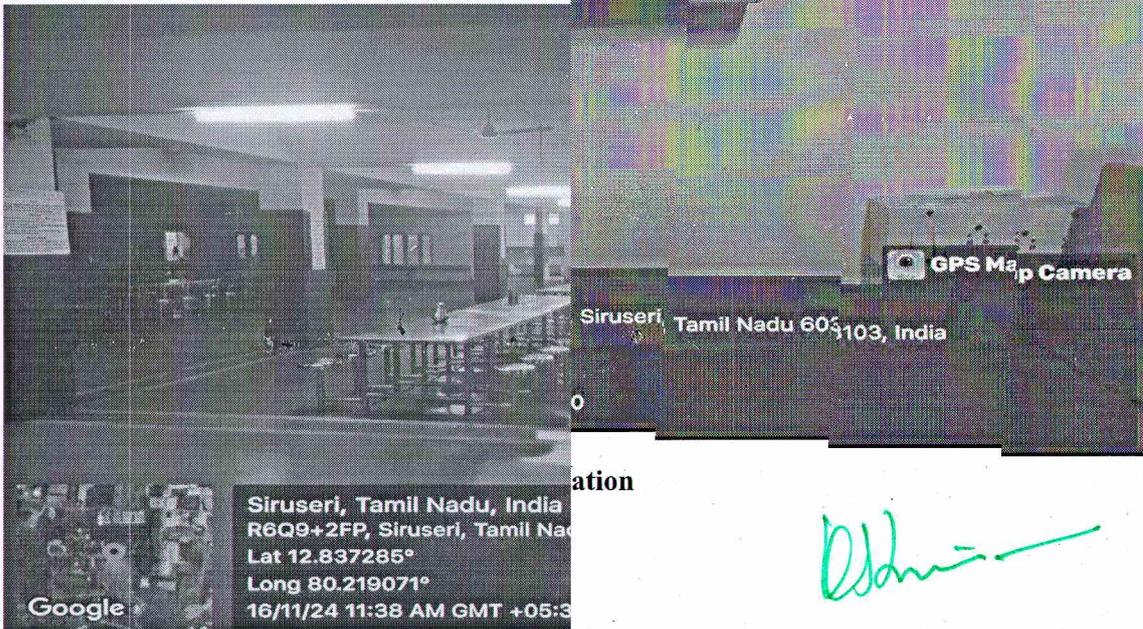
7. Solar Inverter



Solar Inverter

8. Use of Bulbs/ Energy Efficient Device

To ensure minimum power consumption LED bulbs for its maximum requirement. W... compensators used to improve the power factor.



Use of LED

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7. Solar Inverter



Solar Inverter Module

8. Use of Bulbs/ Energy Efficient Device

To ensure minimum power consumption and maximum energy saving, the college utilizes LED bulbs for its maximum requirement. We are using LED street lights and power factor compensators used to improve the power factor.



Use of LED Bulbs in Mess

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