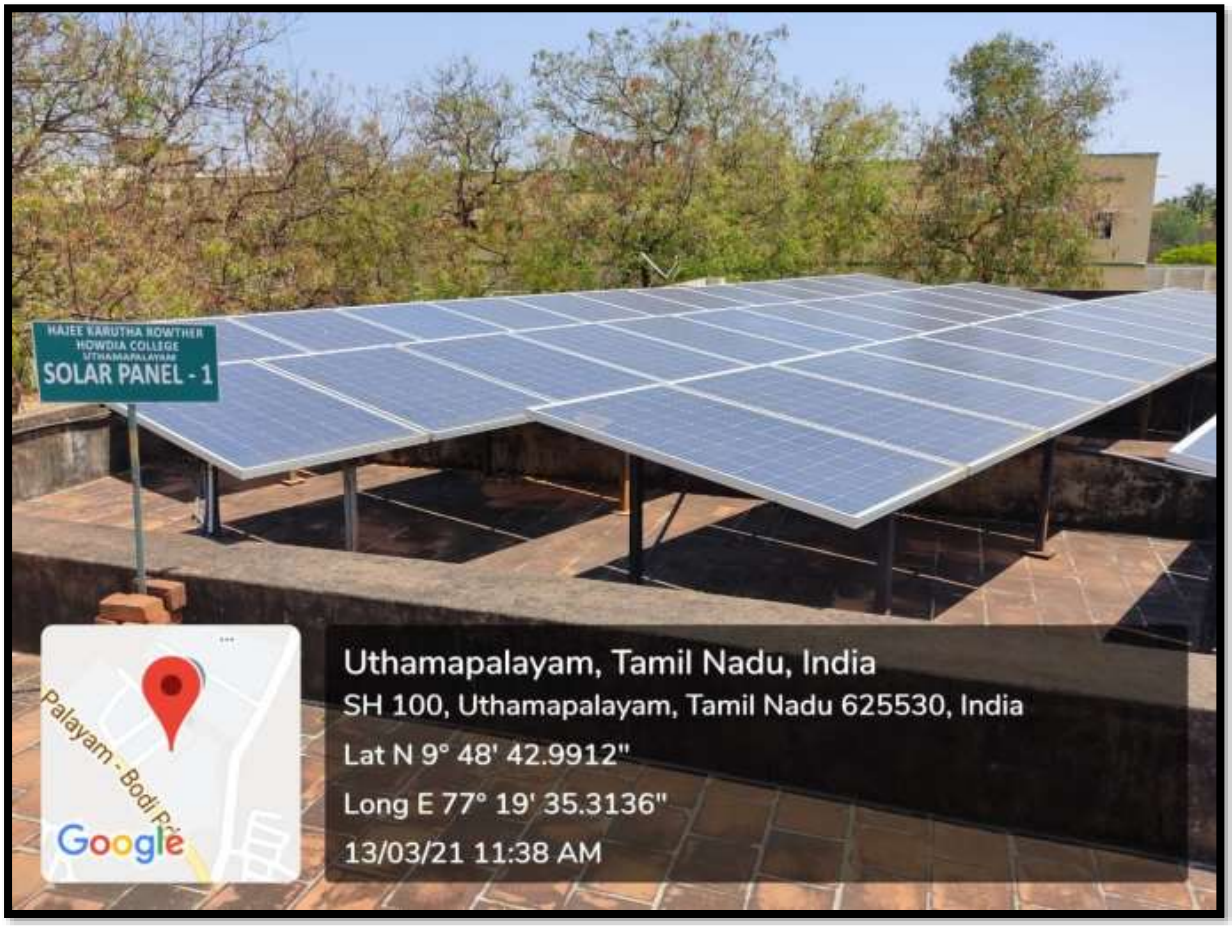
# HAJEE KARUTHA ROWTHER HOWDIA COLLEGE
## (AUTONOMOUS)
## UTHAMAPALAYAM

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

### 1. Solar power plant

- Our college have installed solar power plant in the "top roof of Science Building & MP Building" in the year 2012-13.
- Totally 68 solar panels were placed.
- The installed Capacity of Solar Power Plant is 17 kW.

**Name of the Document: Solar Power plant**



## Name of the Document: Solar Power plant inverter


## 2. Biogas plant

A 1 $m^3$ biogas plant is functioning in the campus for producing biogas using the food waste.

## 4. Wind mill

- Our institution has installed two wind turbines.
- The wind power generated by each turbine of 2.5 kW which will be stored into the battery.
- The battery rating used to store the power is 20 numbers with 12V, 100Ah battery.

