

7.1.2.2 Facilities in the Institution for the management of degradable and Non-degradable waste

1. Solar Energy
2. Sensor Based Energy Conservation
3. Use of Led Bulbs or Power Efficiency Equipment
4. Bio Gas Plant
5. Policy document

SOLAR ENERGY

Solar energy is produced by the sun's light photovoltaic energy offers many benefits that make it one of the most promising energy

- i. Renewable
- ii. Inexhaustible
- iii. Non-polluting
- iv. Avoids global warming
- v. Reduces use of fossil fuels
- vi. Reduces energy imports

The Ministry of New and Renewable Energy (MNRE) Govt. of India has been promoting the aim to develop and deploy New and Renewable energy for supplementing the energy requirement of the country.

The roof top solar PV power plant of capacity 80KWp had been installed on the roof of the building.

SENSOR-BASED ENERGY CONSERVATION

T.J.S Engineering College is using the equipments which are saving energy, using Sensor based solar street light are available in the college. Measures taken to conserve energy and utilize alternate source of energy.





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USE OF LED BULBS/POWER EFFICIENT EQUIPMENT

- LED bulbs are filled with required energy and can use up to 80% less power when compared to incandescent light bulbs. They are highly efficient. LED bulbs are used in various places in the college for achieving proper lightings.
- They are placed in large quantities in seminar halls, faculty cabins and at places wherever necessary. Street lightings are provided along the pathways to illuminate the surroundings.
- LED lights are fitted on to the roofs of Placement, seminar halls and onto the various places. All the lights are self-illuminated.




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Civil

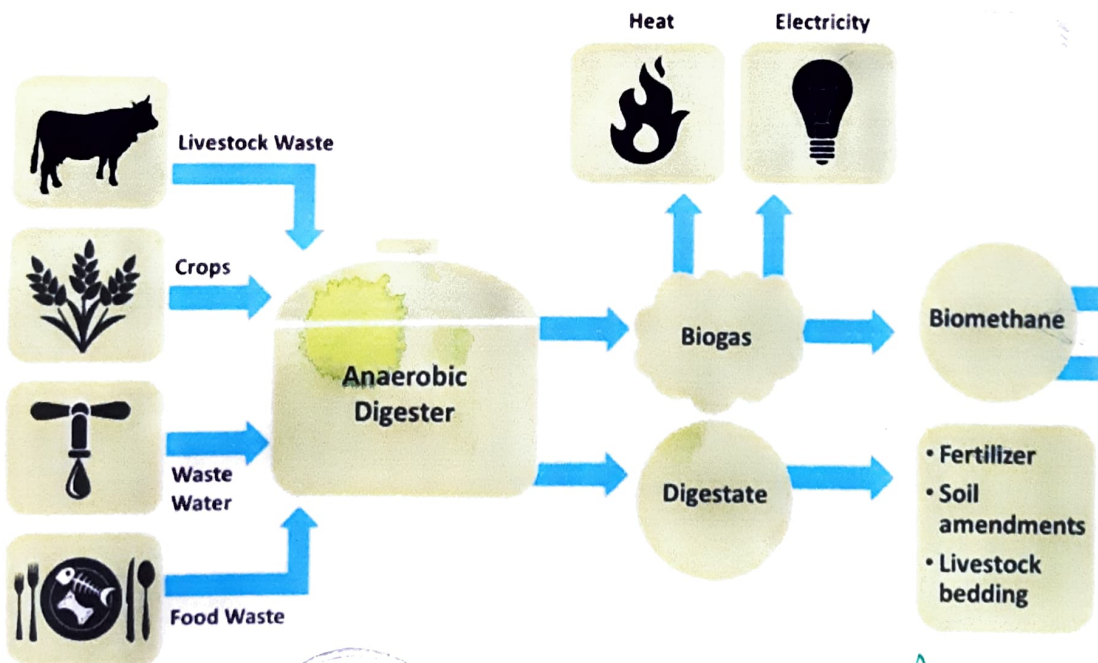
BIOGAS PLANT

In TJS College, kitchen waste is used to generate thermal energy for cooking and heating. The biogas produced from food waste, decomposable organic material, and kitchen waste, consisting of methane and a little amount of carbon dioxide is an alternative fuel for cooking gas (LPG).

