

**GOVERNMENT COLLEGE OF ENGINEERING, SALEM**



**BEST PRACTICE – 2**

**CLEAN AND GREEN ENERGY**

## **7.2.1 INSTITUTIONAL VALUES AND BEST PRACTICES**

### **Best Practice 2**

#### **Clean and Green Campus Initiatives:**

##### **Solid waste Management:**

##### **Comprehensive Solid Waste Management Approach:**

The institution employs a strategic solid waste management system that aligns with Sustainable Development Goal (SDG) 11: Sustainable Cities and Communities, and SDG 12: Responsible Consumption and Production, featuring several composting pits. The compost generated from these pits is utilized as an organic fertilizer for gardening plants available in each department. This practice extends to the trees and plants in nearby villages during activities carried out by NSS units, thereby supporting SDG 15: Life on Land by promoting sustainable use of terrestrial ecosystems. This not only recycles waste effectively but also contributes to the lush, green landscape of our institution, enhancing its contribution to SDG 13: Climate Action by reducing waste and promoting sustainability practices. Additionally, the collection of food waste from the hostels and its provision to a vendor for feeding cattle supports SDG 2: Zero Hunger, by contributing to sustainable food production systems and implementing resilient agricultural practices.

##### **Efficient Solid Waste Collection Mechanism:**

The Campus Solid Waste Management program segregates and recycles various wastes, including organic, paper, plastics, and e-waste, aligning with the Swachh Bharat initiative. Waste is categorized into degradable and non-degradable, then handed over to Salem Municipal Corporation. To efficiently manage waste, large dustbins are placed across the campus for daily waste collection, with local authorities responsible for their regular clearance.

##### **Innovative Efforts to Reduce Plastic Usage:**

In a proactive move to reduce the consumption of plastics, the banners and signboards have been put up at various places. To promote responsible waste disposal practices, various awareness programmes on solid waste management were conducted. On occasions, tea is served either in stainless steel cups or ceramic cups, to avoid plastics. One day awareness program on single use is conducted at

**17-october 2019**

## **Liquid waste Management:**

### **Liquid Waste Management Overview:**

The institute collects and treats wastewater in two oxidation ponds. This process efficiently manages liquid waste.

### **Treatment with Oxidation Ponds:**

Two oxidation ponds are used for wastewater treatment, enhancing the cleaning process through biological means. These ponds naturally facilitate the biological breakdown of pollutants.

### **Evaporation and Sludge Management:**

Water evaporates from ponds, concentrating sludge, which is removed as needed to maintain treatment efficiency.

### **Eco-friendly Wastewater Strategy:**

This method is environmentally friendly, using natural processes for wastewater treatment and emphasizing sustainability.

## **E-waste management:**

E-wastes are generated from computer laboratories, electronic labs, and Administrative Offices.

### **Segregation and Storage:**

Effectively segregates and stores all electronic waste, including unused computers and accessories, ensuring proper handling.

Buy-Back policy is preferred for instead of a new procurement.

As part of measures in e-waste management, we educate the students the importance of recycling and reusing electronic components by transforming waste materials into creative and functional models.

our students demonstrated this commitment by creating models.

### **Government Protocol Compliance:**

Condemnation of e-waste campus wide takes place which ensures minimizing environmental impact and ensuring responsible handling.

Students are also made aware of E-Waste issues and its safe disposal.

### **Waste recycling System:**

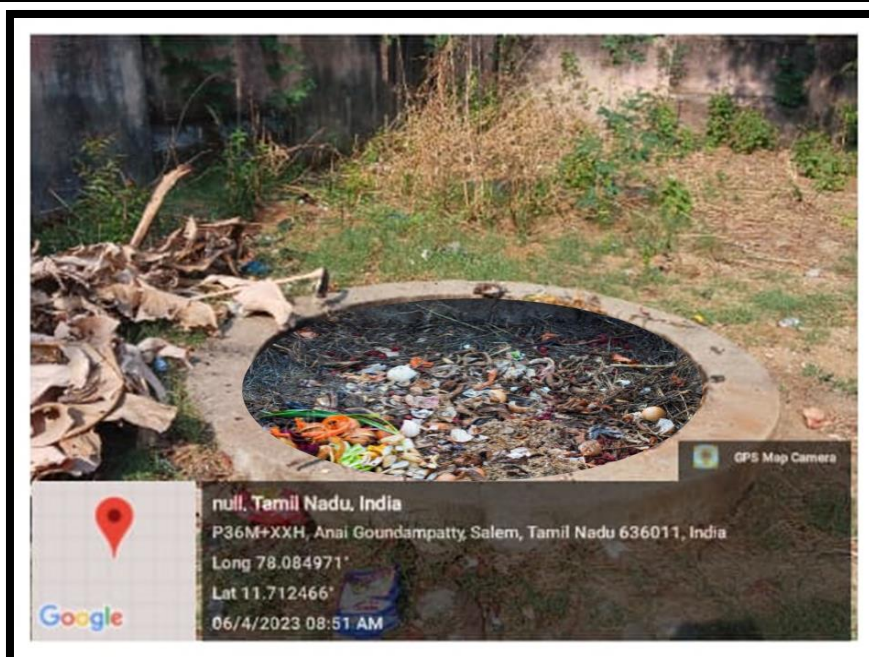
- Composting pits converts bio-degradable waste into fertilizer.
- Natural oxidation pond, where through natural evaporation, separating sludge and water supporting natural ecosystems.

