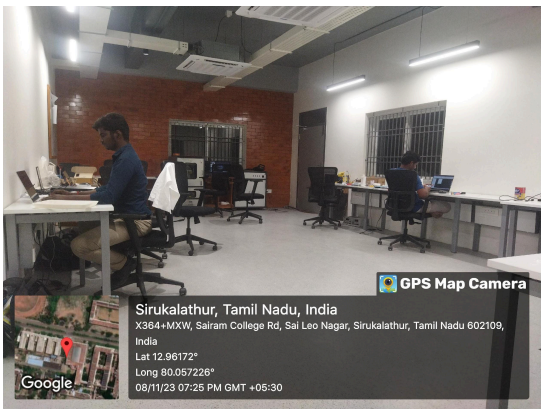
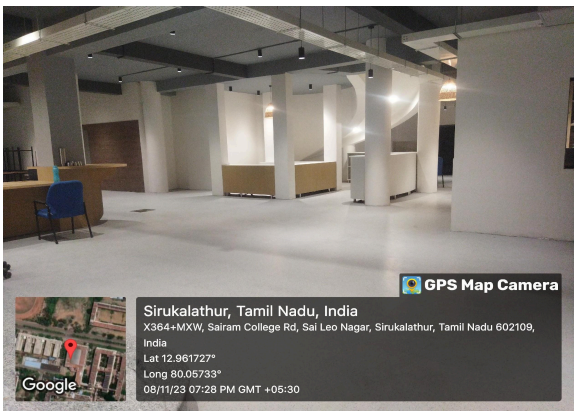
1. SOLAR PANELS

Solar panel survey has been carried out and details as follows:

Name of the block	SEC (All the blocks in the College)
Wattage of each panel, W	275
Total Capacity, kW	620
Availability of Net Metering	Yes

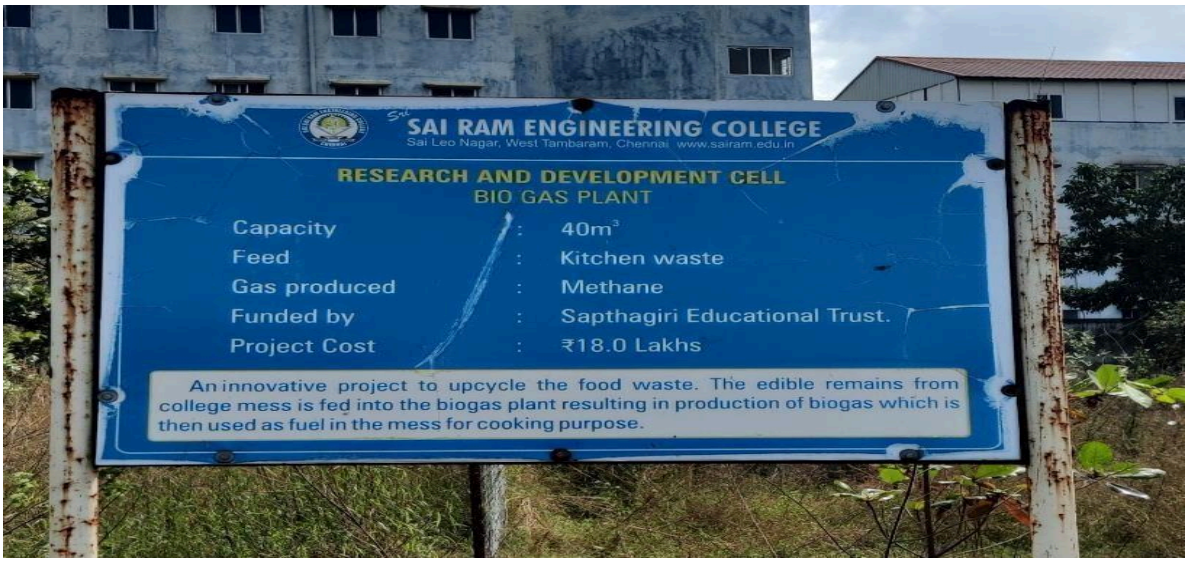
In nearby future we planned to utilize our needs through solar





2. Biogas plant

Biogas plants rely on anaerobic digestion, a fermentation process in which waste is digested by microbes to produce methane gas (biogas).



In this method is fixed dome type, the gas produced through this method is used for cooking purposes.

3. CARBON FOOTPRINT & OFFSETTING

The following table summarizes the CO2 emission through various Consumption activities in our campus

3.1 CARBON OFFSETTING

The following effective measures are followed to reduce the present Carbon footprint value.

a. Human Factors

- ❖ Disseminated knowledge on Carbon footprint by creating awareness about sustainable Development Goals.
- ❖ Rampant consumerism was avoided.

b. Transportation

- ❖ Usage of Bicycles are encouraged within the campus.
- ❖ Battery cars are used inside the campus.
- ❖ Planning to use energy efficient fuels for transportation, especially in the case of college buses.