Kitchen waste is processed and moistened to produce a suspension that subsequently undergoes a fermentation process. Fermentation produces biogas – a valuable energy source – that is desulphurised by biological means. Also, the waste materials can be disposed of efficiently without any odour or flies and the digested slurry from the bio-gas unit can be used as organic manure in the garden.

The major components of the bio-gas plant are a digester tank, an inlet for feeding the kitchen waste, a gas holder tank, an outlet for the digested slurry, and the gas delivery system for taking out and utilizing the produced gas.


The College campus is equipped With 1m³ Capacity Biogas Plant to promote the use of alternate energy. Eco-friendly technology allows to produce renewable natural gas in the form of bio methane. The facility processes about 30kg of kitchen waste every day. The major waste is organic waste from College hostels, as well as leftover food from campus canteens and expired food.



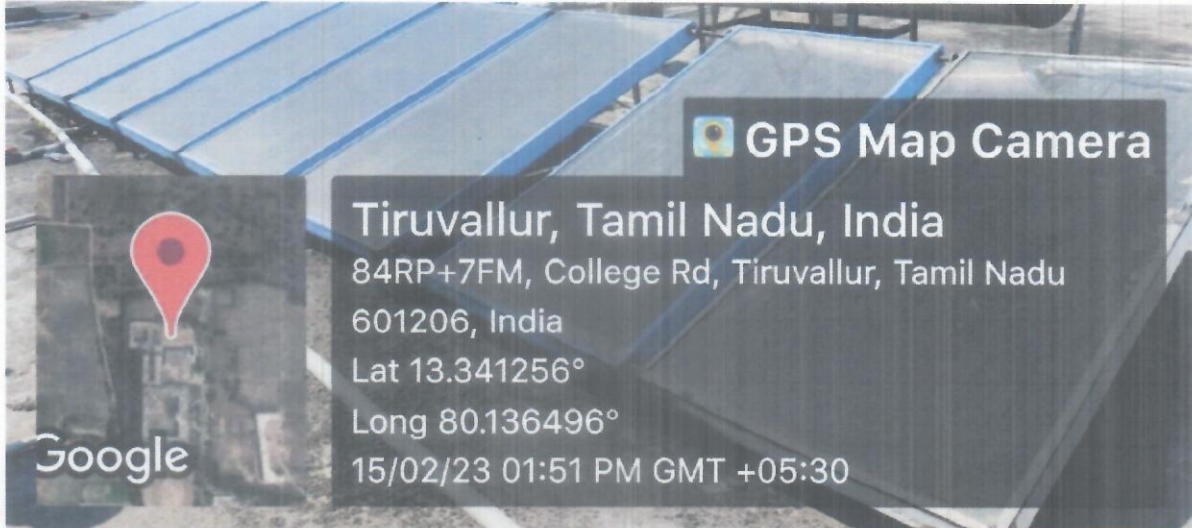
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GEO TAGGED PHOTO




