

TECHNICAL ACTIVITY CARRIED OUT BY CENTRES / OVERSEAS CHAPTERS

Name of Centre / Overseas Chapter:	DURGAPUR LOCAL CENTRE		
Title of Activity:	World Habitat Day on 'Municipal Solid Waste Management'		
Activity under Divisional Board (delete which are not applicable):	ENDB		
Date:	01/10/2018	Venue:	IEI, Durgapur Local Centre Silver Jubilee Hall



Mr R K Roy, Chairman delivering his welcome address and seen (l to r): Dr Kalyan Adhikary, Dr Biswajit Ruj & Mr M N Bandyopadhyay



Dr Kalyan Adhikary delivering his presentation

The Institution of Engineers (India), Durgapur Local Centre observed World Habitat Day on 1st October 2018 at Visvesvaraya auditorium of IEI, Durgapur Local Centre.

The day was started by screening a documentary film show on 'Solid Waste Management'.

Mr M N Bandyopadhyay, Honorary Secretary in his introductory address said that the United Nations has designated the first Monday of October of every year as World Habitat Day. The theme for World Habitat Day 1 October 2018 is Municipal Solid Waste Management. The purpose of World Habitat Day is to reflect on the state of our towns and cities, and on the basic right of all to adequate shelter. It is also intended to remind the world that we all have the power and the responsibility to shape the future of our cities and towns.

At the outset Mr R K Roy, Chairman welcomed the members and dignitaries and explained the theme 'Municipal Solid Waste Management'. He highlighted that the focus of this year's World Habitat Day celebrations is taking action to address the municipal solid waste management challenge. This year's theme is Municipal Solid Waste Management with a slogan Waste-wise city. On 1 October 2018, and in the period before and after this day, a concerted effort will be made to:

- raise awareness that Municipal solid waste is a global challenge that all of us need to address
- facilitate policy dialogue and form partnerships
- promote innovative solutions to municipal solid waste management
- mobilize resources to address the municipal solid waste challenges

Guest of Honour, Dr Biswajit Ruj, Senior Principal Scientist & Head Environmental Engineering Group, CSIR-CMERI Durgapur in his presentation he said that Municipal solid waste (MSW) management is a major environmental issue in Indian cities. Due to rapid increase in urbanization, industrialization and population, the generation rate of municipal solid waste in Indian cities and towns is also increased day by day. Improper management of municipal solid waste (MSW) causes hazards to

inhabitants. Composition of MSW varies from region to region, county to country and it is observed that on an average around 10-12 % plastic waste present in MSW which is very difficult to dispose safely as plastic waste is non-biodegradable in nature. Here in this presentation two routes say thermal pyrolysis and plasma pyrolysis process have been elaborately discussed which were carried out in CSIR-Central Mechanical Engineering Research Institute, Durgapur as a Research & Development activity program of this institute. Objective of both the process is same but the route is different. Plasma pyrolysis process involved high temperature and produces syngas which is combustible in nature and this syngas is being converted to electrical power whereas for thermal pyrolysis process three products say pyrolytic oil, gas and char have been collected as byproducts which are all have commercial importance. It is observed that in thermal pyrolysis process around 60 % pyrolytic oil, 20% gas and rest is char have been collected. Here in this presentation 20 kg/hr. capacity plasma pyrolysis process and 15 kg batch thermal pyrolysis process for safe disposal of plastic waste and fuel/energy recovery process have been presented in details.

Dr Kalyan Adhikary, Associate Prof. and Head, Department of Earth & Environmental Studies NIT Durgapur presented his paper on 'THE CONCEPT OF Municipal solid waste management system vis-à-vis MSWM OF DURGAPUR'. In his presentation touched upon the following points

- Millennium Development Goal for this millennium is Sustainable Development.
- For Sustainable Cities with Highest quality of Urban life environment resilient and scientific solid waste management is the obligatory need of the day.
- A TERI publications estimates that the cumulative requirement of land for MSWM disposal in India will be about 1400 km square in 2047.
- We bin around 50 million MTs of electrical waste globally every year.
- We throw away 7.2 million MTs of food every year
- Humans now buy a million plastic bottles a minute. Most of this plastic ends up in the ocean. By 2050
- MSW generation levels are expected to double by 2025.
- The higher the income level and rate of urbanization, the greater the amount of solid waste produced.
- Keeping in mind of the present scenario of Global MSWM, the current review examines the opportunities and improvements that could be brought about in MSW management (MSWM) system in the country as BACKGROUND & SHOCKING FACTS well as in the City of Durgapur.

Vote of thanks was given by Hony. Secretary, Mr. M N Bandyopadhyay after an interesting question and answer session which was not only lively but gives an opportunity for members to interact between them and speakers.