



Online Programme on Recent Trends in Frequency Selective Surfaces Design for 5G & 6G Applications

Oct 03- Oct 11, 2025



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Objective (Electronics & ICT Academy-Phase II)

1) To conduct specialized FDPs for faculty/mentor training in line with the vision of MeitY by promoting emerging areas of technology and other high-priority areas that are pillars of both the "Make in India" and the "Digital India" programs.

2) To promote synergy and collaboration with industry, academia, universities and other institutions of learning, especially in emerging technology areas.

3) To support the National Policy on Electronics 2019 (NEP 2019) which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.

4) To promote standardization of FDPs through Joint Faculty Development Programmes.

5) To support the vision of the National Education Policy (NEP 2020), which mandates that Indian educators go through at least 50 hours in professional development programmes per year.

6) To design, develop & deliver specialised FDPs on emerging technologies/ niche areas/ specialised modules for specific research areas for Faculty in Higher Education Institutions (HEI), besides FDPs on multi-disciplinary areas connected with ICT tools and technologies and other digital hybrid domains, covering a wide spectrum of engineering and non-engineering colleges, polytechnics, ITIs, and PGT educators.

An intensive 40 Hours Training Programme in online mode is being organized for faculty and doctoral students of engineering and technological institutions. It is also open to working professionals from industry/organizations. The main theme of training program will be oriented around exploring the state of the art methods for Recent Trends in Frequency Selective Surfaces Design for 5G & 6G Applications. **The programme will be run during 9:00 AM to 6:00 PM**

Experts/Speakers-

A blend of academic excellence from IITs, NITs, and IIITs, together with practical perspectives from industrial leaders.

Programme Modules:

Module 1: Fundamentals of Electromagnetic bandgap materials, metamaterials, metasurfaces, frequency selective surfaces including theoretical analysis, equivalent circuit modeling, Polarization & incidence angle effects, complex media, electromagnetic material properties and measurements
Module 2: FSS for 5G Applications: Beamforming & MIMO support, Bandpass & bandstop FSS designs, Integration with antennas & radomes, Compact and conformal structures
Module 3: FSS for 6G and Beyond: Terahertz FSS design challenges, Reconfigurable & tunable FSS (using MEMS, graphene, liquid crystal), Ultra-wideband & metamaterial-based FSS, Low-profile and flexible designs
Module 4: Emerging Trends & Research Directions: AI/ML-assisted FSS design, Additive manufacturing & advanced fabrication, Energy harvesting & wireless power transfer, FSS for security and stealth in communication systems, Nano-electromagnetics, THz sensing and analysis, Intelligent Reflective Surfaces/ Reconfigurable Intelligent Surfaces (RIS), rabsorbers, polarization converters, Millimeter-wave/THz imaging for bio medical applications,
Module 5: Simulation based Design Techniques: Metamaterials, Frequency-selective surfaces, absorbers, polarization converters

Programme Coordinator:

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Registration:

Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate and graduate students from India and rest of the world. Participants will be admitted on first-come first-served basis. Register online at-(<http://online.mnit.ac.in/eict/>)



Registration Fee:

Mode of programme	Academia (faculty/Students): India/SAARC/Africa	Others: India/SAARC/Africa	Rest of the world
Online	Rs. 500/-	Rs. 1500/-	US \$ 60/-
Classroom	Rs. 2000/-	Rs. 4000/-	--

(A) Fee once paid will not be refunded back.

(B) The fee covers online participation in the programme, tutorial notes and examination, certification charges etc.

(C) The registration amount may be paid through online mode- NEFT/UPI/Cards/SWIFT, provided at the registration portal.

(D) Detailed schedule will be shared after receiving registration form.

→ For queries,email us at fdp.academy@mnit.ac.in

MNIT Jaipur one of the oldest NITs, the institute has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 43rd nationally in the NIRF ranking-2024 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains. Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcome you at the campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology.