



JOINT FACULTY DEVELOPMENT PROGRAM

Recent Advancements in Deep Learning for Speech Processing

COORDINATORS

PRINCIPAL COORDINATORS

Dr. Syed Shahnawazuddin

Dr. Ashish Kumar Bhandari

NIT Patna

3rd-7th August 2026

Hybrid Mode

Monday-Friday

JOINT PRINCIPAL COORDINATOR

Prof. B. V. Phani

IIT Kanpur

JOINT PRINCIPAL COORDINATOR

Prof. Sanjeev Manhas

IIT Roorkee

JOINT PRINCIPAL COORDINATOR

Dr. Satyasai Jagannath Nanda

MNIT Jaipur

JOINT PRINCIPAL COORDINATOR

Dr. Anil Kumar

IIITDM Jabalpur



Supported by

**Ministry of Electronics and Information Technology
(MeitY), Govt. of India.**

❖ Objectives of the Program

- To familiarize the participants with the fundamentals of Deep Learning with a focus on its applications in various domains of Speech Processing
- To develop a deeper understanding of Speech Processing and its application in different domains
- To acquaint the participants with some of the cutting-edge research trends in the field of Speech Processing
- To help participants gain hands on experience with working of speech processing tools
- To promote the use of the concepts Deep Learning for problem solving in other engineering domains.

❖ Topics to be covered

The following topics will be covered with possible simulation/experimental exposure:

- Introduction to data pre-processing and data visualization using python/MATLAB
- Feature extraction techniques employed in different areas of speech processing
- Introduction to various deep neural network architectures such as DNN, CNN, RNN, TDNN, LSTM with a focus on their application in various domains of speech processing
- Fundamentals of Transformers, Transfer Learning, Self-supervised Learning and Federated Learning
- End-to-end architectures for speech recognition, speaker verification, and speech enhancement
- Generative adversarial networks (GANs) and their application in speech enhancement and voice conversion
- Parameter efficient fine-tuning of pretrained models (LoRA and its variants)
- Basics of Tensor Flow/Keras/PyTorch/Jupyter and Colab
- Hands-on session on Python/MATLAB.

❖ Resource Persons

Lectures as well as hands on sessions will be conducted by experts from industries and academia including faculty members from IITs, NITs and other leading institutions.

❖ Who Can Participate

Faculty members, research scholars and UG/PG students from recognized Institutes and Universities can register for the FDP. People from industries can also register for the FDP. However, priority will be given to the faculty members.

❖ What will this FDP include?

Five days of instructor-led live online training (5-6 hrs/day) by experts from India and abroad, covering 40 hours of hands-on interactive sessions. Participants will receive soft copies of study material, PPTs, project codes, and recorded sessions. E-Certificates will be awarded to those attending more than 70% sessions and completing the assessment process.

❖ Registration Fee

- For Academia -Faculty/Student (India/SAARC/Africa): INR 885 /-
- For Industry participants: INR 1770 /-
- For rest of the world: USD 60

❖ Registration Process

1. Use the following link for online registration:

<https://forms.gle/LB67BEshWxqCTkRRA>

2. Registration fee can be paid through online mode. The account details for this purpose are:

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

3. Scan this QR code for payment:



❖ Points to Note

1. **Registration deadline:** 31 July 2026 11:59 PM (IST)
2. **Contact us: Mr. Durgesh Kushwaha**
Ph: 7898670354
Email: academy@iitdmj.ac.in, eict@iitdmj.ac.in