



Institute of Chemical Technology, Mumbai

Deemed to be University under Section 3 of UGC Act 1956
Elite Status and Centre of Excellence, Govt. of Maharashtra

BEST PRACTICES IN MY INSTITUTION

BEST PRACTICE#1

1. Title of the practice

Waste Management

2. The context that required the initiation of the practice

The institute premises has residential as well as hostel facilities for accommodation of faculty and students. As a result, significant amount of waste (biodegradable as well as non-biodegradable) is generated. ICT is a responsible institute which consciously works for development of waste management technologies under different research sections and hence believes in managing the waste generated.

3. Objectives of the practice

To manage disposal of 1) Kitchen Waste 2) Hazardous Waste 3) E-Waste

4. The Practice

The institute encourages the management of waste generated within the campus and conducts regular workshops and seminars on waste disposal, their source, classification as well as pest control. The Institute practices efficient waste management of kitchen waste from hostel messes and, canteens which serve meals to around 1000 students per day. The cooked and uncooked waste generated from these messes is treated in the waste disposal and management plant set up on the campus and is converted to biogas and manure. The Biogas is used for running kitchen stoves and the manure is used as a fertilizer supplement in gardening.

The institute has prohibited the use of plastic bags within the campus premises. Electronic goods are put to optimum use, repaired, and reused until completely out of

order. The staff and laboratory assistants are well trained to perform minor repairs while professionals are hired for major repairs. Electronic goods are put to optimum use, repaired, and reused until completely out of order. The staff and laboratory assistants are well trained to perform minor repairs while professionals are hired for major repairs.

The UPS batteries are recharged/repaired/exchanged by the suppliers. The obsolete computers and other wastes generated from the electronic equipment are auctioned to authorized e-waste dealers and the hazardous materials are removed and disposed of as per norms.

The Institute in collaboration with the Waste to Energy Research and Technology Council India (WTER- India), hosted the fourth annual conference on waste management of industrial, construction/demolition, municipal solid, and e-wastes as an uninterrupted resource for recovery of the valuables and energy on November 26 and 27, 2015 at ICT.

5. Obstacles faced if any and strategies adopted to overcome them

ICT follows proper norms for waste management. However, the Institute decided to upgrade the existing practices with much more defined protocols and rules. The existing support staff was encouraged to adopt the waste segregation and management practices. Proper rules for waste segregation were imposed on the residents of the campus. The support staff and workers were trained for the waste management practices. Proper policies for discharge and discard of hazardous chemical and effluents were laid and circulated to all departments.

6. Impact of the practice

ICT today manages its waste efficiently and moving towards a greener, cleaner and environmentally friendly campus. The campus has provision for composting the organic fractions generated from hostel and residential quarters. The fertiliser made from the process is used for enriching the garden plants in the Campus premises.

7. Resources required

Composting systems and pits, manpower for segregation

8. About the Institution

i. Name of the Institution: Institute of Chemical Technology, Mumbai

ii. Year of Accreditation: 2017

iii. Address: Nathalal Parekh Marg, Matunga, Mumbai - 400019

iv. Grade awarded by NAAC: A++

v. E-Mail:vc@ictmumbai.edu.in

vi. Contact person for further details: Dean IQA - 9372373309

vii. Website:<https://www.ictmumbai.edu.in/>

BEST PRACTICE# 2

1. Title of the practice

Environmental Consciousness and Energy Conservation

2. The context that required the initiation of the practice

The Institute believes and follows in practicing environment friendly approach for a sustainable future. The Institute is committed to energy conservation and focuses on measures that help conserve energy

3. Objectives of the practice

To maintain green, sustainable and environment friendly campus premises

4. The Practice

Environment consciousness is enshrined in the mission of the Institute and irrespective of its urban surroundings, the Institute has a lush green campus. Tree plantation is the major concern to maintain the pristine purity and beauty of the institute and provide a congenial atmosphere for academic and non-academic pursuits. Even though no formal green audit is conducted, a lot of dedicated effort is put in to make the campus eco-friendly. There are 25 gardeners to carry out the horticulture work and the Institute has won the best garden award for several years. Informal green audit of the campus is carried out by the staff periodically by supervising the maintenance of the existing trees and locating places for planting new trees. Nurturing plants is one of the non-academic pursuits that develop eco-concern among the students. Efforts are made to make the Institute a polythene-free zone by removing plastic covers periodically from the campus.

The Institute closely monitors the energy consumption and the superintendents meticulously keep a check on various activities. The notices displayed near the switchboards prevent wastage of energy. All departments have timer introduced air conditioners. All the motor pumps have a sensor-based switch on and off mechanism.

The institute has replaced all incandescent bulbs with highly efficient CFL and LED bulbs.

The Institute has two rainwater harvesting structures for the reuse of rainwater in washrooms and other purposes. A concept of eco-campus incorporating treatment and reuse of greywater, rain-water harvesting is being worked out to manage water usage.

The institute has adopted use of renewable energy platforms to reduce the burden of energy consumption and thus the energy bills. The institute has installed 730 kW solar panels has led to a reduction of power bills of up to Rs. 20 lakh per month. The High-performance computational lab in the institute is equipped with Solar-powered air-conditioners. The hostels have solar water heaters installed for the hot water supply.

Research groups work on innovative concepts in the area of renewable energy such as solar-powered lights, cookers, dryers and, have received recognition from industrial and agricultural fields.

The institute constantly strives to maintain a carbon efficient and a pollution-free campus. The Institute undertakes several measures to reduce carbon emissions. Various types of trees are planted inside and outside the campus which help maintain the ecosystem and reduce carbon emissions. Planting of saplings by the chief guests of various functions evinces the eco-consciousness inherent in the institute practices. Natural fertilizers are used for gardening on the campus. Circulars are sent through emails for minimizing the use of paper and the Institute is gradually moving towards a paperless system.

5. Obstacles faced if any and strategies adopted to overcome them

The people of the Institute have been made aware and conscious of benefits green and renewable energy sources and their impact on sustainable living.

6. Impact of the practice

The institute has installed 730 kW solar panels has led to a reduction of power bills of up to Rs. 20 lakh per month. The use of vehicles is discouraged inside the campus to maintain a pollution-free campus. The rain harvested water is reused in the hostel toilets and bathrooms and indirectly helps reduce water usage.

7. Resources required

Thoughtfulness and conscious efforts towards minimising wastage of natural resources and conservation of energy sources.

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