

# Executive Development Program on TECHNOLOGICAL ADVANCES IN WASTE TO ENERGY CONVERSION

27<sup>th</sup>-30<sup>th</sup> July, 2022

Venue:

IIT (ISM) Industries Institute Interaction Facility  
NBCC Shopping Centre (2nd Floor), New Town, Rajarhat, Kolkata, India



Organized by

Dept. of Environmental Science & Engineering  
Indian Institute of Technology (ISM),  
Dhanbad - 826004, India

URL: [www.iitism.ac.in](http://www.iitism.ac.in)

*Treat Waste as a Resource and Handle it for Energy Production!*

## About the Course

Enormous quantities of waste are being generated from industries and domestic areas every year in our country. A major part of this waste lies unutilized and is also a source of environmental and health hazards, due to their indiscriminate disposal at different places. This practice serves as a serious challenge to human, livestock, and environmental health. The conversion of waste into watts is a holy grail for the planet's human civilization. Waste to energy conversion technologies allows us to utilize waste heat instead of producing more electricity and greenhouse gases to accomplish the same task. Keeping in view these challenges, this training program is designed to provide an advance and comprehensive knowledge of ways for scientific and efficient conversion of waste to energy, recognizing it as an asset or resource. Let's take a look at recent trends in the nearby future that have the potential to change the industry.

The course deals with the production of energy from different types of wastes (domestic and industrial waste) through thermal, chemical, and biological routes. It is intended to help the young scientific professionals engaged in various industries, environmental management, academic, research, entrepreneur, etc. by keeping their knowledge upgraded with the emerging research and technological developments in the field for the utilization of various types of wastes for green energy production.

## Highlights

- Opportunities for scientific waste management and energy production from various kinds of waste
- Scientific management and Energy production from Industrial Waste (Mining, Mineral processing, Thermal power plants, steel plants, etc.)
- Energy production through incineration, pyrolysis, and gasification of wastes, syngas utilization
- Energy production from waste plastics, gas clean-up
- Energy production from municipal solid waste, e-waste, biomedical waste, etc.
- Selection of disposal site for waste using remote sensing & GIS
- Economics & employment generation through waste utilization
- Government regulation and policy
- Life Cycle Assessment
- Interaction with a successful entrepreneur/s
- Case Study and prototype experiments
- Lab demonstration for waste to energy and scientific waste management (recovery, recycle, energy production etc.) etc.



## About IIT(ISM), Dhanbad

The Indian Institute of Technology (ISM), Dhanbad constituted under Institute of Technology Act, 1961 is administered through IIT Council-the apex body, Government of India under the Chairmanship of Honorable Minister, MoE for uniform and smooth governance of Pan-IIT in the country.

Vision and mission of the institute are to be a nationally and internationally acclaimed premier institution of higher technical and scientific education with social commitment having an ethos for intellectual excellence, where initiative is nurtured, where new ideas, research and scholarship flourish, where intellectual honesty is the norm and from, which will emerge the leaders and innovators of tomorrow in the realm of technology.

Situated in the heart of the country's prime coking coal belt, 260 kms from Kolkata with a campus spread over an area of 393 acres (with 218 acres of existing campus and 175 acres under acquisition

and development), the fully residential IIT (ISM) has all the facilities of world class academic institute. What started as an institution to impart mining education has graduated into a full-fledged technical institution of international acclaim offering a host of programmes like B. Tech., M. Tech., M. Sc., M. Sc. Tech., MBA and PhD. Current NIRF ranking of the institute among all the engineering colleges is 11.

