

**Diamond Jubilee Programme 2019-20**  
**Department of Metallurgical & Materials Engineering**



**TEQIP-III Sponsored  
Short Term Course on**  
***Waste to Wealth- The Current  
Scenario and Sustainable Technology  
(WTW-2020)***

**January 20-24, 2020**



# BACKGROUND

- ❖ The outcome of human activities and its growth is generation of different kinds of waste. Urban and rural areas of India produce so much garbage daily and suffering by many types of pollutions which are increasing very fast in terms of area and environment.
- ❖ People are suffering from air pollution, water pollution and soil pollution even they involve to through the garbage anywhere. People want their neat and clean environment even they don't know how to get it.
- ❖ Waste generally include solid waste of all kinds, waste water and other types of liquid waste. The generation of municipal solid waste is about 62million tones a year from urban areas.
- ❖ Industries are trying to have zero discharge to maximize their profit.
- ❖ Suitable technologies have to be thought over to tide over the crisis before time runs out.

# ABOUT THE COURSE



❑ The word *Green* which is used frequently is of utmost important to the recovery of useful materials and leading to zero waste in the limit. Through this concept it may treat and safely dispose waste to prevent ecological degradation.

❑ Reducing, Reusing, Recycling and Recovering of waste behavior can make changes our environment.

❑ The proposed short term TEQIP III sponsored courses will be devoted to review the recent advances and the new research and development initiatives in this directions. Special emphasis will be laid on Indian scenario and policies.

# COURSE CONTENT

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- A blue garbage truck is shown from a high angle, dumping its load into a large, sprawling pile of mixed waste. The truck's rear is tilted, and a stream of trash is falling from its chute. The background is a hazy, overcast sky. The overall scene is a typical municipal solid waste management site.
- **Municipal Solid waste management**
  - **E-waste management**
  - **Water Resources and Effect of Climate Change**
  - **Constructed Wetlands Technology for Waste Water Treatment**
  - **Sustainability of Waste to Energy Technologies**
  - **Composting of Waste**
  - **Hazardous Waste Management**
  - **Air and Noise Pollution**
  - **Circular Economy-a New Paradigm of Waste Management**
  - **Groundwater- Sources of Contamination and Treatment**
  - **Role of Algae in Pollution Treatment**
  - **Conversion of Biomass to Biodiesel**
  - **Integrated Steel Plant Waste- Reuse and Disposal**
  - **Recycling and Utilization of Non Ferrous Industry Waste Materials**
  - **Policies in Waste Management**

# ABOUT THE INSTITUTE



National Institute of Technology Durgapur (NITD) is a leading technical institute offering undergraduate, postgraduate and doctoral programs in various disciplines of engineering, technology, science, social science and management studies. The education system is holistic with equal importance being attached to all-round development of students. NITD was established as a Regional Engineering College Durgapur (RECD) in 1960 as a joint venture of the Government of India and Government of West Bengal. REC Durgapur was converted to NIT Durgapur under the full administrative and financial control of the Ministry of Human Resource Development of Government of India with a Deemed University status on 3rd July, 2003. Subsequently NITD has been given the status of a University by the UGC Act. The Institute was declared an Institute of National Importance by the Government of India on August 15, 2007. In this year institute is celebrating Diamond Jubilee.

The city of Durgapur was the dream industrial city of Late Dr. Bidhan Chandra Roy the Former Chief Minister of West Bengal. Situated on the banks of river Damodar, the city boasts of Integrated Steel Plant and Alloy Steels Plant owned by SAIL. Durgapur is about 180 KM far away from Kolkata. Santiniketan the abode to Rabindranath Tagore, Bishnupur-famous for Teracotta Handicrafts are nearby tourists spots.

# ABOUT MME DEPARTMENT



The Department, which started its journey in the year 1960, presently offers B.Tech. (Metallurgical and Material Engineering), M.Tech. (Metallurgy and Materials Technology) and Ph.D Programme. The Department maintains high level of interactions with other academic institutes such as IIT Kharagpur, Jadavpur University, IEST Shibpur and NIFFT Ranchi, CSIR Laboratories, and SAIL.

# OTHER INFORMATION

Last Date of Submission of Application: **16/01/2020**

Notification of Selection (by E-mail): **17/01/2020**

## REGISTRATION PROCEDURE

Duly filled-in “Registration Form forwarded by the competent authority should reach the following address on or before **16.01.2020** along with the demand draft ( ORIGINAL) drawn in favor of “**CEP NIT Durgapur**” payable at Durgapur.

Address: **Coordinator WTW-2020, Department of Metallurgical and Materials Engineering, National Institute of Technology Durgapur, Mahatma Gandhi Avenue, Durgapur- 713209, West Bengal**

## REGISTRATION FEE

Persons from Industry: **Rs. 5000/-**

Persons from Academia and R & D organization: **Rs. 3000/-**

Student: **Rs. 1000/-**

(Inclusive of Course Kit and refreshment)

**Schedule:** One week, 20<sup>th</sup> -24<sup>th</sup> January, 2020

(10AM – 05:30PM)

**Venue:** NIT Durgapur - Golden Jubilee Seminar Hall, MME Department,

**ACCOMMODATION:** Limited shared accommodation will available on first cum first service basis for registered participants in institute guest house at standard applicable rate.