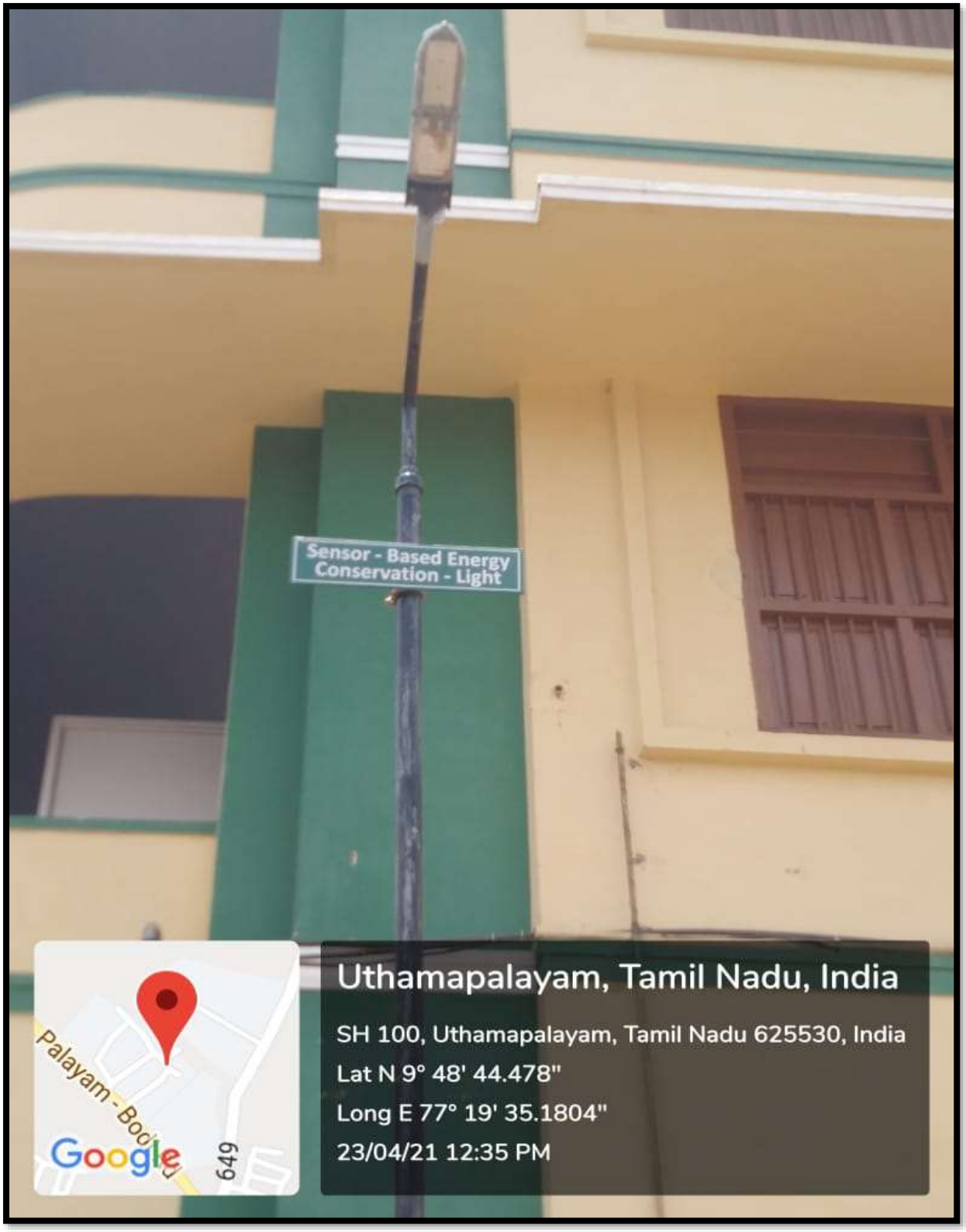
**Name of the Document: Wind mills**

## 4. Sensor-based energy conservation Lights

- Photosensors sense ambient light conditions, making them useful for all types of outdoor lighting.
- Our college have installed 26 photosensors (sensor-based energy conservation lights) in the pathways to prevent outdoor lights from operating during daylight hours.
- This can help save energy because you don't have to remember to turn off your outdoor lights.

