

Shram Sadhana Bombay Trust's
COLLEGE OF ENGINEERING AND TECHNOLOGY
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Best Practice -II

Green and Clean Campus

Objectives of the Practice

For Environmental sustainability and as health leads to happiness and happiness leads to success, it is essential to instil the importance of maintaining the green and clean campus among all stakeholders, the practice has following objectives:

- Eco-friendly and pleasant atmosphere
- Efficient use of energy and water
- Recycling waste

The context

A Green & Clean Campus is a place where environmental friendly practices and education combine to promote sustainability in the campus. This offers an institution an opportunity to take a lead in redefining its environmental concern and develop new paradigms towards sustainable environmental management. The sustainable environmental management includes green cover, solid & liquid waste management, rain water harvesting, water and energy conservation etc. The institute has already implemented such green initiatives, however initiation, awareness, managing & sustaining the same are equally important.

The Practice:

The campus has a lawn that is one of the biggest in this region. It spreads over 4.5 acre land. The college has taken keen efforts to make the campus green by tree plantation. It has over 1150 tree in the campus. This figure is in addition to the flowery plants and bushes etc. Every year new tree plantation program conducted to encourage student participation for maintaining eco-friendly and pleasant atmosphere.

The college gets water from an open well located in the bed of river Girna. It is around 1 km away and requires a lift of 25 m. hence bringing water in the campus is quite expensive. Keeping this in view, college has indigenously designed a sullage recycling scheme. The residential areas in the college has two pipe plumbing system. Sewage and sullage are collected in separate pipes. The sewage is taken to septic tanks but the sullage is treated through adsorption by coconut husk and skimming. Thus around 70 m³/day water is re-circulated. This saves water as well as electricity also.

College has Solar Rooftop Panels that provide electricity for all the buildings and hostels. In view of Energy Conservation college had installed Solar Water Heaters in hostels. The total capacity of Solar Water Heater is 19500LPD (Litter per Day).

Use of Energy Efficient electrical appliances is the best practices in energy conservation. The college initiated identifying & replacing inefficient electrical gazettes like lighting fixtures, fans,

AC's, pumps. All new establishment and renovation areas are equipped BEE marked star rating LED Lights, Fans and AC's.

The bio-degradable waste generated by the mess is taken to a biogas plant. Vermicomposting of litter is in practice. Earthworms break down organic waste into nutrient-rich worm manure. Earthworms multiply in compost piles and the vermicompost manure is used in garden.

Evidence of Success

- The Green campus led to a drop of 1 -2 degree Celsius temperature in summer compared to the surroundings.
- Tree plantation contribute to the environment by providing oxygen, maintaining flora and fauna, improving air quality, conserving water, preserving soil, and climate betterment.
- Maintaining lush green lawn and trees by recycling the sullage has led to effective sullage recycling and management.
- Solar Rooftop Panels for electricity and installation of Solar Water Heater in Hostels has reduced 60kW connected load.
- All new establishment and renovation areas are equipped BEE marked star rating LED Lights, Fans and ACs ultimately leading towards sustainability.
- The biogas plant addresses waste disposal problems as well as reduces the cooking gas consumption.
- The produced vermicompost from Vermicomposting units are rich in nutrition and used as bio fertilizer for growth of plants of the garden maintained by the institute.

Problems Encountered and Resources required

The up keeping of the infrastructure and maintaining Green and Clean Campus require funds and being self-financed institute, institute depends upon fees collected. Hence, the institute finds difficulty in planning & budgeting for the required infrastructure.