

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 IIT 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

Recent Advances in Social Networking Analysis

The course is designed to provide participants with in-depth knowledge of emerging techniques and methodologies in social network analysis. It aims to equip educators and researchers with tools to analyze complex networks, understand social structures, and explore real-world applications in areas like communication, business, and technology.

Who can attend: The Programme is open to faculty from all colleges, universities, and technical and professional institutes. Students, fresh graduates, researchers, and industry personnel working in allied disciplines can also attend.

Important Dates:

Last Date of Online Registration: December 27, 2024

FDP Dates: January 06-11, 2025

Coordinators:

Dr. Avinash Chandra Pandey and Dr. Shivansh Mishra, Computer Science and Engineering Discipline, PDPM IIITDM Jabalpur

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Faculty Development Programme

Recent Advances in Social Networking Analysis

January 06-11, 2025 (Hybrid 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

Recent Advances in Social Networking Analysis

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RESOURCE PERSONS

- Prof. Tanmoy Chakraborty, IIT Delhi
- Dr. Bhaskar Biswas, IIT BHU, Varanasi
- Dr. Sanjay Kumar, DTU, Delhi
- Dr. Ashish Kumar Tripathi, MNIT Jaipur
- Dr. Mahipal Jadeja, MNIT Jaipur
- Dr Ayan Seal, PDPM IIITDM Jabalpur
- Dr. Avinash Chandra Pandey, PDPM IIITDM Jabalpur
- Dr. Shivansh Mishra, PDPM IIITDM Jabalpur
- Dr. Akshay Pandey, PDPM IIITDM Jabalpur

COURSE COORDINATORS

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Course Contents

- Graph Preliminaries
- Machine Learning Algorithms using Python
- Introduction to Social Network
- Machine Learning for SNA including GNN
- Network Growth Models and Databases
- Link prediction in social networks
- Centrality measures in social networks and their applications
- Community detection in social Networks
- Information diffusion in social networks
- Page Ranking using Web graph
- Security and Privacy issues in SNA
- Quantum Social Network Analysis
- Introduction to graph neural networks techniques.

Hands-On Sessions

- Python programming, Pytorch, Keras, Google Colab.
- Introduction to NetworkX, Gephi, etc,
- Graph visualizations using real-world datasets
- Machine Learning Algorithms
- Node classification using ML
- Network Models
- Link Prediction
- Link prediction using ML
- Centrality measures and Network Metrics
- Community Detection
- Page Ranking algorithms

Programme Features

- Fundamentals of graph processing in the domain of social network analysis.
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions with online (live streaming) sessions.
- Certificate on successful completion with full access to the course material.

Registration Details

- Registration link – Please fill out registration using the following link:
<https://forms.gle/zanavW9h4XyXggVh8>
- Registration fee: 1000 INR/ (For Offline)/ 500 INR/- (For Online)
- Last Date for Registration: **December 27, 2024**

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**

