



# Online Faculty Development Programme (FDP) on From Data to Decisions: Machine Learning and IoT Applications in Healthcare and Agri-Tech

(7<sup>th</sup> to 17<sup>th</sup> July, 2025)

Organized by

Electronics and ICT Academy, NIT Warangal

In association with

Department of Computer Science & Engineering, NIT Delhi

Sponsored by the

Ministry of Electronics and Information Technology (MeitY), GoI



## Preamble:

"Electronics & ICT Academy – Phase II" was set up at NIT Warangal with financial assistance from MeitY, GoI. This academy's role is to offer FDPs in standardized courses and emerging areas of Electronics, Information Communication Technologies, training and consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

## About the FDP:

The FDP titled "From Data to Decisions: Machine Learning and IOT Applications in Healthcare and Agri-Tech" aims to bridge the gap between emerging technologies and academic expertise, focusing on real-world applications in Healthcare and Agri-Tech. This program focuses on familiarizing faculty with fundamental and advanced concepts of Machine Learning and IoT, demonstrates practical applications of ML and IoT in Healthcare and Agricultural technologies, and equips faculty with the skills to integrate these technologies into academic curricula and research projects that foster interdisciplinary research and innovation collaborations.

## Major Course Content:

- Supervised, Unsupervised, and Reinforcement Learning
- ML Algorithms and Model Evaluation Metrics
- Architecture of IoT Systems
- Sensors, Actuators, and Communication Protocols
- Data Collection, Preprocessing, and Visualization
- Feature Engineering and Model Deployment
- Predictive Models for Disease Diagnosis
- Remote Health Monitoring using IoT
- AI in Medical Imaging and Diagnostics
- Smart Farming and Crop Monitoring
- Predictive Analytics for Yield Estimation
- IoT-Enabled Soil and Climate Monitoring
- Edge Computing for IoT
- Ethical and Security Issues in ML and IoT Applications
- Case Studies and Industrial Applications
- Building Machine Learning Models (using Python)
- IoT Prototyping (using Arduino/Raspberry Pi)
- Data Visualization and Interpretation
- Identifying Research Problems
- Writing Proposals for Government and Industry Funding

## Faculty Conducting this Programme:

The programme will be conducted by the faculty members from NIT Delhi and NIT Warangal; Academicians in the concerned field from IITs/NITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

## Registration Fee Particulars:

Faculty and Research Scholars	Rs. 500/-
Industry Participants	Rs. 2250/-

Participants need to pay the Registration Fee Online using the following details.

Online Transfer Details	
Account Name	: Electronics & ICT Academy NITW
Account No	: 62423775910
IFSC	: SBIN0020149
Bank and Branch	: State Bank of India, NIT Campus, Warangal

## How to apply:

Participants are required to fill out the online registration form by clicking on the following link:

<https://forms.gle/waLUgdkfKSTcumVAZ> or Scan QR



## Selection Criteria:

Selection will be done based on first-come, first-serve basis to a maximum number of 50 (fifty). Candidates will be issued certificates upon satisfactory completion of the FDP.

## Important Dates:

Last Date for Registration	06.07.2025 (5.30 PM)
Selection List by E-mail	06.07.2025 (11:59 PM)
Duration	07.07.2025 to 17.07.2025

## About NIT Delhi:

NIT Delhi is one of India's premier public engineering institutions, renowned for its excellence in education, research, and innovation. Established in the year 2010 by an Act of Parliament. The Institute has been declared as an Institute of National importance. With a sprawling campus spread over 51 acres, NIT Delhi offers cutting-edge programs in engineering, science, and humanities. NIT Delhi consistently ranks 45th rank in 2024 among 4000 engineering colleges in India by NIRF, fostering a vibrant academic and entrepreneurial ecosystem.

## About NIT Warangal:

National Institute of Technology, Warangal, is the first among 17 RECs set up as a joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard, leading to B.Tech degrees in various branches of engineering, M.Tech., and Ph.D. programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

## Coordinators:

<b>Dr. Gautam Kumar</b> Assistant Professor Department of CSE NIT Delhi, Delhi - 110036 Email: <a href="mailto:gautam@nitdelhi.ac.in">gautam@nitdelhi.ac.in</a> Ph. No.: 8292556170	<b>Dr. Munesh Singh</b> Associate Professor Department of CSE NIT Delhi, Delhi - 110036 Email: <a href="mailto:munesh.singh@nitdelhi.ac.in">munesh.singh@nitdelhi.ac.in</a> Ph. No.: 8518938380
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## Dr. Sanjaya Kumar Panda

Assistant Professor  
Department of CSE  
NIT Warangal, Telangana – 506004  
Email: [sanjaya@nitw.ac.in](mailto:sanjaya@nitw.ac.in)  
Ph. No.: 9861126947