## About the Department

The Centre of Mining Environment (CME) is one of the Centre of Excellence established by The Ministry and Environment & Forest and Climate Change (MoEF& CC), Govt. of India in 1989. The Department of ESE was carved out of CME in 2006, and started B.Tech (Environmental Engg) under IIT-JEE. The Department also offers a regular M.Tech program in Environmental Science & Engineering (since 1990) apart from Ph.D program in Environmental Science and Environmental Science and Engg. The students of the Department have been well received by the industries like CIL, BCCL, ECL, CCL, NCL, MCL, SECL, CMPDIL, WCL, SCCL, Sterlite, HCL, HZL, NALCO, BALCO, NTPC, L&T, Asian Paints and many other esteem companies along with regulatory authorities like MoEF& CC, CPCB, SPCBs, Research Organizations (CSIR Labs, CIMFR, RRLs) & academic institutes (IITs, NITs, ISMU, etc.), Consultancy Organizations & NGOs. The Department is equipped with sophisticated equipment to cater the needs of research, like AAS, HPLC, GC, Microwave digester, GC-MS, Spectrophotometer, Universal Trinocular Research Microscope, PCR etc.

## Resource Persons

Faculty members of IITs, guest faculty members from other premier Institutions/Organizations, and personnel from various leading Industries, Entrepreneurs, etc. will deliver the lecture.

## Target Participants

Executives engaged in industries, maintenance, planning, environmental management, Executives from Pollution Control Board, academic, research, entrepreneur, etc.

## Important Dates

Last date for Registration: July 11, 2022

Intimation of Selection: July 13, 2022

(Selection will be based on first cum first served basis from priority)

## How to apply

Applicants are requested to register online through the registration link (Google form) given below or send the hardcopy/scan copy of the filled registration form along with the course fee through DD/RTGS the Demand Draft/ proof for online transfer by speed post/scanned copy by e-mail to the Course Coordinator. The Demand Draft should be drawn in favor of "The Registrar, IIT (ISM) Dhanbad" payable at Dhanbad.

## Registration Link



[CLICK HERE](#)

## Nomination & Payments

The nomination letter should reach the coordinator on or before July 11, 2022 (Google form/e-mail/post) along with the course fee through DD/RTGS.

## Course Fee

Number of participants will be registered on the basis of first-come first-serve.  
The details of registration fees for each category are as follows:

- INR 30,000 (for Indian Nationals)
- INR 15,000 (for Students & Research Scholars of Indian Nationals with valid proof)
- USD 400 (for Foreign Nationals)
- USD 300 (for Nationals from SAARC countries & student of Foreign Nationals)

The above fee is per participant inclusive of GST @18%. This will include registration, course materials, tea & snacks, and working lunch. The participants have to make their own lodging arrangements in Kolkata.

## Bank Details for Online Transfer

Bank: Canara Bank IFSC code: CNRB0000986  
Branch: Saraidhela, Dhanbad RTGS: CNRB 0000986  
A/c No: 0986101024892 MICR 826015003



A copy of the e-payment transaction details is requested to be sent to the course coordinator.  
IIT (ISM), Dhanbad, being an educational institute, is exempted from Income Tax. PAN No. of IIT (ISM): AAAA10686D; GST No. is GSTIN: 20AAAAI0686D1ZA.



### Venue

ISM-Kolkata Centre,  
NBCC Shopping Centre (2nd Floor),  
New Town, Rajarhat, Kolkata

## Address for Correspondence

**Dr. Vipin Kumar**  
Course Coordinator  
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Course Co-coordinator  
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Department of Environmental Science & Engineering  
Indian Institute of Technology (ISM), Dhanbad -826004 (Jharkhand) INDIA

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**Registration Form**

1. Name: ( Capital Letters)

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2. Organisation: .....

3. Designation:.....

4. Category: (Industry / Academic / Student).....Gender (M/F).....

5. Mailing Address .....

.....

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6. E-mail Address.....

Mobile.....Telephone.....

7. Payment Details :

Payment enclosed (DD No. ....Date.....

Amount.....)

8. Details of Online transfer (Please attach proof for online transfer).....

Place :

Date

Signature

Note: Last date of Application is July 15, 2022. Send the filled registration form as scanned copy by  
e-mail (vipinmicro1@iitism.ac.in; vipinmicro1@gmail.com).