Report on degradable and non-degradable waste Management

Solid Waste Management:

ATME College of Engineering has a very good policy in the solid waste management system. The Solid waste collected form each department and is put by the respective departments in a collection pit located within the campus. The waste is segregated into biodegradable and non-degradable wastes. As a social responsibility about the nature, we produce natural manure by compost waste treatment is the process of converting dry leaves and paper waste into compost so that it can be used as a manure for the planets. Also, the solid waste generated through Cafeteria is also put into the same pit for preparing the compost. As a natural initiative, we avoid chemical pesticides for the plants as a manure in the campus.





Figure: Compost pits located at ATME campus

Liquid Waste Management:

ATME College of Engineering has its own Sewage water treatment plant. It's in function since 2018. The treatment unit aims at reducing the contaminants to acceptable levels so that it can be discharged back into environment.

Design Parameters:

The overall design of the waste water treatment plant consists of 2 stages

- i) Primary treatment which consists of screening, grit removal and sedimentation
- ii) Secondary treatment consists of a bioreactor.

Waste water treatment facility & Mode of disposal

- The proponent has Sewage Treatment Plant (STP) of capacity 16686 litres.
- Raw Sewage Screening, Oil / Grit Removal, Equalization Tank, Fluidized Bio Reactor, Tube Settler, Pre-filtration tank, ACF, PCF, Final Treated holding tank.
- The treated wastewater is recycled for toilet flushing's and gardening purpose.



Figure: Waste water Treatment plant located at ATME campus

E-waste management System:

E-waste generation at our institute is very minimal. Since the e-waste are consisting of computers and its peripherals, the e-wastes generated are stored at one place. Also, the disposal of the e-wastes is planned by tying up with Sogo e-waste management, Bangalore.

Waste recycling system/ Rain Water Harvesting System

As mentioned in the Liquid Waste management System above, the college has STP plant to which used to recycle the waste water. The recycled water is used for Toilets and gardening purpose.

Along with this, ATME College of Engineering in order to achieve sustainability has implemented the rain water harvesting system in the campus. The system adopted is roof top rain water harvesting. The details of the potential volume of harvesting are as given below table. The campus is equipped with underground sump of capacity approximately 92,000 litres, to store the harvested rain water.

Table: The details of roof top area and the harvesting potential

| Sl. No. | Block | Roof Top Area (m²) | Average Rainfall per annum in mm | volume of water collected (m³) |
|---------|----------------|--------------------|----------------------------------|--------------------------------------|
| 1 | CV Department | 1664.02 | | 1281 |
| 2 | EEE Department | 1306.3 | 770 | 1006 |
| 3 | ME Department | 2264.82 | | 1744 |
| Total | | | | 4031 |



The surplus rain water which is in the form of surface run off is redirected to the recharge wells located at various locations. The below is picture of couple of recharge pit.