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FACILITIES FOR ALTERNATE SOURCES OF ENERGY



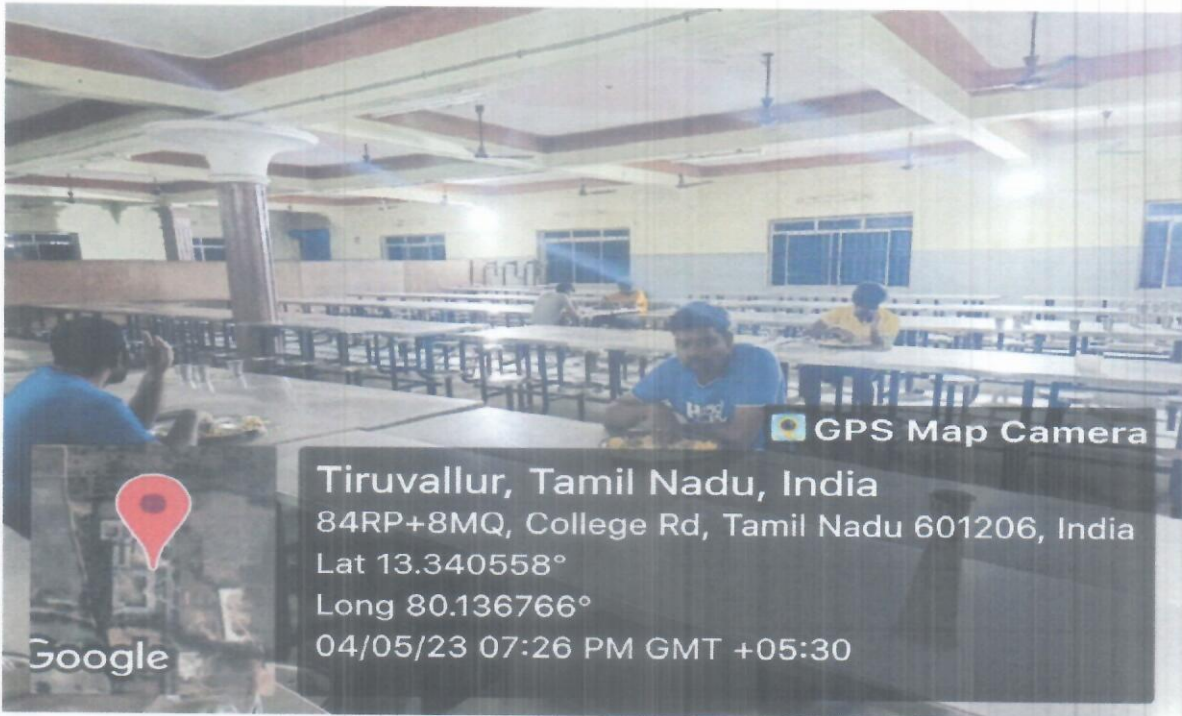
SOLAR ENERGY



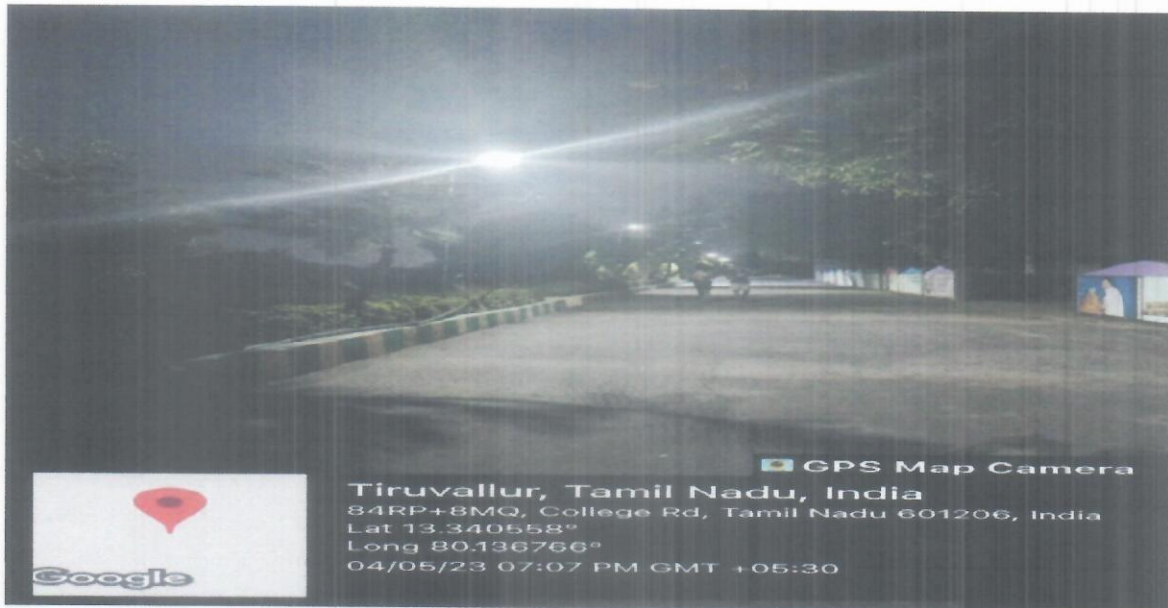
LED BULBS IN PLACEMENT HALL




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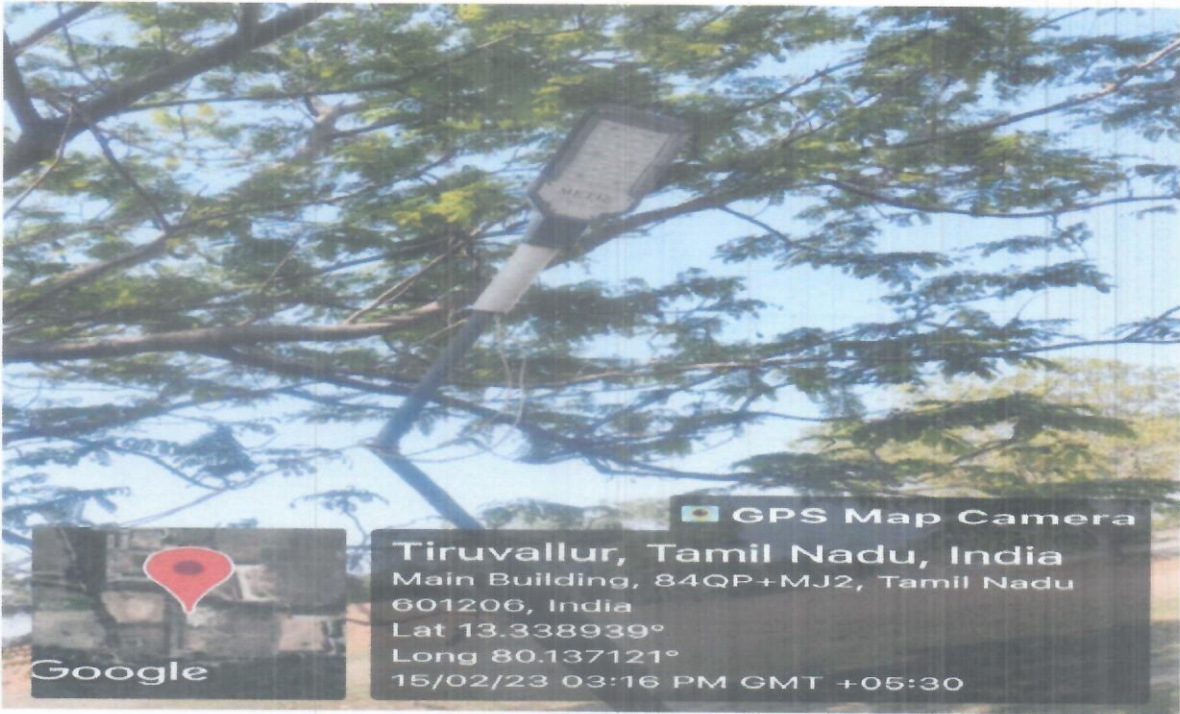
LED BULBS IN CANTEEN AREA



SENSOR BASED STREET LIGHT SYSTEM – LED BULBS




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SENSOR BASED AUTOMATIC STREET LIGHT SYSTEM – LED BULBS



SENSOR BASED AUTOMATIC STREET LIGHT SYSTEM – CONTROL PANEL




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