

# **Eligibility Criteria for Participants**

- Faculty members in Central, State, Deemed to be Universities, Private Universities, Institutions of National Importance, Colleges and other HEIs.
- Faculty members from HEIs under various Professional Councils (AICTE, etc.)
- Contractual, Ad-hoc, Guest faculty Teachers, Tutors and Demonstrators in HEIs.

## **Registration Process**

- i. The participants should first register at https://mmc.ugc.ac.in/
- ii. After logging in as participant, from the dashboard participants should click on "Apply for the "Guru Dakshta (FIP), Refresher Course and Short Term Programme / Faculty Development Programme."
- iii. Next, in the application form, select "Short Term Programme / Faculty Development Programme" and select "IIT Dhanbad (ISM)" as the program center and complete the application form.
- iv. Last date for registration: September 20, 2024.

For detailed guidelines on the MMTTP, please visit the following link: https://mmc.ugc.ac.in/





Programme Coordinators

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SIX-DAY SHORT-TERM PROGRAM ON

# HIGH-EFFICIENCY, LOW-EMISSIONS CLEAN COAL AND CARBON CAPTURE, UTILIZATION AND STORAGE TECHNOLOGIES

September 23-28, 2024

Under the aegis of

MALAVIYA MISSION TEACHER TRAINING PROGRAMME (MMTTP)

Venue: IIT (ISM) Dhanbad



Organized by



Dept. of Chemical Engineering & Dept. of Mechanical Engineering IIT(ISM) DHANBAD Dhanbad-826004, Jharkhand, India

https://mmc.ugc.ac.in/



### About the STP



The primary objective of this six-day program is to disseminate recent developments in the field of HELE clean coal and CCUS technologies to fill out the knowledge gaps the participants have and help them stay ahead of the curve. The course also aims to offer the participants an unprecedented opportunity and a competitive edge to learn from the leaders of the field with a platform for exchanging ideas with experts across the country, ultimately leading to scientific and technological development through collaborations.

After the successful completion of the course, the participants will not only be able to identify the current needs and gaps in these areas but will also be able to formulate novel approaches to address major problems and become adept to the changing trends in the field.

# Program Highlight

- Multi-disciplinary in nature
- Offline mode of training
- For faculty members
- Six days, 36 contact hours
- In-depth knowledge-sharing platform on current state-of-theart HELE clean coal and CCUS technologies
- Case studies and Industrial visit
- Soft copy of study materials
- Certificate upon successful completion
- No TA/DA for participants

# **Course Content**

- Introduction to fossil fuels and their role in emissions and climate crisis.
- Clean coal science & technology.
- Clean energy through coal combustion and gasification.
- Carbon capture, utilization and sequestration.
- · HELE coal combustion and power generation technology.
- Introduction to ASPEN PLUS and IECM software.

## Course Instructors

Faculty members from various IITs, NITs & Universities and research scientists and executives from reputed national R&D organizations and industries.

#### Venue

Indian Institute of Technology (ISM) Dhanbad, Jharkhand - 826004

# About the Institute



The Indian Institute of Technology (Indian School of Mines) constituted under the Institute of Technology Act, 1961, is administered through IIT Council - the apex body, Gol for uniform and smooth governance of Pan-IIT in our country. The academic profile of the Institute changed over the time to keep abreast with the technological challenges and societal aspirations. The Institute has been in service of the nation, contributing immensely to nation-building for almost a century.

At present, the Institute has 17 departments and several centres, which are equipped with all necessary infrastructure and world-class faculties to undertake all kinds of fundamental and applied research problems. For further details, please visit: https://www.iitism.ac.in/

## **About the Departments**



# **Department of Chemical Engineering**

Since its inception in 2010, the Department of Chemical Engineering has aimed to instil in all the students the essential skills of critical thinking and creative problemsolving for their success in the practice of chemical engineering. The department offers academic and research programs leading to B.Tech, M.Tech and PhD degrees. Many of the graduated students are placed in reputed national and multinational organizations. A substantial number of the students are also engaged in higher studies and research in reputed institutes in India and abroad.

## **Department of Mechanical Engineering**

The Department of Mechanical Engineering started its journey in 1999. Presently, the department has 46 faculty members. The department offers two UG courses (Mechanical Engineering, and Mining Machinery Engineering), and PG courses in Thermal, Design, and Manufacturing specializations. Faculty members of the department have guided more than 200 PhD students so far. Major research areas of the department are microfluidics, aero-acoustics, biomechanics, robotics, renewable energy, tribology, refrigeration, CFD, fluid-structure interactions, turbomachinery, modern-manufacturing, fluid power, mining machinery along with conventional thermal engineering and machine design.