**Name of the Document: Photosensors in front of main building**

**Name of the Document:** Photosensors in front of Science building



## 5. Use of LED bulbs/ power efficient equipment

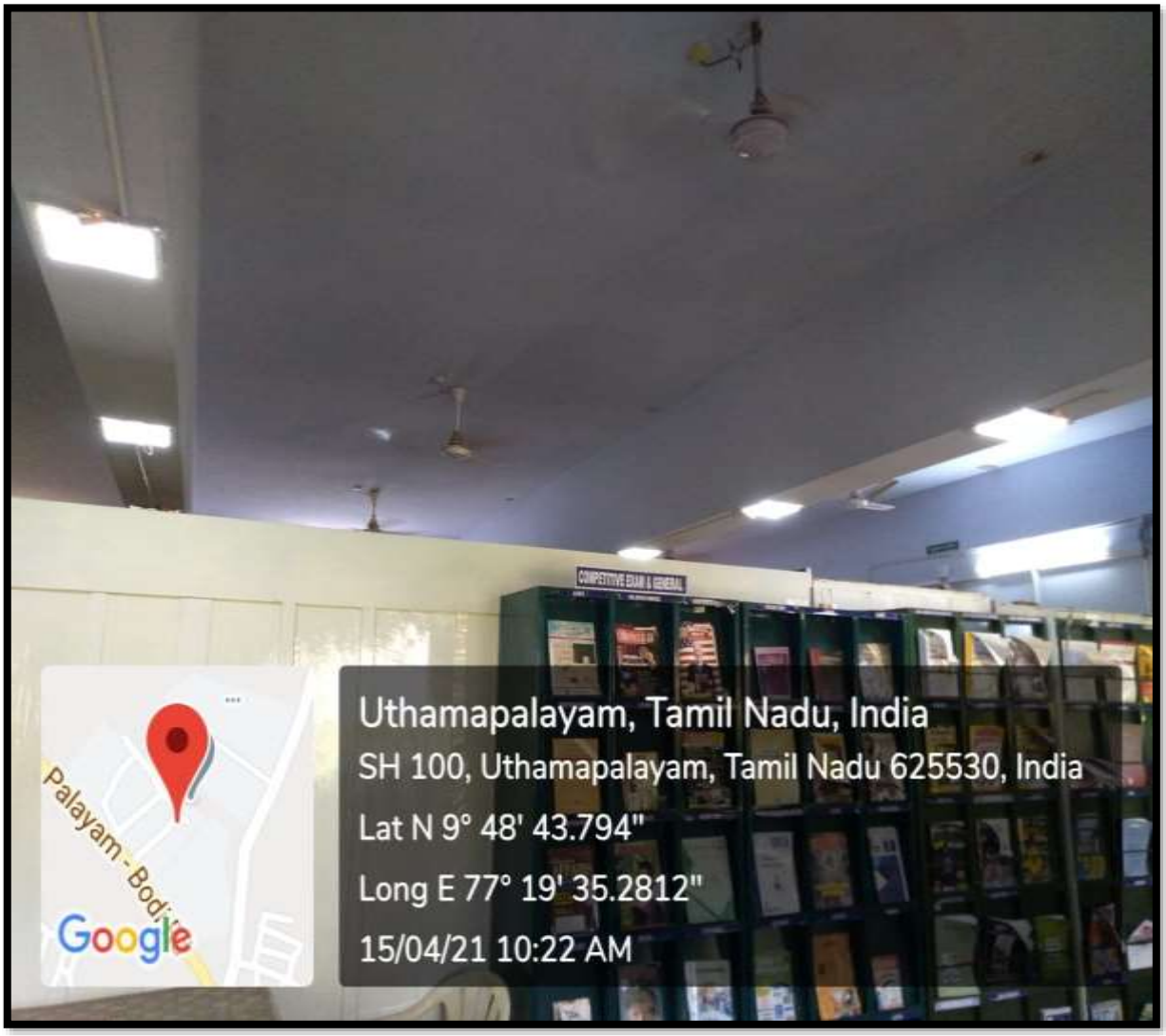
- LED lights consumes 50% less electricity than traditional fluorescent and halogen bulbs, resulting in substantial energy cost savings, especially for spaces with lights that are on for extended periods.
- LEDs also aim light in a specific direction unlike conventional bulbs, which emit light and heat in all directions.
- This directional lighting capability reduces wasted light and energy.
- Our College have conserved 5,346 W electricity by replacing other lights by LED lights.

