

## About Electronics & ICT Academy at PDPM IIITDM Jabalpur

The Ministry of Electronics and Information Technology (MeitY), Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. In addition to the faculty development programmes (FDPs) on fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized training programmes for students, corporate sectors and research promotion workshops in emerging areas. The Academy is identified by the MeitY as the central hub of activities on training, internships, research, and consultancy programmes.

## About PDPM IIITDM Jabalpur

PDPM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT-enabled Design and Manufacturing. Since its inception, PDPM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution to India's mission of inclusive and sustainable growth. The Institute offers undergraduate, postgraduate and PhD programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Further, the Institute offers an undergraduate programme in Smart Manufacturing. Under IIIT act, the Institute has been declared as an Institute of National Importance. The Institute campus is developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 kms from the main railway station and 5.5 kms from Dumna Airport, Jabalpur.

## Faculty Development Programme

### Biomimicking Techniques and CFD Simulation in Engineering

The course on Biomimicking Techniques and CFD Simulation in Engineering is designed to equip participants with a comprehensive understanding of advanced computational fluid dynamics (CFD) methods and their integration with biomimetic design principles. It explores recent advancements in numerical techniques, turbulence modeling, and high-performance computing, while highlighting how nature-inspired approaches can enhance engineering solutions. The program focuses on bridging the gap between theoretical developments and practical, real-world applications across diverse engineering domains.

**Who can attend:** The programme is open to faculty members, research scholars, postgraduate and undergraduate students, as well as industry professionals working in related domain.

### Important Dates:

**Last Date of Online Registration: June 26, 2026**

**FDP Dates: June 29 - July 04, 2026**

### Coordinators:

**Dr. Manish Kumar Thakur**  
PDPM IIITDM Jabalpur

**Dr. Parikshit Kundu,**  
IIEST Shibpur

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## Faculty Development Programme

### Biomimicking Techniques and CFD Simulation in Engineering

**June 29 - July 04, 2026 (Online mode)**



## Electronics and ICT Academy, Phase II



*An Initiative of  
Ministry of Electronics and Information Technology,  
Government of India*



PDPM Indian Institute of Information Technology,  
Design and Manufacturing, Jabalpur  
Dumna Airport Road, Jabalpur 482005

## Faculty Development Programme

### Biomimicking Techniques and CFD Simulation in Engineering

**June 29 - July 04, 2026 (Online mode)**

#### Resource Persons

- Dr. Kiran Raj (IIT Madras)
- Dr. Kaustav Pradhan (IIEST Shibpur)
- Dr. Jayabrata Dhar (NIT Durgapur)
- Dr. Mayank Verma (University of Iowa)
- Dr. Gaurav Sharma (BITS Pilani)
- Dr. Avinash Kr. Pandey (Johns Hopkins University)
- Dr. Manish Kumar Thakur (PDPM IIITDM Jabalpur)
- Dr. Parikshit Kundu (IIEST Shibpur)

Sessions will also be delivered by eminent experts from IITs, NITs, IIITs, and industry, bringing valuable academic and industrial perspectives.

#### COURSE COORDINATORS

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## Course Contents and Hands-On Sessions

- Introduction to Biomimicry in Engineering
- Basics of Fluid Mechanics for Biomimetic Systems
- Introduction to CFD (Computational Fluid Dynamics)
- Geometry Modeling of Biomimetic Structures
- Meshing Techniques for Complex Biomimetic Designs
- CFD Simulation of Biomimetic Systems
- Advanced Turbulence Modeling and Flow Control
- Bio-Inspired Materials and Surface Engineering
- Case Studies and Applications
- Optimization and Design Improvement
- High-Performance Computing for CFD
- Validation, Verification, and Uncertainty Analysis
- Emerging Trends and Research Directions

## Programme Features

- To introduce to biomimicry in Engineering
- To enhance the expertise in fluid dynamics simulations.
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions with online (live streaming) sessions.
- Certificate on successful completion of the course.

## Registration Details

- Registration link – Please fill out registration using the following link:  
<https://forms.gle/5gJh1g7G4oFz6no29>
- The registration fee is ₹500 for national and \$60 USD for international participants.
- Last Date for Registration: June 26, 2026

## Online Payment Details

- **Internet banking**

Beneficiary Name	PDPM IIITDM Jabalpur
Bank Name	INDIAN BANK
A/C No.	50018692852
IFSC Code	IDIB000M694

- **UPI ID: [iiitdmj@indianbk](mailto:iiitdmj@indianbk)**
- **QR**