**Facilities in the Institution for the management of the following types of degradable and non-degradable waste.**

#### **Solid waste Management - Compost pit**



#### **Solid waste Management - Compost pit**





### **Solid waste Management - Compost pit**



### **Solid waste Management – Collecting Hostel Food Waste**



## Solid waste Management – Collecting Hostel Food Waste

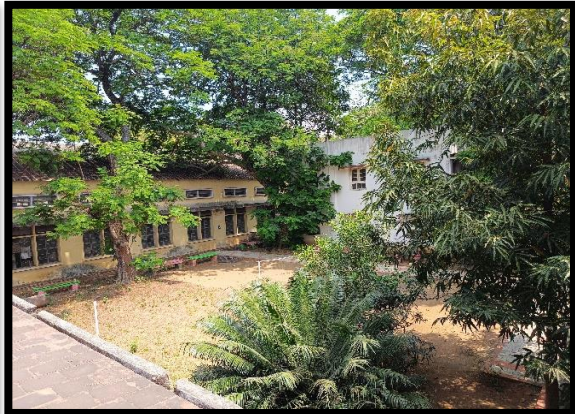


## Dustbin at Quarters

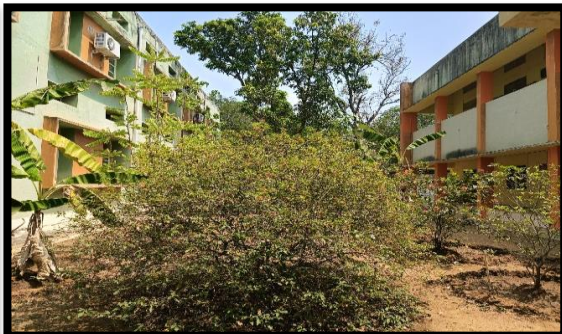




**Garden at Mechanical Department – Uses manures from Composting Pit**

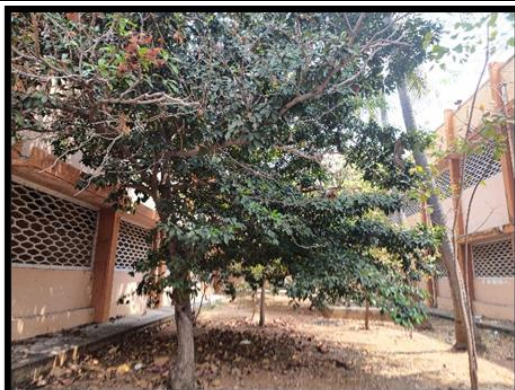


**Garden at EEE & CSE – Uses manures from Composting Pit**





**Garden at ECE Department – Uses manures from Composting Pit**



**Garden at Civil Department – Uses manures from Composting Pit**





**Garden at Metallurgical Department – Uses manures from Composting Pit**



**Sign board to reduce plastic usage**





**Swachhata Hi Seva -2019, Plastic waste free campaign**



**One Day Awareness programme on single use plastics**





## Awareness on Solid Waste Management



## Awareness of using cloth bags in place of plastic bags





### Sign board to reduce plastic usage



Admin of GCE  
Karuppur 636011  
TN  
India  
Periyar Palkalai Nagar  
03-Feb-2024 at 1:36:15 PM