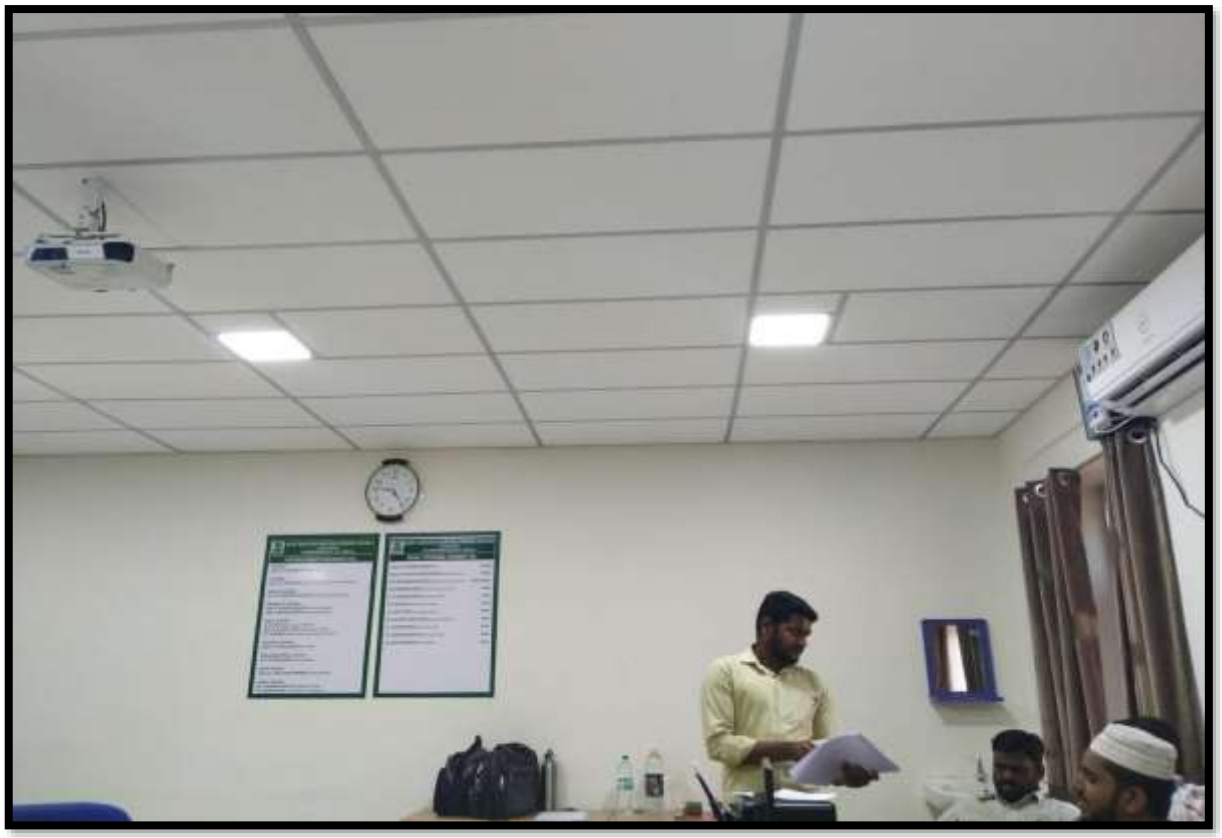
| Year | Total bulbs | Type | No. of bulbs | W/bulb | Total Power requirement in Watt |
|---|---|---|---|---|---|
| 2016-17 | 595 | LED | 130 | 22 | 21,460 |
| | | CFL | 465 | 40 | |
| 2019- 20 | 595 | LED | 427 | 22 | 16,114 |
| | | CFL | 168 | 40 | |

| Location | Floor | No. of Lights | | | |
|---|---|---|---|---|---|
| | | LED | W/ bulb | CFL | W/ bulb |
| Main building | Ground floor | 30 | 22 | 63 | 40 |
| | First floor | 24 | 22 | - | - |
| | Second floor | 17 | 22 | - | - |
| Founders' memorial auditorium | Ground floor | 16 | 22 | 30 | 40 |
| | First floor | 33 | 22 | 37 | 40 |
| Science building | Ground floor | 50 | 22 | - | - |
| | First floor | 34 | 22 | - | - |
| | Second floor | 33 | 22 | - | - |
| Self-finance building | Ground floor | 8 | 22 | - | - |
| | First floor | 10 | 22 | - | - |
| | Second floor | 44 | 22 | - | - |
| Golden jubilee building | Ground floor | 34 | 22 | - | - |
| | First floor | 14 | 22 | - | - |
| | Second floor | 8 | 22 | - | - |
| PG building | Ground floor | 12 | 22 | - | - |

| | | | | | |
|---|---|---|---|---|---|
| | First floor | 11 | 22 | - | - |
| Indoor stadium | Ground floor | 11 | 22 | - | - |
| | First floor | 5 | 22 | - | - |
| Women's Hostel | Ground floor | 6 | 22 | 22 | 40 |
| | First floor | 2 | 22 | 16 | 40 |
| Gym | | 5 | 22 | - | - |
| Street lamps | | 20 | 22 | - | - |

## Name of the Document: LED Bulbs





**Name of the Document: Computer Science Lab with LED monitors**

HAJEE KARUTHA ROWTHER HOWDIA COLLEGE
UTHAMAPALAYAM-625533
THENI-DT
(AUTONOMOUS)

PRINCIPAL
Hajee Karutha Rowther Howdia College
(Autonomous)
UTHAMAPALAYAM-625533.