

# TEN DAY ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

## Artificial Intelligence and its Role in Future Communications, Signal Processing and Computing Applications (25<sup>th</sup> April – 04<sup>th</sup> May 2023)

Organised by  
Electronics & ICT Academy, NIT Warangal  
in association with

University of Kashmir, Srinagar, Jammu & Kashmir



(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)

### Preamble:

Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. 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 the FDP:

The FDP on Artificial Intelligence and its Role in Future Communications, Signal Processing and Computing Applications. Applied Signal Processing focuses on providing a link between digital and analog signal processing domains. Artificial intelligence is influencing the future of almost every sector and every person on the planet. AI has acted as the driving force behind developing technologies for industrial automation, medical applications, agriculture, IoT applications, cybersecurity services, etc. This course will give the basics and research areas of applications to communications, signal processing and computing techniques related to the AI. It will help to upgrade the expertise and capabilities of the faculty members of various engineering institutions in India. Experts cover a range of contemporary computing topics and provide with a strong theoretical basis, as well as develop critical analysis and practical skills. This FDP aims to impart knowledge and train on AI and insights in recent communication & signal processing applications using AI.

### Major Course Content

- Mathematical foundations of machine learning for signal processing and communication.
- ML based Regression, Classification and its applications.
- Machine learning based signal processing for software defined and cognitive radio.
- Artificial Intelligence for 5G/6G systems and Potential Limitations of AI in Wireless Communication
- Machine learning and signal processing of large-scale datasets
- Visual data compression using AI
- Covert communications using Visual data: An alternate strategy to secure communication
- Role of Technology in Heritage preservation for future generations
- Role culture of Innovations and Technopreneurship for Nation building
- AI inspired IOT
- Digital Forensics and AI
- Neuromorphic computing: A path to real time AI.
- Energy Efficient Spiking Neural Networks
- Machine Vision through in sensor Computing.
- Re-RAM for Commercial AI

### Faculty conducting this programme

The programme will be conducted by the faculty members from NIT Warangal and University of Kashmir; Academicians in the concerned field from IITs/NITs/IITs 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.750/-
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 (REC) Warangal

### How to apply:

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

<https://forms.gle/v5nCUVYLsVUj6p5i7>

### Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 90 (Ninety). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the payment will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

### Important Dates:

Last date (Application & payment proof)	18-04.2023
Selection List by E- mail	20-04.2023
Duration	25-04.2023 to 04-05-2023

### About NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as 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 the 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.

### About University of Kashmir:

The University of Jammu and Kashmir was founded in the year 1948. In the year 1969 it was bifurcated into two full-fledged Universities: University of Kashmir at Srinagar and University of Jammu at Jammu. The University of Kashmir is situated at Hazratbal in Srinagar. It is flanked by the world famous Dal Lake on its eastern side and Nigeen Lake on the western side. The Main Campus of the University spread over 247 acres of land is divided into three parts – Hazratbal Campus, Naseem Bagh Campus and Mirza Bagh Campus (serving residential purpose). Additional land has been acquired at Zakura near the main campus for further expansion of the University. The tranquil ambience of the Campus provides the right kind of atmosphere for serious study and research. Over the years, the University has marked towards excellence in its programmes and activities. It has been re-accredited as Grade-A+ University by the National Assessment & Accreditation Council (NAAC) of India. This is recognition and reflection of the high standard of quality in teaching and research at the University of Kashmir.

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**Organised by**  
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**Registration Form**

- Name:
- Designation:
- Institution:
- Email:
- Mobile No:
- .

Reference No:	
Amount:	
Bank:	
Date:	

- Address for Correspondence:
- Educational Qualification:
- Subjects taught so far:
- No. of Refresher courses/workshops attended:
- Experience (in years):  
Teaching:      Research:      Industry:
- Do you belong to SC/ST:      YES/NO.

**Declaration**  
The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, am unable to attend the course.

**Date:**      **Signature of the Applicant**

**SPONSORSHIP CERTIFICATE**

Dr. /Mr. /Ms. .... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “**Artificial Intelligence and its Role in Future Communications, Signal Processing and Computing Applications**”, sponsored by **Electronics & ICT Academy** during 25<sup>th</sup> April – 04<sup>th</sup> May, 2023 at University of Kashmir, Srinagar.

Signature of Head of Institution  
(with seal)

**Address for correspondence**

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It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form has to be uploaded in the following online registration link.

**Registration Link:**

For more details about Electronics & ICT Academy, NIT, Warangal, please visit: <https://nitw.ac.in/eict>

**For more enquiries please contact:**

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**Coordinators**

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