- Vehicles adhering to emission norms are used.
- Purchased vehicles with competitive mileage & fuel efficiency.
- Car-pooling system is encouraged.
- Installation of proper inflation of vehicle tires.
- Promotion of Cycling: The college recognizes that the Earth is protected through the practice of cycling by masses. The college organized a „CYCLOTHON – moving towards a better living". The event witnessed a huge turn-out and in-turn spread awareness amongst students about the same.
- Reduced use of petroleum products.
- Encouraging the drivers to maintain optimum speed of vehicles to reduce carbon Emission

c. Electricity:

- Used LEDs instead of conventional light sources for efficient use of Electricity.
- Insisted to Use the 'OFF' switch, rather than the 'STAND BY' mode in all electrical equipments
- Insisted to switch off fans & lights when not in use.
- Green Tags were checked before purchasing goods.
- Air Conditioning should be minimally used.
- Solar power was used for efficient energy usage.

d. Solid Waste:

- Digitalized our documentation process to reduce usage of paper.
- Avoided burning of paper waste.
- Adopted Waste management techniques for Recycling waste.
- Effective Reuse of resources were followed.

e. Production & Consumption Of Food

- Encouraged students and faculty to minimize wastage of food items.
- Reduced wastage of vegetables and groceries in the kitchen.
- Encouraged usage of organic foods.

f. LPG Usage

- Efficient usage of LPG
- Planned to use Biogas made from biodegradable waste.

g. BUILDINGS

- ❖ Eco friendly construction materials with low emission coefficient were used
- ❖ Sufficient green cover provided for all buildings in the campus
- ❖ Regular plantation of tree saplings by student volunteers
- ❖ Avoided cutting down of trees

3.2 Carbon Adsorption by flora in the Institution

Carbon absorption capacity of one matured tree = 6.8 of CO_2. In bushes it absorbs an average of 200 g of CO2. The carbon absorption capacity of a 10-sq.ft. area of lawn is 1 g CO_2.

1. Therefore, the carbon absorption capacity of 2326 matured trees in the campus of the Institution (2326 × 6.8 kg CO_2) = 15816.8 kg of CO_2.

3.3 CO2 REDUCTION MEASURES:

3.3.1 Replacing Non – LED light with LED Implementation

The Institution using FTL (Florescent Tube Lights) for the lighting purpose by replacing it with LED tubes/ lamps the institution will save up to103200 kWh savings per annum which means 41.9 Ton of CO2 reduction is possible.

Utility	Actual Consumption, kWh /Annum	Projected savings, kWh/Annum
18 W LED	1,77,000	106264

3.3.2 Replacing existing conventional ceiling fans with Energy efficient gorilla fans

The Institution using Conventional ceiling fans for the ventilation purpose by replacing it with energy efficient gorilla fans, the institution will save up to 68,083 kWh savings per annum which means 54.25 Ton of CO2 reduction is possible.

Utility	Actual Consumption, kWh/Annum	Projected savings, kWh/Annum
28 W (BLDC)Ceiling fan	63589	71,218

3.3.3 Replace existing 1.5 TR Window AC with 1.5 TR 5 - star Invertor split AC

The Institution using 1.5 TR window AC for the Indoor ventilation purpose by replacing it with 1.5 TR 5 Star Invertor split AC, the institution will save up to 9,450 kWh savings per annum which means 8.03 Ton of CO2 reduction is possible.

Utility	Actual Consumption, kWh/Annum	Projected savings, kWh/Annum
2 TR WindowAC	69,345	10,460

3.3.4 Replace existing 1.5 TR Window AC with 1.5 TR 5 - star Invertor split AC

The Institution using 1.5 TR split AC for the Indoor ventilation purpose by replacing it with 1.5 TR 5 Star Invertor split AC, the institution will save up to 33,120 kWh savings per annum which means 28.15 Ton of CO2 reduction is possible.

Utility	Actual Consumption, kWh/Annul	Projected savings, kWh/Annum
2 TR Split AC	2,82,772	35,564

The following table illustrates the total quantity of CO2 reduced through various measures,

Energy Saving measures	CO2 reduction, Tons/Annum
Replace existing Tube light to LED	224.06
Replace existing inefficient conventional fans (60W) with Energy efficient fans	92.77
Replace existing 2 TR Window AC with 2 TR 5 - star Inverter split AC	11.24
Replace existing 2 TR Split AC with 2 TR 5 - star Inverter split AC	33.76
Total	**361.83**