ATAL Academy

Faculty Development Programme

On

Modern Antenna Design and AI-Based Optimization

(20th - 25th July 2026)

Topics to becoveredinFDP

1. RadarAntenna: Fundamentals,Applications, and Research.
2. Microstrip and Multiple Antenna Radar System Design
3. Phased Array Antennas and Beamforming Techniques
4. Metasurfaces, Frequency Selective Surfaces(FSS), and Smart Reconfigurable Antennas
5. AI/ML Basics for Antenna Systems and Radar Optimization
6. Machine Learning and Explainable AI for Radar Antennas
7. Hands-on Sessions on Beamforming, Optimization, and Advanced Simulation TechniquesAI in Radar, 5G, and 6G Communication Systems
8. Electronic Warfare and Industrial Defence Communication Applications
9. Research Methodology, Article Review, and Technical Writing

FDPRegistration: No Registration Fee

Registration can be done only through AICTE– ATAL portal. https://atalacademy.aicte-india.org/login

"Sign Up" and create a login as "Participant" Login using your newly created login credentials, update your profile and click on "FDPs" Link. You can register by clicking on the "+" sign on FDP on 'IoT Enabled Sensor Technology for Industry 5.0' . It is required to upload scanned copy of your ID Card andNOC from Head of the Institution at the time of online registration.

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COMMITTED TO RESEARCH, INNOVATION AND EDUCATION 47 years

A One Week AICTE Training and Learning (ATAL)Academy

Faculty Development Programme

On

Modern Antenna Design and AI-Based Optimization

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Organized by

Department of Electronics and Communication Engineering

Chaitanya Bharathi Institute of Technology

(Autonomous under UGC)

Affiliated to Osmania University
Kokapet (Village), Gandipet,
Hyderabad – 500075
Telangana State, India.
www.cbit.ac.in

About the Institute

CBITis one of the premier Engineering Institutes in India, pioneer in Telangana State, which is at idyllic surroundings of Gandipet Lake, Hyderabad. The college offers 12 UG and 10 PG programs. It has been standing as a temple of knowledge for the past 47 years by producing more than 25,000 eminent and skillful graduate engineers, who are successful in their careers, serving all over the globe. The Institute has been accredited by NAAC – UGC with 'A++' Grade and various programs are accredited by NBA –AICTE. The institution is UGC autonomous since 2013-14. Stringent academic standards, industry compliant teaching methodology, research projects from private and public sector organizations and consultancy practice enabled the Institute to establish it's identity in the Technical Education and is ranked as one of the best amongst the private engineering colleges.

About the Department

The Department of Electronics and Communication Engineering, CBIT is offering two UG Programs in ECE & EE(VLSID) and with an intake of 180, 60 and two PG programs in Communication Engineering and Embedded Systems & VLSI Design. The department has 44 faculty members out of which 38 are PhDs. The department is growing exponentially in terms of R&D and consultancy. The Ongoing Sponsored research projects worth of Rs. 245.01 lakhs were awarded to the faculty by ISRO, DST, AICTE, UGC, DRDO etc. A total of 25 patents were published and 8 patents are granted as on date. The Department is well equipped with all state-of-the-art equipment's, Laboratories & workshops providing all necessary facilities to the students. There are two special industry-oriented labs namely Navigation & Comm. Research Centre (NCRC) Lab and Green Opto Nano Energy (G-1) Lab.

About the FDP

This Faculty Development Programme focuses on modern radar antenna systems, microstrip antennas, phased arrays, beamforming, metasurfaces, smart antennas, and AI-based optimization techniques for next-generation defence and wireless applications. The programme integrates electromagnetic design principles with machine learning and explainable AI to address challenges in radar communication, surveillance, and aerospace systems. The FDP includes expert lectures, MATLAB laboratory sessions, article discussions, optimization exercises, industrial visits, and research methodology training. Participants will gain exposure to both theoretical foundations and practical implementation strategies relevant to DRDO, defence communication, aerospace radar, and 5G/6G applications.

Resource Persons

The resource persons are from reowned Institutes/organizations such as IITs,NITs, Defense laboratories

Eligibility

The faculty members, Research scholars & PG Students of the AICTE approved institutions, Industry professionals nominated by Heads of the Institutions

Registration Fee / TA / DA

1. Program is fully sponsored by AICTE. There is No Registration Fee. TA of Rs. 1,200/- (lump sum) per External Participant payable only for those with >=90% attendance and traveling beyond 20 km one side. Accommodation will not be provided.
2. Refreshments and working lunch will be provided to the participants.

Certification

A test shall be conducted at the end of the program. Candidates would be eligible to receive a certificate up on achieving at least 70%cumulated weightage in the several aspects such as Attendance, One assessment, 2 Page Article Summary, Output of practical sessions, Report/outcome of Industrial visit, Reflection Journal.

ATAL Academy

AICTE Training And Learning (ATAL) Academy recognized the need to train the young generation in skill sector, faculty & technicians in their respective disciplines. Also. AICTE felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Thus, AICTE Training and Learning (ATAL) was established with a mission to empower faculty to achieve goals of Higher Education such as access, equity and quality. ATAL Academy has started unique faculty development programs in various thrust areas of modern technology, which will be benefitting several faculties, research scholars & PG students.

CBIT

R&E Hub, CBIT