MUNICIPAL SOLID WASTE MANAGEMENT (3+0)

Objective

The quantum of solid waste generation has considerably increased and the characteristics of wastes have also significantly changed over the years, with the unplanned growth of population, increased urbanization and developmental activities which are seriously degrading the urban and semi-urban environment in many parts of the world, placing enormous strain on natural resources and undermining efficient and sustainable development. Daily thousands of tonnes municipal solid waste is simply being dumped on open lands and these existing sites are overflowing with new wastes and identification of new sites for disposal of wastes are becoming scarce. Therefore, there is a need is to raise awareness on the use of appropriate technologies for efficient management of solid waste. Against this backdrop, the course will discuss the basic concepts of solid waste and their classifications based on sources and types followed by the aspects of environmentally sound management practices and the current scenario of solid waste in India.

Syllabus

1. Municipal Solid Waste Management: An Introduction.
2. MSWM In India: Issues and approaches
3. Generation and Characteristics of Waste.
4. Waste Collection, Storage and Transport.
5. Waste Disposal.
6. Waste Processing Techniques.
7. Source Reduction, Product Recovery and Recycling.
8. Recovery of Biological Conversion Products: Compost and Biogas.
9. Incineration and Energy Recovery.
10. Hazardous Waste: Management and Treatment.
11. Integrated Waste Management (IWM).
12. Basics of Data base Management System (DBMS), Geographic Information System (GIS) and Remote Sensing
13. Geographic Information System (GIS) and Remote Sensing data in planning and management of MSW.

Minimum Background Required

In-service professionals / Fresh graduates in Engineering

Duration & Course Fee

The course is designed for 4 months (total credits 3+0).

Course Fee: Rs.9,000/-. The intake is limited to 50 and the admission is based on First-cum-First-Served basis.

Course Schedule

- Classroom briefing and introductory sessions at the beginning of the course (3 days - 26th Aug – 28th Aug 2006))
- Interactive session through WEB and Email for two months
- Mid-term contact session (3 consecutive days) & Mid-term Exam
- Project work after the Mid-term contact session
- Final contact session (3 days) and Final exam at the End of the Course

Faculty: **DR. T V RAMACHANDRA,** Centre for Ecological Sciences, IISc
E-mail: cestvr@ces.iisc.ernet.in