



S J P N Trust's

## Hirasugar Institute of Technology, Nidasoshi

*Inculcating Values, Promoting Prosperity*

Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi

Recognized under 2(f) & 12B of UGC Act, 1956

Accredited at 'A+' Grade by NAAC &

Programmes Accredited by NBA: CSE & ECE

### ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

on

### AI/ML: Foundations, Real-World Applications and Sustainable Development

(2<sup>nd</sup> April 2025 to 11<sup>th</sup> April 2025)

Organized by

E&ICT Academy, NIT Warangal

In Association with

Department of Electronics and Communication Engineering

Hirasugar Institute of Technology, Nidasoshi, Karnataka

Sponsored by 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 Faculty Development Programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

## ABOUT THIS FDP

This FDP is devoted to addressing the need to enhance knowledge about Problem-solving techniques with the latest technologies in Advanced AI and ML Techniques, which is being conducted in online mode as a joint venture of E&ICT Academy, National Institute of Technology, Warangal, and the Hirasugar Institute of Technology, Nidasoshi, Karnataka. Academicians and industry experts from IITs, NITs and Premier Organizations will handle the whole course. Major Course Contents:

- AI and ML: Fundamentals and Applications
- AI/ML Tools & Frameworks
- AI-Based Problem-Solving Techniques
- Real world Applications of AI/ML
- Soft Computing Applications
- Deep Learning for Problem Solving
- Impact of AI and ML on Sustainable Development
- Quantum AI & Next Gen Computing
- Case Studies

## 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 and 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.

## ABOUT THE INSTITUTE

SJPN Trust Nidasoshi was founded by His Holiness Shri Pancham Nijalingeswar Mahaswamiji, the Ninth Pontiff of Shri Siddha Sansthan Math Nidasoshi in 1984. Hirasugar Institute of Technology, Nidasoshi was established in the year 1996. The institution is run by His Holiness Shri Jagadguru Pancham Shri Shivalingeswar Mahaswamiji, the Tenth Pontiff under SJPN Trust. The institute is spread over 48 acres of lush green campus. HSIT, Nidasoshi is approved by All India Council for Technical Education (AICTE), New Delhi, recognized by the Govt. of Karnataka, and is permanently affiliated to Visvesvaraya Technological University (VTU), Belagavi. Hirasugar Institute of Technology (HSIT) is one of the premier engineering colleges located in the Belagavi district of North Karnataka. The institute is accredited by NAAC with an 'A+' grade and its UG programs are accredited by the NBA. HSIT, Nidasoshi offers 4 years of full-time Bachelor of Engineering (B.E.) degree courses in four disciplines with a total intake of 360 students: 1. Computer Science & Engineering 2. Electronics & Communication Engineering 3. Electrical & Electronics Engineering 4. Mechanical Engineering. The campus has all the basic amenities for the overall development of the students with spacious infrastructure. The institute has well-equipped modern laboratories and a well-stacked computerized digital & open-access library system. The Institute has facilities like: Separate hostels for boys and girls, Staff quarters, A Canteen, A Bank, A Guest House, A Generator, A Playground, A Multi-station gymnasium hall for indoor games, Yoga, Transportation for students and staff.

## ABOUT THE DEPARTMENT

The Department of Electronics & Communication Engineering was started in the year 1996 as one among the four disciplines of Engineering in the Institute. The vision of the department is to be a center of excellence in providing education in the field of Electronics and Communication Engineering, aiming to produce technically competent and socially responsible engineering graduates. The mission is to educate students, preparing them for professional competencies in the broader areas of Electronics and Communication Engineering, by inculcating analytical skills, research abilities, and encouraging a culture of continuous learning, enabling them to solve real-time problems using modern tools.

## FACULTY CONDUCTING THIS PROGRAM

The program will be conducted by faculty members from NIT Warangal and the Hirasugar Institute of Technology, Nidasoshi; academicians in the concerned field from IITs/NITs/IIITs/abroad are invited to deliver lectures. Speakers from industries are also expected to provide as part of the course.

### Registration Fee Particulars:

Faculty and Research Scholars	Rs 750/-
Industry Participants	Rs 2250/-

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

<b>Online Transfer Details</b>
<b>Account Name: Electronics &amp; ICT Academy</b>
<b>NITW Account No: 62423775910</b>
<b>IFSC: SBIN0020149</b>

### How to apply:

Participants must register online by clicking the link below. If the link does not open, copy it and paste it into a browser, then press enter.