# RESOURCE PERSONS

- Mr. M. V. Chary, President, Jindal Urban Waste Management.
- Prof. Jayanta Bhattacharyya, Mining Engineering & Chairman, Environmental Science and Engineering, Committee of Faculty, IIT Kharagpur
- Dr. Sudha Goel, Civil Engineering, Environmental Science and Engineering, IIT Kharagpur
- Dr. Asheesh Yadav, Principal Scientist, Environment & Sustainability Department, IMMT Bhubaneswar
- Dr. Brajesh Dubey, Civil Engineering & P. K. Sinha Centre for Bioenergy and Renewables, IIT Kharagpur
- Dr. Shamik Choudhury, Environmental Science and Engineering, IIT Kharagpur
- Prof. Pankaj Kumar Ray, Dean, Faculty of Interdisciplinary Studies, Law & Management; Professor & Joint Director, School of Water Resources Engineering; Director, School of Environmental Studies; Jadavpur University
- Dr. Anupam Debsarkar, Civil Engineering, Jadavpur University
- Dr. Rita Saha, Scientist-D, Central Pollution Control Board, Eastern Zonal Office, Kolkata
- Mr Asok Majumdar, General Manager, Environment Control Department ,SAIL-DSP
- Prof. Kalyan Adhikari, Earth & Environmental Studies Dept., NIT Durgapur
- Prof. Parimal Pal, Chemical Engineering Dept., NIT Durgapur
- Prof. Susmita Dutta, Chemical Engineering Dept., NIT Durgapur
- Prof. Gopinath Halder, Chemical Engineering Dept., NIT Durgapur
- Dr Arup Kumar Mondal, MME Department , NIT Durgapur



## **ABOUT THE CO-ORDINATOR**

▪Dr. Susanta Pramanik has been working in MME Department for last ten years. His research interest is Management and Utilization of Solid Waste of Integrated Steel Plant, Agglomeration of Fines, Mineral Beneficiation, Cold Modeling of Iron & Steel Making and Statistical Analysis.

▪Dr. Krishna Priya Yagati has been working in MME Department since last year. Her research interest is Joining of Metals and Additive Manufacturing.

### **Contact Details:**

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Mobile No.- 9434789041

**Short Term Course on  
Waste to Wealth: The Current Scenario and Sustainable Technology (WTW-2020)  
January 20-24, 2020  
Registration Form**

Name (Block Letters):.....  
Designation:.....Organization:.....  
Address for communication:.....  
.....Pin Code:.....  
Mob. No.:.....E-mail:.....  
Qualification:.....Specialization:.....  
Accommodation required (Yes/No):.....  
DD No. & Date:  
Bank :  
Amount :

Signature of the applicant

Signature with date of Sponsoring Authority

(Name of the Applicant)

Designation:

Place:

Official Seal

Date:

TEQIP III Sponsored Short Term Course  
**Waste To Wealth – The Current Scenario & Sustainable Technology**  
MME Department, NIT Durgapur, January 20-24, 2020  
**Schedule of Lectures**  
**Venue: Golden Jubilee Seminar Room, MME Department**

Day	Morning Session		Afternoon session	
	10:00AM -11:30AM	11:45AM-1:15PM	2:00PM-3:30PM	3:45PM-5:15PM
20 <sup>th</sup> January, 2020	Inauguration	Mr. M.V Chari President Jindal Urban Waste Management <i>Municipal Solid Waste Management to Avoid Waste Dumps- Suitable to Indian Conditions</i>	Prof Parimal Pal Chemical Engg Deptt, NIT Durgapur	Prof Kalyan Adhikary H.o.D EES Department, N.I.T Durgapur <i>Ground Water Contamination</i>
21 <sup>st</sup> January, 2020	Prof Sudha Goel Deptt of Civil Engg and SESE IIT Kharagpur <i>Composting of Waste</i>	Dr. Shamik Chowdhury School of Environmental Science and Engineering (SESE) IIT Kharagpur <i>Utilization of Food Waste-Prospects and Remedial Action</i>	Prof Sudha Goel Deptt of Civil Engg and SESE IIT Kharagpur <i>E-waste Management</i>	Prof G. Halder H.o.D Chemical Engg Deptt, NIT Durgapur <i>Conversion of Biomass to Bio Reserve</i>
22 <sup>nd</sup> January, 2020	Prof Anupam Debsarkar Environmental Engineering Division Department of Civil Engineering Jadavpur University <i>Noise and Air Pollution</i>	Prof Pankaj Kumar Ray Professor & Joint Director School of Water Resources Engineering Director School of Environmental Studies Jadavpur University <i>Water Resources and Effect of Climate Change</i>	Prof Anupam Debsarkar Environmental Engineering Division Department of Civil Engineering Jadavpur University <i>Hazardous Waste Management</i>	Dr Arup K.Mandal MME Deptt, N.I.T Durgapur <i>Recycling of nonferrous industry Waste materials</i>
23 <sup>rd</sup> January, 2020	Prof Susmita Dutta Chemical Engg Deptt, NIT Durgapur <i>Role of Algae in Pollution Treatment</i>	Prof Jayanta Bhattacharya Mining Engg and SESE, IIT Kharagpur <i>Sustainability of Waste to Energy</i>	Prof Brajesh Dubey Deptt of Civil Engg, IIT Kharagpur <i>Circular Economy-a New Paradigm of Waste Management</i>	Mr Asok Majumdar General Manager, SAIL-DSP <i>Recycling and Utilization of Integrated Steel Plant Waste Materials</i>
24 <sup>th</sup> January, 2020	Dr Ashish Yadav Scientist-D Environment and Sustainability Deptt IMMT Bhubaneswar <i>Constructed Wetlands Technology for Waste Water Treatment</i>	Dr. Rita Saha Scientist-D Central Pollution Control Board, Eastern Zonal Office , Kolkata <i>Waste Management- Regulatory Issues and Government Policies</i>	Prof Anil Kumar Dikshit Professor, Environmental Science and Engineering Department Indian Institute of Technology Bombay <i>Environmental Systems Modelling &amp; Optimization</i>	Valedictory

Break

Lunch