(Autonomous), Affiliated to Osmania University Accredited by NAAC with A^{\dagger} Grade (3rd cycle), CPE by UGC

Mehdipatnam, Hyderabad.





CRITERION - VII

Institutional Values and Best Practices

7.1.3 Facilities in the Institution for the management of the degradable and non-degradable waste

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Waste Management Report

The waste management practices at St. Ann's College are designed to ensure proper segregation of waste at the source and are segregated into biodegradable & non-biodegradable waste to facilitate recycling and resource recovery.

Biodegradable Waste Management

1. Solid Waste

Twin Bin system on campus enables the segregation of waste into wet waste and dry waste.

- Organic waste generated from the garden is collected in an organic manure pit maintained by Department of Botany
- the Department of Zoology oversees vermicomposting where organic waste from the canteen is converted into **compost** using worms. Additionally, the vermicompost is packaged and sold on campus as part of the Zoology department's **green initiative called LIVOM**.
- The kitchen waste from the Nutrition lab is composted in a Khambha, and the resulting manure is used in the garden.
- Biogas Plant-Food waste on the campus is converted to biogas in the biogas plant.
- Lab- staff are trained by Eco club volunteers to compost the kitchen waste effectively.

Non- Biodegradable Waste Management

- Plastic Chemical bottles and waste handed over to ITC paperboard who provide us stationary in return.
- Sanitary pad incinerator is installed

.

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Solid Waste Management

Organic manure pit: Organic waste from Nutrition labs & garden waste is collected in a pit and the manure is used for the garden and nursery The pit is maintained by Department of Botany.







(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



VERMICOMPOSTING

Department of Zoology maintains the vermicompost unit in the campus.

Vermicomposting is a process by which organic waste is converted to biofertilizer using earth worms. Vermicompost contains major and minor nutrients it also contains growth hormones, antibiotics and vitamins which are beneficial for the growth of crops, flowering and fruits settling and resistance to pest and diseases. Compost also contains calcium, humus which improves soil structure and moisture holding capacity.

Vermicompost Preparation

All vegetables and other fruits scraps or wet waste is dumped in to the vermicompost pit. Vermicompost by using earthworms are subjected to composting, worms eat organic waste and excrete the materials as the nutrient rich fertilizer contains high level of humus, so produced vermicompost is mixed into the soil

Place of Establishment of Vermicompost Pit

In the garden of St. Ann's college for women Mehdipatnam.

Reasons for Establishment

- To provide hands on training in vermicomposting.
- To minimize the organic waste in the campus.
- To prevent environmental pollution.
- To improve the quality of soil.
- To enhance germination, growth and yield.
- Biowastes conversion reduces waste flow to landfills.

Benefits of Using Vermicompost

• Produces higher quality crops and better yield than chemical fertilizer.

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



- 100% recyclable and green- no pollution.
- Makes the plants healthy, resistance to diseases.
- Produces bigger and stronger plants and make flowering plants bear more blooms.
- Contains high level of humus.

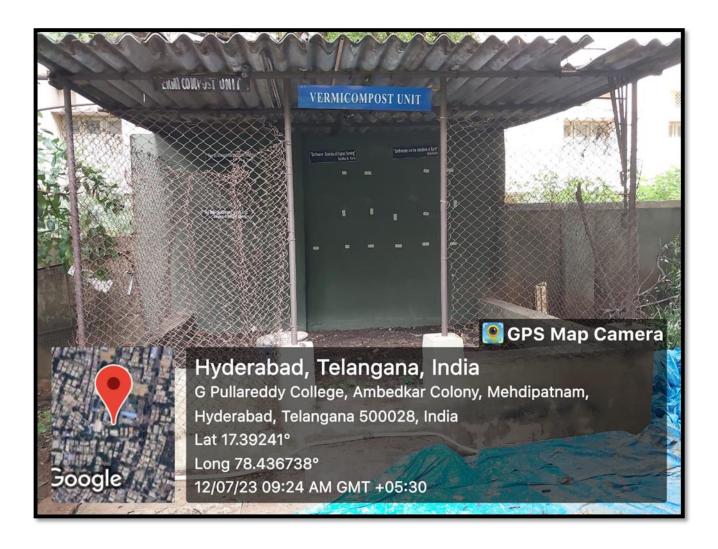
Coordinators: lecturers in charge: - Dr.K. Tabassum and Dr. Tasneem Jahan

Target group: Our UG students and school students of Neighbouring area Bojagutta.

This is an awareness and training programme in organic farming using vermicompost. It is aimed at providing an awareness and hands on experience to the students to take up organic farming in their premises. The stall was also put in the college campus in the first week of August by the student volunteers to sell the packets of vermicompost at a very reasonable price and volunteers motivate the people to know the importance of vermicomposting.







(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India







Dry waste Management

Paper and Plastic recycling: Dry Waste is given for recycling

Eco club has trained students to segregate waste as dry and wet waste. Many campaigns, awareness programmes, invited talks, guest lectures are organised to create awareness on the importance of Waste segregation. Twin bin system is being implemented in the college.