### Link to Apply:

<https://forms.gle/1n4xiv9Sqh9jMEN39>

### Selection Criteria:

Selection will be made based on a first-come-first-serve basis to a maximum number of 40 (forty). The list of selected participants will be intimated through e-mail. The DD/online payment will be returned if a candidate is not selected. Candidates will be issued satisfactory certificates (both Hard and Soft copy) on successful completion of the course.

### Important dates:

Last date for submission of the Application	30.03.2025
Selection List by Email	31.03.2025
Duration	02.04.2025 to 11.04.2025
Session Time (Online Mode)	3 PM to 7 PM

### Chief Patron

**His Holiness Jagadguru Panchama Shri. Shivalingeshwar Mahaswamiji**  
Shri Duradundeeshwar Siddha Sounsthan Math, Nidasoshi

### Patron

**His Holiness, Sri Nijalingeshwar Mahaswamiji**  
Shri Duradundeeshwar Siddha Sounsthan Math, Nidasoshi

### Organizing Chairman

**Dr. S. C. Kamate**  
Principal

### E&ICT Academy, NIT Warangal Convener

**Dr. Sujit Das**  
Assistant Professor, Department of CSE  
National Institute of Technology Warangal

### FDP Conveners, HSIT Nidasoshi

**Dr. S. S. Ittannavar**  
Dean, Students Welfare, (9964299498)  
Associate Professor, Department of ECE

### Dr. M. C. Sarsamba

Professor, HOD Department of ECE, (9480714746)

### Advisory Committee

**Prof. P. Sreehari Rao**  
Professor, Department of Electronics and Communication.  
Chairman, E&ICT Academy, NIT, Warangal.

### Dr. B. V. Madiggond

HOD Electrical & Electronics Engineering.

### Dr. S. N. Topannavar

Dean (Academics), HOD, Mechanical Engineering

### Dr. K. B. Manwade

HOD Computer Science & Engineering.

### Dr. M. P. Yenagimath

First Year Coordinator

### FDP Programme Department Coordinators

**Prof. D. B. Madihalli**

**Prof. B. P. Khot**

## OBJECTIVES OF THE FDP

- To Gain a solid foundation in the basic concepts and algorithms of AI and Machine Learning.
- To Become proficient in using popular AI/ML tools and frameworks to implement practical solutions.
- To Learn how to leverage AI/ML to solve complex, data-driven problems across various industries.
- To Investigate how AI and ML technologies can contribute to achieving global sustainable development goals.
- To Explore the potential of quantum computing and its integration with AI for solving advanced problems.

## OUTCOMES OF THE FDP

- Participants will have a strong grasp of key AI/ML algorithms, techniques, and their applications.
- Ability to use frameworks like TensorFlow, PyTorch, and Scikit-learn to build, train, and evaluate AI models.
- Participants will be able to design AI/ML solutions for real-world challenges, optimizing decision-making and predictions.
- Understand how AI/ML can aid in solving global sustainability issues such as climate change, energy consumption, and resource management.
- Gain basic knowledge of Quantum AI and its future potential in solving problems that classical computing cannot.

### THANKS & REGARDS

**E&ICT Academy, NIT Warangal**

**Contact: +91- 8536009758**

**Hirasugar Institute of Technology,  
Nidasoshi-591236**

**Contact: +91-9964299498, 08333-278887**

**Website: <https://hsit.ac.in>**



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#### About Hirasugar Institute of Technology, Nidasoshi:

Hirasugar Institute of Technology, Nidasoshi is established in the year 1996 with the sole purpose of providing quality technical education in four disciplines of engineering. Since then the growth of the institute has been guided by the proactive response to the fast changing world of technology. The Institute is approved by AICTE, New Delhi and is affiliated to VTU, Belagavi. The Institute is Accredited by NAAC at A+ and NBA Accredited across two disciplines. The Institute Recognized under 2(f) & 12B of UGC Act, 1956. The Institute's main objective is to provide effective technical education and make the students to become better citizens and accomplished technocrats of our nation.

### Coordinators

#### Dr. Sujit Das

Assistant Professor  
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Warangal – 506004, Telangana, India  
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