Solid Waste Management – Feasibility of Technology Transfer

Overview

Rising global population and strong coupling between economic development and consumption have led to depletion of resources and generation of waste at a rate faster than ever before. Solid waste management is one among the basic essential services provided by municipal and local authorities (LAs) to keep urban centres clean. However, it is among the most poorly rendered services – the systems applied are unscientific, outdated and inefficient; population coverage is low; and the poor are marginalized. Newer waste streams such as electrical and electronic waste (e-waste), hazardous waste, health-care and plastic waste, Construction and Demolition (C&D) waste, etc., have surfaced posing bigger challenges for LAs responsible for waste management. Waste management has become a major concern for emerging economies of the world that do not have adequate infrastructure and services and lack comprehensive waste management related policies and legislation. Constraints on financial resources and technical knowhow further compound the problem. Poor management of waste leads to adverse impacts on human health and ecosystems.

Organized Reduce, Reuse, Recycle (3R) of waste is rarely evident, especially to create "green jobs and investments". The LAs have therefore two major challenges to face - one is the quantity or sheer volume of waste and second - the rising complexity of waste characteristics (i.e. newer waste streams). For LAs who are more akin to management of conventional municipal solid waste (MSW), these challenges are very special and critical - demanding capacity building and reforming management structure. Staff at the LAs needs to improve understanding on the technology options available in developed countries especially related to waste reduction, reuse, recycling treatment and disposal. Concept of Integrated SWM is very relevant in this context and LAs need to be trained as well as more research is needed on how to apply ISWM.

Griffith University, Australia has been appointed as one of the Sub-Secretariats as high quality training providers in the waste management area. Griffith’s Graduate Certificate in Waste Management has been operating since 1998 training waste management professionals from around the world in developing their skills and leadership in key areas such as municipal SWM, hazardous waste management, resource efficient and cleaner production. Key feature of these courses is the heavy emphasis on waste management in developing countries to cater for number of trainees from those countries.

This course is organized in two modules that should be taken together. The topics in Module A will expose the participants to the basics of solid waste management, policy and strategy approaches, initiatives in waste recovery & recycle, scientifically engineered disposal sites followed by few applied case studies and designs. Topics in Module B include hazardous waste management, emerging hazardous waste streams and E-waste management followed by a few applied case studies and design examples.
Course participants will learn these topics through lectures and hands-on exercise. Also case studies and assignments will be shared to stimulate research motivation in participants.

B: Hazardous Waste and E-waste Management: February 17 – 20, 2017 |
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<td>Number of participants for the course will be limited to fifty. Selection is first come first serve basis.</td>
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| You Should Attend If... | ▪ You are an environmental, civil engineer, or research scientist interested in solid waste management.  
▪ You are a student, preferably pre-final & final year undergraduate or post graduate or faculty from academic institutions interested in research.  
▪ Executives, Engineers and Researchers from Service and Government organizations including R&D laboratories, pollution control boards, municipal corporations.  
▪ You are consulting engineer, in-service engineers from industries and non-government organizations. |

| Fees | The participation fees for taking the course is as follows:  
▪ Students/Faculty of host Institution: Free  
▪ Students from Academic Institutions: Rs. 750/-  
▪ Members of the Faculty from Academic Institutions: Rs. 1,000/-  
▪ Industry/ Research Organizations: Rs. 1,500/-  
▪ Participants from abroad: US $100 |

The above fee includes all instructional materials.
The Faculty

Dr. Herat is an expert on Municipal Solid Waste Management, Hazardous Waste Management and Cleaner Production and Eco-efficiency. His research area is waste management in developing countries with a special focus on emerging hazardous waste streams such as e-waste. Dr. Herat has published a number of research papers in peer-reviewed journals and presented in a number of international conferences. He is currently the head of e-waste project at Griffith University. Dr. Herat is a consultant and also a member of the expert subsidiary group on e-waste in the United Nation’s Regional 3R Forum for Asia. Dr. Herat also provides advice on e-waste matters to Local Authorities through United Nation’s International Partnership for Expanding Waste Management Services in Local Authorities (IPLA). Dr. Herat is the program coordinator of the postgraduate degree in waste management offered by Griffith University and in-charge of teaching postgraduate courses in SWM, hazardous waste management and cleaner production and eco-efficiency. He has over 15 years of experience in training waste management professionals. He has supervised several coursework and research projects in this area.

Dr. B. Manoj Kumar received his B.E and M.Tech. degree from University of Mysore and obtained Ph.D. from Indian Institute of Technology Bombay (IIT, Bombay) in Environmental Engineering. He is currently working as Professor in the Department of Environmental Engineering with over 25 years of teaching and 20 years of research experience. He has completed 4 sponsored research projects and over 20 consultancy projects. He has published more than 30 research papers in international & national journals and conferences. Dr. Manoj has given guest lectures and trained working professionals of various government departments in the refresher courses sponsored by CPHEEO, Govt. of India (GoI). He is nominated twice as the Member to Karnataka State Environmental Appraisal Committee constituted by Ministry of Environment and Forests, GoI. His current research areas are advanced waste treatment and modeling of environmental systems.

Course Co-ordinator

Dr. B. Manoj Kumar
Professor,
Department of Environmental Engineering,
Sri Jayachamarajendra College of Engineering,
Mysuru 570 006, Karnataka, India

Phone: +91 9886544263
E-mail: manoj_kumar_b@hotmail.com; bmanoj@sjce.ac.in

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