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Regular Dry waste collection drives are organised and collected waste is given to Green Waves Environmental solutions for recycling. Eco club maintains a Dry waste centre where all the collected waste is stored and handed of on regular basis The college also has MOU with Earth Box for recycling paper and plastic waste collected from all Departments of the college..

Kitchen Waste Composting

Demonstration sessions are organised for environment education students on how to compost kitchen waste like vegetable and fruit peels. Also kitchen waste generated in Nutrition lab is composted in Khambha by the laboratory staff.



(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India





Liquid waste management-

A laboratory liquid waste management system is planned which utilizes two soak pits for non-hazardous waste, facilitating groundwater recharge.

Hazardous chemical waste is contained separately and transferred to a disposal unit. Both types of waste are percolated through different systems, with percolation pits filled with gravel and river sand, doubling as rainwater harvesting systems, ensuring environmental safety and resource conservation.

Liquid waste like acids and bases are diluted appropriately before disposal

In order to recycle and utilise 80% of the organic solvents, a distillation machine has been installed in science departments.

Utilising an inventory management system, staying away from long-term storage, and getting rid of outdated chemicals are all ways to avoid chemical stockpiling.

Green chemistry and microscale experimentation techniques are employed to reduce the production of hazardous wastes.

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Micro-scale experiment In Chemistry Lab



Biomedical waste disposal in Science Labs

The collection of biodegradable waste necessitates the use of various types of containers and bins. For instance, all sharp metals, such as used finger-pricking needles, syringes and student disposable gloves are disposed of in red bins, pathological waste is disposed of in yellow bins, Biohazard and microbial cultures in blue bins. Sharp needles are housed in puncture-proof receptacles to protect attendees from harm and infection while also making handling them easier for staff. Each container has a clear label indicating what should be placed within it. Daily waste disposal takes place, and the trash cans are cleaned and used.







(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India





Autoclaving of used cultures before discarding @Microbiology Lab



 ${\bf Autoclaving\ of\ used\ cultures\ before\ discarding\ @Microbiology\ Lab}$





Biohazard disposal @Microbiology lab



(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



e-Waste Management at St. Ann's

ICT Center regularly takes up collection and safe disposal of e-Waste.

Students were advised to collect and store their e-Waste safely and deposit it at ICT Centre in e-waste bins provided.

Representatives from Croma store visited the campus and collect e-Waste Safe disposal or recycling was taken up Croma representatives E waste collection drives are organised on a regular basis.



(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Details of Waste disposal and Recycling Strategy @St.Ann's

Types of Waste	Source	Disposal Strategy	Recycle Strategy
Liquid waste	Chemistry	Acids & Bases on	
(Acids and	/Biochemistry	site after lots of	
Bases)		dilution into the	
		sinks	
		Percolation pits	
Garden Waste	Garden		Garden waste composted
			in Organic Manure pit
Plastic Chemical	Life Sciences &		Empty plastic Chemical bottles
bottles	Chemistry labs		handed over to
			ITC paperboard
Biomedical	Very minimum in	Incineration	Incinerated after collection in a
Waste	Zoology,		Bio Hazard collecting bins &
	Microbiology		cover
	,Biochemistry		
	labs		
Cloth Materials	Old clothes		Green waves
Waste			Environmental solutions
Electrical Waste	All departments		Croma
(Wires,			
Switches, Fans,			
A/C, machines,			



Holders, Meters,			
Coils, etc.)			
Electronic Waste	All Departments		Croma
(Computer,			
Laptop, CD, Pen			
drive, Key			
boards, Mouse,			
Printers, UPS)			
Fluorescent	College campus	-	Municipal Waste
Light			
Tubes	Very few in All	Municipal	Municipal waste
	Department	waste	
Food Waste/	Nutrition lab and		Composting in Khambha
Kitchen Waste	canteen		
Furniture Items	All classes	Municipal	Municipal waste
	,departments	waste	
Cardboards	Departments	-	ITC Paperboard
	/Canteen		
Glass Bottles	Science labs	Municipal	Municipal waste/ITC Paper
		waste	board
Broken	Chemistry /Science	Muncipal	Reused as artifacts and
Glassware	labs	waste	sale(Initiated in 2022-23)
Hazardous Waste	Very minimum in	Autoclavin	Microbial cultures are
	Science labs	g/Disinfect	autoclaved
		ion	
Sanitary pads	Available	Incinerated	Municipal waste

(Autonomous), Affiliated to Osmania University, Accredited 'A+' Grade by NAAC (3rd Cycle), College with Potential for Excellence by UGC, Hyderabad- 500 028, India



Lights and Bulbs	All departments	Municipal waste
Packaging Waste	All departments	 ITC Paperboard
Paper Waste	All departments	 ITC Paperboard
Plastic Waste	Very minimum in All departments	 ITC Paper board
Salts used in	Stockpiling of	 Stock registers maintained and
Laboratories	chemicals	monitored for order /purchase
(Used &	avoided	only required items
Expiry		
Chemicals)		
Trash	College campus	 Municipal waste
Glass		
Metal		
General Trash		

Ann's College for Woman Colony Line Colony Woman Colony Willed

Dr. Sr. P. Amrutha

Proprincipal/

St. Ann's College For Women (Autonomous)

Mehdipatnam, Hyderabad-28