### Liquid waste management - Oxidation Pond



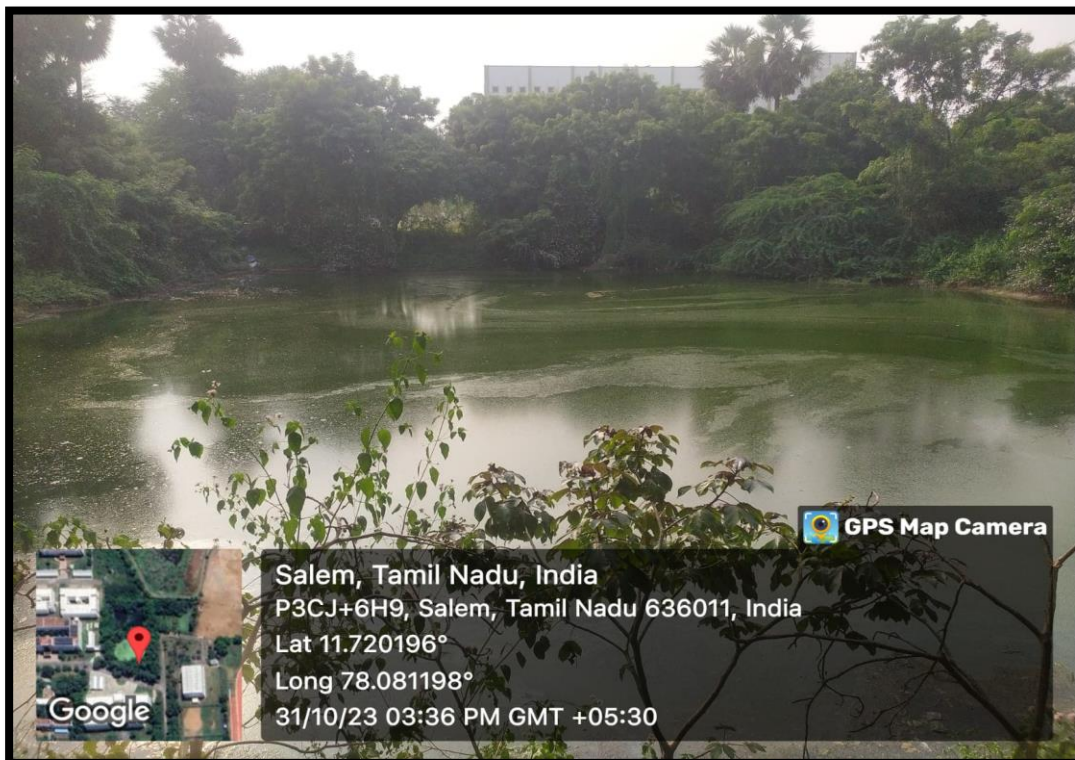
GPS Map Camera



Salem, Tamil Nadu, India  
P3CJ+6H9, Salem, Tamil Nadu 636011, India  
Lat 11.720075°  
Long 78.081241°  
31/10/23 03:37 PM GMT +05:30



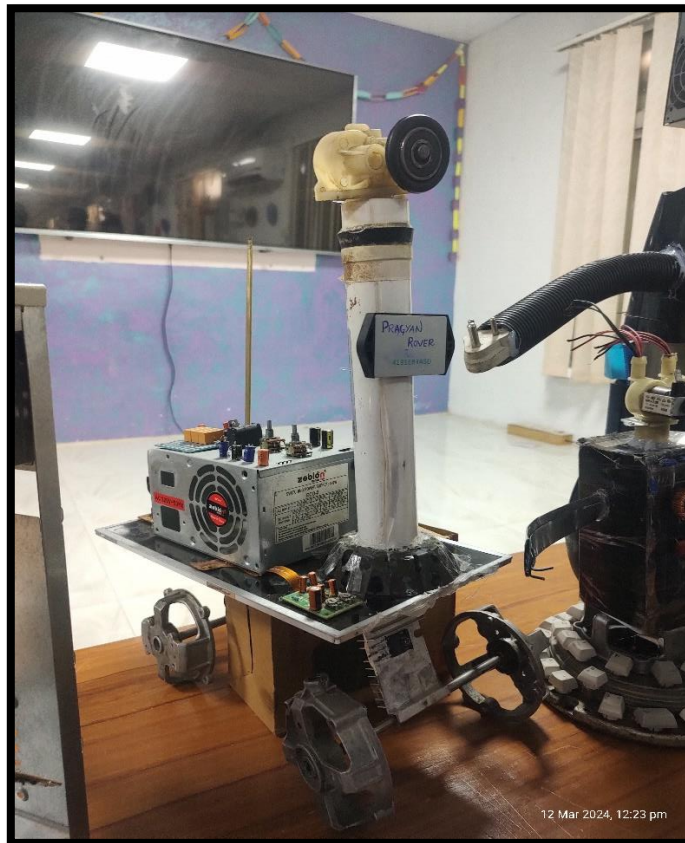
## Liquid waste management - Oxidation Pond



