

Faculty Development Programme

(November 02, 2026 – November 13, 2026)

ONLINE FACULTY DEVELOPMENT PROGRAMME

ON

“Engineering Design and Smart Manufacturing of Implants and Medical Devices: Industry 4.0 and Beyond”

(November 02, 2026 – November 13, 2026)

SUPPORTED BY

Electronics and ICT Academy Phase II,
PDPM IIITDM Jabalpur
(An initiative of MeitY, Govt. of India)



ORGANISED BY

Biomaterials and Biomanufacturing Laboratory,
PDPM Indian Institute of Information Technology, Design
and Manufacturing, Jabalpur, Madhya Pradesh, India 482005

www.iiitdmj.ac.in



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ABOUT THE PROGRAMME

The Faculty Development Program on “Engineering Design and Smart Manufacturing of Implants and Medical Devices: Industry 4.0 and Beyond” aims to empower academicians, researchers, and professionals with cutting-edge knowledge and skills at the intersection of biomedical engineering, advanced manufacturing, digital technologies, and healthcare innovation. The program envisions fostering a new generation of educators and researchers capable of driving transformative advances in personalized healthcare through intelligent design, additive manufacturing, artificial intelligence, digital twins, and smart materials. By bridging fundamental engineering principles with emerging Industry 4.0 and Industry 5.0 paradigms, the FDP seeks to promote interdisciplinary collaboration, translational research, and industry-academia partnerships that accelerate the development of safe, effective, and patient-specific medical devices and implants for the future of healthcare.

PATRON

Prof. Bhartendu K. Singh

Director,
PDPM IIITDM Jabalpur, Madhya Pradesh, India

COORDINATOR

Prof. Himansu Sekhar Nanda

Mechanical Engineering Discipline,
PDPM IIITDM Jabalpur, Madhya Pradesh, India
President, Sustainable Biomanufacturer and Research Society
(SBRS)

himansu@iiitdmj.ac.in

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ABOUT ELECTRONICS & ICT ACADEMY AT PDPM IIITDM JABALPUR

The Ministry of Electronics and Information Technology (MeitY), Government of India, instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM Indian Institute of Information Technology, Design and Manufacturing, 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 FDPs on fundamental and advanced topics in electronics and 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 Indian Institute of Information Technology, Design and Manufacturing, Jabalpur was established in 2005 with a focus on education and research in IT-enabled design and manufacturing. The Institute offers UG, PG, and PhD programs in computer science and engineering, electronics and communication engineering, mechanical engineering, and design, and PhD programs in mathematics, physics, and literature. The Institute has been declared an Institute of National Importance. The institute campus is developed on 250 acres of land near the airport in Jabalpur.

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PROGRAMME FEATURES

- Expert lectures by leading academicians, clinicians, and industry professionals.
- Academic and Research Engineering design and development of next-generation implants and medical devices.
- Industry–academia interaction and collaborative research opportunities.

LIST OF CONFIRMED RESOURCE PERSON

- Prof. R. Jayaganthan, Indian Institute of Technology, Madras, India
- Prof. Kantesh Balani, Indian Institute of Technology Kanpur, India
- Prof. Ramkumar J., Indian Institute of Technology Kanpur, India
- Prof. Renu John, Indian Institute of Technology Hyderabad, India
- Prof. Cheruvu Siva Kumar, Indian Institute of Technology Kharagpur, India
- Prof. Arnab Chandra, Indian Institute of Technology, Delhi and AIMS New Delhi, India
- Prof. A M Kuthe, National Institute of Technology, Nagpur, India
- Dr. Jitender Kumar Tiwari, Indian Institute of Information Technology Design and Manufacturing Jabalpur, India
- Prof. Puneet Tandon, Indian Institute of Information Technology Design and Manufacturing Jabalpur, India
- Dr. Himansu Sekhar Nanda, Indian Institute of Information Technology Design and Manufacturing Jabalpur, India

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COURSE CONTENTS OF FDP

The FDP will explore the complete product development cycle of medical devices and implants, encompassing engineering design, biomaterials selection, biomechanics, computational modeling, and advanced manufacturing techniques. Special emphasis will be placed on additive manufacturing, digital manufacturing ecosystems, smart factories, Industry 4.0 technologies, artificial intelligence, IoT-enabled healthcare solutions, and digital twins for intelligent product development. Through expert talks, industrial case studies, and practical sessions, the FDP aims to bridge the gap between academia, healthcare, and industry, fostering innovation and accelerating the development of safe, smart, and patient-specific medical technologies.

PARTICIPATION ELIGIBILITY

- The programme is open to the faculties from all technical and professional universities/institutes.
- UG/PG students, Ph.D. scholars, researchers, and professionals from research organizations and industries working in allied disciplines can also attend.
- Certificates will be issued on successful completion of the course with 80% attendance (attendance will be recorded via Zoom Platform).

IMPORTANT DATES

Registration Open: August 15, 2026

Last Date of Registration: October 31, 2026

FDP Dates: November 02–13, 2026

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REGISTRATION DETAILS

- Please fill out registration using the following link:
<https://forms.gle/nxKpYG7WomFddri8>
- Registration fee is ₹500 for national and \$60 USD for international participants.
- Pay the registration fees using following details:

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



UPI ID: iiitdmj@indianbk

CONTACT US

Mr. Hakam Singh Diwakar

Doctoral Student, MED, PDPM IIITDM Jabalpur
24PMEE01@iiitdmj.ac.in; +91-9691684444

Mr. Durgesh Kushwaha

E&ICT Academy, PDPM IIITDM Jabalpur
academy@iiitdmj.ac.in, eict@iiitdmj.ac.in,
 +91-7898670354

Dr. Aman Singh Rajpoot

Post-Doctoral Fellow, IIT Kharagpur
asrajpoot@che.iitkgp.ac.in; +91-9171553519