

One week Faculty Development Program
on

**“Intelligent Mechanical Engineering:
Energy, Automation and Smart
Production”**



Host: **Haldia Institute of Technology**

Department of **Mechanical Engineering**
Haldia, Purba Medinipur
West Bengal, India Pin: 721657

Date: **16th March-20th March, 2026**
Time: **7:00 PM onwards**

About The Institute

Haldia Institute of Technology (HIT), a premier institute, in the state of West Bengal, India was established in the year 1996. HIT is the oldest of the institutes of ICARE, Haldia. HIT has become an autonomous in statute in the year of 2019 and is affiliated to MAKAUT. The institute is approved by AICTE and is accredited by NAAC (A graded).

The Institute is located in the city of Haldia, one of the prominent hubs for engineering industries in Eastern India. It boasts of a beautiful campus spread across 50 acres having administrative and academic blocks, and residential facilities of students and employees.

Since inception, HIT Haldia remained dedicated to carve out highly trained professional manpower in various disciplines of engineering, technology and management from young inquisitive minds. The institute also focused to contribute in research and development and be in the centre stage of technological entrepreneurship.

About The Department

The department of Mechanical Engineering has started its journey in the year 2000. The department has been accredited by NBA, Tier-I. Presently the department conducts undergraduate and post - graduate courses in Mechanical Engineering. The department aims to create a vibrant atmosphere for fostering pedagogy and research as well as professional growth of all of its stakeholders.

Objectives of the FDP

- Provide the latest research findings and technological advancements in materials science relevant to mechanical engineering.
- Equip faculty with innovative teaching strategies that can effectively convey complex materials science concepts.
- Foster partnerships between academia and industry to ensure that curricula align with current industry needs.

Targeted Participants

Faculty members of the AICTE approved institutions, research scholars, PG Scholars and participants from Industry.

Eminent Resource Person

Dr. D. K. Pratihari

Professor of Mechanical Engineering Department, Indian Institute of Technology Kharagpur.

Dr. Pallab Banerji

Professor of Mechanical Engineering Department, Indian Institute of Technology Kharagpur.

Dr. Pradip Kumar Ray

Ex. Prof. Department of Industrial and System Engineering IIT Kharagpur

Dr. Arijit De

Associate Professor, Department of E and ECE, Indian Institute of Technology Kharagpur.

Dr. Sudip Misra

FACM, FIEEE, FAAIA, FNAE, FNASc, FIET, INAE Chair Professor in the Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur.

Theme of FDP

The theme of the FDP focuses on the integration of smart energy systems, Artificial Intelligence, Machine Learning, Industrial IoT, Robotics, and Advanced Production Technologies to transform modern mechanical engineering practices. It aims to explore how thermoelectric energy solutions, AI-driven automatic intelligent manufacturing systems, and digital industrial applications are reshaping traditional mechanical engineering into a smart, sustainable, and Industry 4.0 oriented discipline.

Major Topics

1. Fundamentals of Thermoelectric Materials and Thermoelectric Generators.
2. Smart Energy Harvesting and Sustainable Energy Systems.

3. Industrial Internet of Things (IIoT) in Manufacturing and Industrial Applications.
4. Artificial Intelligence and Machine Learning Applications in Mechanical Engineering.
5. VLSI Concepts for Smart Sensors and Embedded Industrial Systems.
6. Robotics and Intelligent Automation in Production Systems.
7. Advanced Manufacturing and Smart Production Technologies.
8. Digital Twins and Cyber-Physical Systems in Industry 4.0.
9. Data-Driven Decision Making in Industrial Engineering.
10. Recent Trends in Industry 4.0 and Smart Mechanical Systems.

Important Dates

FDP Date: 16th March-20th March, 2026 (Online)

Registration ends: 14th March, 2026.

Registration Details

Registration details for students, academicians and industry persons can be found in the following link:

How to Register

Interested participants may apply through online registration link:

<https://forms.gle/FYUnJeput5rccVkFA>

No registration fee will be charged from the participants.

Participant's registration will be confirmed on first come first serve basis.

Certificate will disburse based on the norms of the Institute.

Requirements to get E-Certificate

Minimum 80% attendance is required for the whole course.

Minimum 60% marks should be obtained in the Final test to be conducted online at the end of FDP.

Advisory Committee Members

Dr. Lakshman Chandra Seth, D.Litt, Chairman, ICARE
Sri Asish Lahiri, Secretary, ICARE
Sri Sayantan Seth, Vice-Chairman, ICARE
Sri Sudiptan Seth, Member BOG, ICARE
Prof.(Dr.) Tarun Kanti Jana, Principal, HIT Haldia
Dr. Anjan Mishra, Registrar General, HIT Haldia
Prof.(Dr.) Dilip Dey, Dean, School of Engg, HIT Haldia
Prof.(Dr.) Goutam Kumar Bose, HOD, ME
Dr. Debasish Das, Manager Administration, HIT Haldia

Coordinators

Prof. (Dr.) Bikash Bepari, Professor, ME
Prof. (Dr.) Balaram Dey, Professor, ME

Convener

Mr. Pritam Pain, Assistant Professor, ME
Contact number: +91 9836584808
Email: Pritam.me.dscsdec@gmail.com

Organizing Committee

Dr. Debashis Das Adhikari
Dr. Nilabha Shankar Mitra
Dr. Supriyo Roy
Dr. Abhishek Samanta
Dr. Ashok Kumar Bera
Dr. Abhijit Saha
Dr. Premangshu Mukhopadhyay
Dr. Bipradas Bairagi
Dr. Manas Kumar Bhukta
Dr. Sourav Pattanayak
Mr. Nirmalya Bayal
Mr. Sourav Sarkar
Mr. Souvik Gantait
Mr. Satyajit Chatterjee
Mr. Soumik Dutta
Dr. Prabir Kumar Kar
Dr. Sandip Mondal
Dr. Rahul Das
Dr. Pradip Mondal
Dr. Soumyajit Roy
Dr. Sourav Ganguli