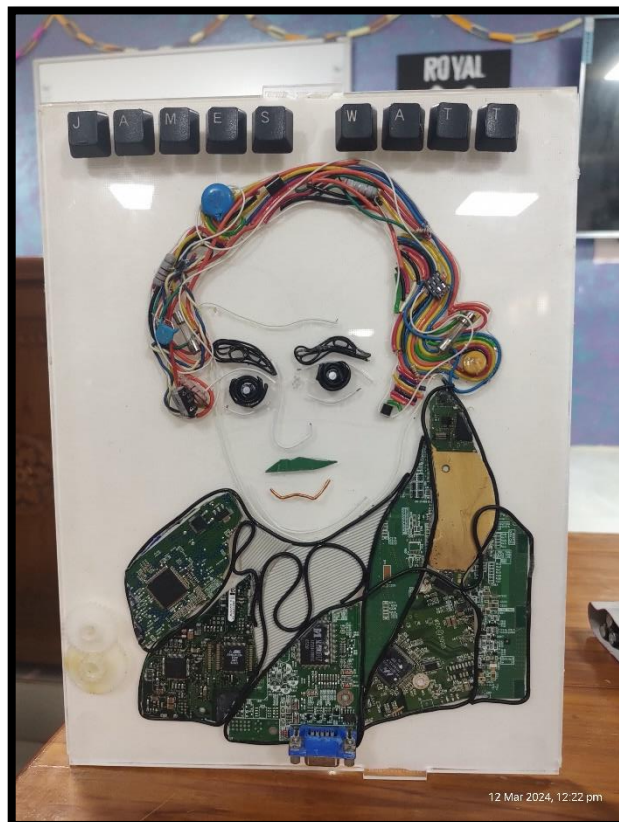
## Hazardous chemicals and radioactive waste management



## **E-waste management – Project on Reuse of E waste Rover Model**



## **E-waste management – Project on Reuse of E waste**





**E-waste management – Project on Reuse of E waste  
Satellite Model**



**E-waste management – Project on Reuse of E waste  
Robot**



## **E-waste management – Project on Reuse of E waste**



## **E-waste management – Recognition to exceptional Projects by Chief Guest Dr.R.Vijayan, Principal GCE Bargur**





**E-waste management – Recognition to exceptional Projects by Chief Guest Dr.R.Vijayan, Principal GCE Bargur**



**E-waste management – Recognition to exceptional Projects by Chief Guest Dr.R.Vijayan, Principal GCE Bargur**



### **Alternate Energy Sources - Solar Street Lighting**

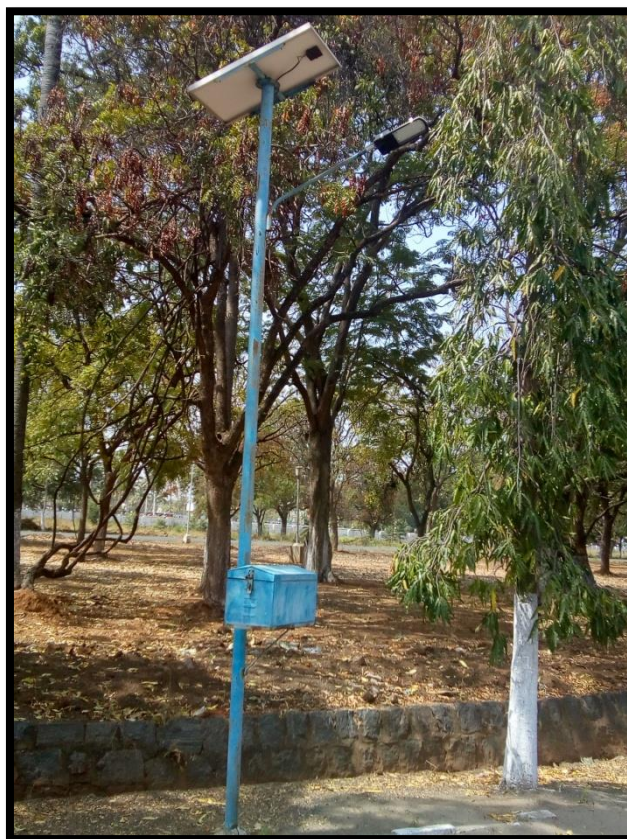


### **Alternate Energy Sources - Solar Street Lighting**





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