

About Electronics & ICT Academy at PDPM IITDM 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 IITDM 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. The Academy is identified by the MeitY as a hub of activities for capacity building through training, internships, research, and consultancy programmes in fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized academic programmes for students, corporate sectors and researchers.

About NIT Jamshedpur



The National Institute of Technology (NIT) Jamshedpur is one of India's premier technical institutions, established in 1960 as the Regional Institute of Technology (RIT), Jamshedpur. It was accorded the status of a National Institute of Technology in 2002 and is recognized as an Institute of National Importance under the National Institutes of Technology Act, 2007. The Institute is funded by the Government of India through the Ministry of Education. NIT Jamshedpur offers undergraduate, postgraduate, and doctoral programs in engineering, science, management, and humanities. The Institute is committed to excellence in education, research, innovation, and entrepreneurship, with state-of-the-art laboratories, modern research facilities, and strong collaborations with academia, industry, and research organizations.

Faculty Development Programme On

Healthcare Analytics and Artificial Intelligence: Current Applications and Future Directions

The FDP aims to provide participants with a comprehensive understanding of the role of Artificial Intelligence (AI) in modern healthcare. The program will cover emerging AI technologies, their real-world applications in diagnosis, treatment, healthcare management, and future trends shaping the medical domain. It also emphasizes AI's role in revolutionizing diagnostics, treatment personalization, predictive analytics, and medical education, covering machine learning, deep learning, and ethical considerations. Participants gain hands-on experience with tools for healthcare data analysis and AI-driven decision support. So, main motive of this Course is to provide the complete application of AI in healthcare, such as disease diagnosis and Treatment.

Who can attend: Suitable for faculty from colleges, universities, and technical and professional institutes, researchers, and industry personnel working in allied disciplines. Selection will be made on the first-come-first-serve basis to a maximum number of 50.

Important Dates:

Last Date of Online Registration: 02-10-2026

FDP Dates: 09-13 October 2026

Coordinators:

- Dr. Diwakar Prasad Tripathi,
Assistant Professor, Dept. of CSE, NIT Jamshedpur
- Dr. Ranjeet Kumar Ranjan,
Assistant Professor, Dept. of CSE, IITDM Jabalpur

Contact us:

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One Week Faculty Development Programme On

Healthcare Analytics and Artificial Intelligence: Current Applications and Future Directions

09-13 October 2026 (Physical Mode)

Jointly Organized by

National Institute of Technology Jamshedpur



And

**Electronics and ICT Academy,
Indian Institute of Information Technology
Design & Manufacturing Jabalpur**



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



Faculty Development Programme On

Healthcare Analytics and Artificial Intelligence: Current Applications and Future Directions 09-13 October 2026 (Physical Mode)

Resource Persons

- Prof. (Dr.) Prasanta K. Jana, IIT (ISM) Dhanbad
- Prof. (Dr.) Aparajita Ojha, PDPM IITDMJ, Jabalpur
- Prof. (Dr.) Shekhar Verma, IIIT Allahabad
- Dr. Sriparna Saha, IIT Patna
- Dr. Damodar Reddy Edla, Dept. of CSE, NIT Goa,
- Dr. Sandeep Singh Sengar, School of Tech., Cardiff Metropolitan University UK
- Dr. Rakesh Kumar Yadav, Lead Data Scientist, Yum Brands, Gurugram
- Mr. Saurav Nilesh, Maternal Health Study, BHU Varanasi.
- Dr. Abhishek Singh, Senior Manager, Accenture
- Dr. Om Jee Pandey, IIT (BHU) Varanasi
- Dr. Diwakar Prasad Tripathi, NIT Jamshedpur
- Dr. B. Ramachandra Reddy, NIT Jamshedpur

Coordinators

- Dr. Diwakar Prasad Tripathi, Dept. of CSE, NIT Jamshedpur
- Dr. Ranjeet K. Ranjan, Dept. of CSE, IIITDM Jabalpur

Co-Coordiators

- Dr. B. R. Reddy, Dept. of CSE, NIT Jamshedpur

Course Contents

- Fundamentals of AI and ML for disease prediction and clinical decision support systems.
- Medical Image Analysis: X-ray, MRI, and CT scan analysis.
- Multimodal information processing.
- AI-Based Medical Image Segmentation, Reconstruction, and Enhancement.
- Biofeedback, Neurofeedback, and AI-Driven predictive healthcare.
- Integrating physiological signals with intelligent systems.
- AI-accelerated review system in Life sciences.
- Brain Computer Interfacing (BCI) and Signal acquisition and real-time decoding for BCI.
- Agentic AI and intelligent autonomous healthcare systems.
- Internet of Medical Things (IoMT) and wearable health analytics.
- Ethical, Legal, Privacy, and Security Issues in AI-Enabled Healthcare

Hands-On Sessions

- Healthcare Data Analytics using Python, Pandas, NumPy, and Scikit-learn.
- Clinical Data Wrangling & EDA: visualizing, and analyzing a real-world dataset.
- Feature selection and Feature Extraction approaches and their impact analysis in classification and regression.
- Physiological Signal Analysis (ECG, EEG, PPG) using Artificial Intelligence.
- Medical Image Analysis for X-ray, CT, MRI, and Histopathology Images
- Internet of Medical Things (IoMT) and Wearable Health Data Analytics.
- Agentic AI Applications for Intelligent Healthcare Assistance and Workflow Automation.
- Brain-Computer Interface (BCI) Signal Processing and AI-Based Applications.

Programme Features

- Expert lectures by eminent academicians, clinicians, AI researchers, and industry professionals.
- Comprehensive theoretical and hands-on training in Healthcare Analytics and Artificial Intelligence.
- Certificate on successful completion with full access to the course material.
- Networking opportunities with researchers, clinicians, healthcare professionals, and industry experts.

Registration Details

- After the successful payment, take a snapshot of the payment proof with the transaction reference number, which is to be uploaded to the online registration form.: <https://forms.gle/jsBXdEwnncWnr2x99>



- **Registration fee:** 1000/- INR.
- **Last Date for Registration:** 02-10-2026

Online Payment Details

Beneficiary Name : Research and Consultancy NIT Jamshedpur

Bank Name State Bank of India

A/C No. 38246478714

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