



## **ALTERNATE SOURCE OF ENERGY AND ENERGY CONSERVATION MEASURES**

The Alternative Energy Sources of Sri Raaja Raajan College of Engineering and Technology is made for proper implementation and efficient utilization of renewable energy sources in such a systematic way so as to minimize its impact on the environment. An alternative Energy source offers the opportunities for student's community to engage in initiatives for contributing to environmental protection.

### **SOLAR ENERGY**

Solar energy is a radiant light and heat from the Sun that is harnessed using a range of technologies such as solar power to generate electricity, solar thermal energy including solar water heating, and solar desalination. It is an essential source of renewable energy, and its technologies are broadly characterized as either passive solar or active solar depending on how they capture and distribute solar energy or convert it into solar power. The large magnitude of solar energy available makes it a highly appealing source of electricity. The potential solar energy that could be used by humans differs from the amount of solar energy present near the surface of the planet because factors such as geography, time variation, cloud cover, and the land available to humans limit the amount of solar energy that we can acquire. A rooftop solar power system, or rooftop PV system, is a photovoltaic (PV) system that has its electricity-generating solar panels mounted on the rooftop of a residential or commercial building or structure.

## SOLAR PANEL

A solar panel is a device that converts sunlight into electricity by using photovoltaic (PV) cells. PV cells are made of materials that generate electrons when exposed to light. The electrons flow through a circuit and produce direct current (DC) electricity, which can be used to power various devices or be stored in batteries. Solar panels are also known as solar cell panels, solar electric panels, or PV modules.



**Solar panel in our college campus**

## SOLAR WATER HEATER

Solar water heaters use natural sun light to heat water. This system works on the thermosiphon principle and is designed to provide hot water without consuming expensive electricity. This is the most effective way to generate hot water thereby saving costly power and is also environment friendly. In our the solar water heater is located in our hostel. The energy generating in this solar water heater is utilized by our college hostel students.



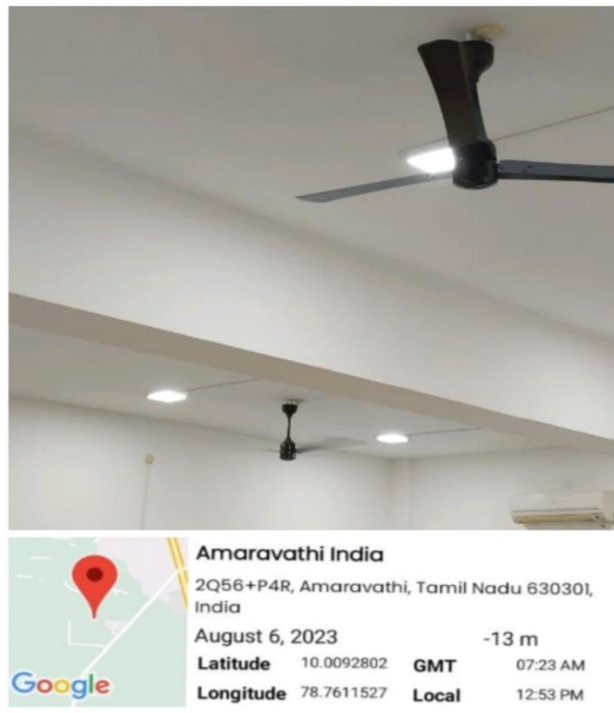
**Solar water heater in our college hostel**



## SOLAR BIKE



## SMART FAN



## LED (Light Emitting diode)

A light emitting diode is a semiconductor device that emits light when current flows through it electrons in the semiconductor recombine with electron holes, releasing energy in the form or photons. In our college campus, every class rooms are placed with LED.



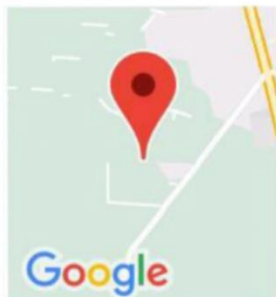
**Amaravathi India**  
2Q56+P4R, Amaravathi, Tamil Nadu 630301, India  
August 6, 2023 -13 m  
**Latitude** 10.0092802 **GMT** 07:23 AM  
**Longitude** 78.7611527 **Local** 12:53 PM

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## SENSOR LIGHT

A sensor is a device that produces an output signal for the purpose of sensing a physical phenomenon. Different types of sensors are available. In our college campus corridor is fully placed with sensor lights.

### Sensor light in our college



#### Amaravathi India

2Q56+P4R, Amaravathi, Tamil Nadu 630301, India

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**Latitude** 10.0092802 **GMT** 07:29 AM

**Longitude** 78.7611527 **Local** 12:59 PM