

## TEQIP-II Sponsored Short Term Course

On

### “Industrial and Municipal Waste Management (I&MWM)”

(24<sup>th</sup> -25<sup>th</sup> January 2017)

#### Registration Form

Name: \_\_\_\_\_

Gender (M/F): \_\_\_\_\_

Designation: \_\_\_\_\_

Organization/Industry: \_\_\_\_\_

Qualification: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Mobile No.: \_\_\_\_\_

E-mail: \_\_\_\_\_

Accommodation Required: Yes/No

Date: \_\_\_\_\_ Signature of applicant

Place: \_\_\_\_\_

Forwarded through H.O.D./Institute

#### How to reach NIT Rourkela?

Rourkela is on the Howrah (Kolkata)-Mumbai main line of South Eastern Railway. The railway station and intrastate bus stand are 6kms and 2kms from NIT Rourkela campus, respectively. The airports near to Rourkela are Ranchi, Bhubaneswar and Kolkata. Rourkela is well connected to these cities by rail and train frequency is very good.

#### Registration

Registration is free for all participants. Free Accommodation may be provided in the Institute Guest House on first come first serve basis and on the basis of availability. No TA/DA will be provided.

#### Intended Attendees

Persons working in various industries, government municipality, hospitals, NGOs are expected to attend. Interested faculties from academic institutes are also encouraged to attend.

#### How to apply?

Scanned copy of the duly filled and signed registration form approved by the Head of the Department/Institute should be sent through E-mail to the principal course coordinator. Hard copy must be submitted in the registration desk on 24<sup>th</sup> January 2017.

#### Important dates

Last date of the receipt of registration form: 21<sup>st</sup> January 2017

Notification to the participants: 22<sup>nd</sup> January 2017

Course duration: 24<sup>th</sup> to 25<sup>th</sup> January 2017

#### Principal course coordinator

**Dr. Sandhyarani Biswas**, Assistant Professor  
Department of Mechanical Engineering  
National Institute of Technology Rourkela  
Rourkela- 769 008 (Odisha), India  
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Ph.: 0661-2462505 (O), Mobile: 09437254078

#### Course coordinator

**Dr. Arvind Kumar**, Assistant Professor  
Department of Chemical Engineering  
National Institute of Technology Rourkela  
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#### Coordinators

**Dr. Sandhyarani Biswas**, Assistant Professor  
Department of Mechanical Engineering

**Dr. Arvind Kumar**, Assistant Professor  
Department of Chemical Engineering

Organized by,



**National Institute of Technology  
Rourkela, India**

### About NIT Rourkela

National Institute of Technology, Rourkela formerly known as Regional Engineering College is a premier institute of higher learning for engineering, science and technology located in the steel city of Rourkela, Odisha, India. The mission of the institute is to contribute to India and the World through excellence in scientific and technical education and research and also to serve as a valuable resource for both the Industry and Society.



### About the Department of Mechanical Engineering

The mechanical engineering department is one of the oldest departments being set up from the date of inception of the institute. The department offers five specialisations under M.Tech degree and has more than hundred Ph.D. research scholars enrolled. The department is well equipped with infrastructure to meet the requirements of UG, PG courses and to carry out advanced level research work.



### About the Course

Now-a-days, the growth of population, increasing urbanization, rising standards of living due to technological innovations have contributed to an increase, both in the quantity and variety of wastes generated in India. It is reported that, during different industrial, mining, agricultural and domestic activities, India produces million tons of wastes which pose major environmental and ecological problems besides occupying a large area of land for their storage/disposal. The amount is

expected to increase significantly in the near future as the country strives to attain an industrialized nation status by the year 2020. Generally, wastes are of both non-hazardous and hazardous in nature. Hazardous waste is more dangerous to the environment and to those handling the waste and must be technically managed with more strict controls than non-hazardous waste. Collection and disposal of these wastes is one of the major environmental problems in India. At present most of the wastes in the country is disposed of unscientifically. This unscientific disposal causes an adverse effect on the environment and human health. Further, the heterogeneous characteristics of these wastes lead to complexity in recycling and utilization. Managing wastes is one of the major challenges of urbanization. Management of solid waste reduces or eliminates adverse impacts on the environment and human health and supports economic development and improved quality of life. However, due to several legislative, environmental, economic and social constraints, the identification of most sustainable disposal route for waste management remains an important issue in almost all industrialized countries. Utilization of waste materials could reduce contamination and spaces for disposal. Therefore, controlling the pollution arising out of the disposal of wastes by conversion of these unwanted wastes into utilizable raw materials for various beneficial uses is a prime concern among the current researchers.

### Objective of the Course

The course aims to address the present status on the industrial and municipal wastes generation in India and their impact on environment and health. The course is also structured to cover the latest waste management techniques used and the current status of utilization potential of wastes in various applications.

### Course Contents

Types of wastes, storage and collection of wastes, waste characteristics and compositions, impact of wastes on environment and health, waste recycling, waste disposal and treatment, policies and strategies for waste management, waste prevention techniques.

