



# ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

## Advanced Computational Approaches for Antenna Pattern Synthesis and Intelligent Beamforming (15<sup>th</sup> Nov – 24<sup>th</sup> NOV 2024)

Organized by

**Electronics & ICT Academy, NIT Warangal**

(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 the FDP:

The digitization of industries worldwide gives rise to several security demands for the Internet of Things (IoT). Ensuring security and privacy in the IoT will require the implementation of end-to-end (E2E) security management. This will involve establishing strong identities and preserving trust. With the expanding range of IoT services and the escalating number of interconnected devices, the vulnerabilities to IoT systems are evolving and multiplying at an accelerated pace. The central theme of this FDP is to provide research perspectives on end-to-end solutions for IoT security. Many IoT service topologies require end-to-end (E2E) security to prevent critical data from being exposed to various attacks.

### Major Course Content:

- Fundamentals of Electromagnetic and Antenna Theory
- Introduction to Advanced Antenna arrays like Smart antennas, MIMO antennas and time modulated antennas.
- Scope and research of time modulated antennas.
- Introduction to Soft computing/Evolutionary algorithms.
- Hands on practice of evolutionary algorithms application to the antenna array.
- Basic Demonstration and hands on practice of antenna design using such as HFSS/CST.
- Multi beam and beamforming antennas.
- Antenna interaction and coupling analysis

### Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal; Academicians in the concerned field from IITs/NITs/IIITs 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 :	<b>Electronics &amp; ICT Academy NITW</b>
Account No	<b>62423775910</b>
IFSC	<b>: SBIN0020149</b>
Bank and Branch:	<b>State Bank of India, NIT(REC) Warangal</b>

### How to apply:

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

<https://forms.gle/tTeSGEu2tBTwRrv79>

### Selection Criteria:

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

### Important Dates:

Last date (Application)	<b>01.11.2024</b>
Selection List by E- mail	<b>08.11.2024</b>
Duration	<b>15.11.2024 to 24.11.2024</b>

### 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

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