From Concept to Reality

A Hands-on Workshop on
Design and Development of Antennas and RF Components for 5G Wireless Communication

Designing a workshop around the theme of "Design, Simulate, Fabricate, and Testing Antennas and HF components" can be both engaging and educational

Organized by

RF & Wireless Research Laboratory, Indian Institute of Information Technology, Allahabad

in Association with

Entuple Technologies Pvt. Ltd., Bangalore

About IIIT, Allahabad :

IIIT - Allahabad, established in 1999, is a premier institution focused on Information Technology (IT) and related fields. It gained "Deemed University" status in 2000 and was recognized as an "Institute of National Importance" by the Government of India in 2014. The institute aims to cultivate professional expertise and skilled manpower in IT and allied research, contributing significantly to India's capabilities in IT and allied sectors globally.

Located on a scenic 100-acre campus at Deoghat, Jhalwa, designed in Penrose Geometry pattern, IIIT-A features extensive landscaping for a stimulating environment. The campus, envisioned as fully residential, accommodates faculty, staff, and students across various areas, all interconnected through the Institute's network.

About Entuple Technologies :

Headquartered in Bangalore, India, Entuple Technologies was founded on January 1, 2010 by professionals with a combined experience of over 80 years in the Electronics Industry. The name "Entuple" signifies enabling multi-dimensional possibilities and growth for stakeholders. The management team, with diverse experience in Aerospace, Defence, Small and Medium Business, Research, and Academia, collaborates to develop cutting-edge system design technologies.

By partnering with technology leaders such as Ansys, Cadence, Anritsu, MITS, Bungard, PTC, EOS, Entuple fosters a dynamic eco-system for customers. In India's emerging market, Entuple focuses on advancing R&D across various domains and closing industry-education gaps through innovative platforms and solutions.

About the workshop :

From Concept to Reality: A Hands-On Workshop on Design and Development of Antennas and RF Components for 5G Wireless Communication is an immersive and comprehensive training program aimed at engineers, researchers, and enthusiasts in the field of wireless communication. This workshop provides a deep dive into the intricacies of antenna and RF component design tailored for the burgeoning 5G technology. Following the theoretical foundation, the workshop transitions to hands-on sessions where participants will engage in the design and simulation of antennas using advanced software tools. Attendees will learn how to optimize antenna parameters for performance, efficiency, and compactness. Also, have an insight into fabrication MITS machine from Japan and testing them on Anritsu VNA.

This workshop is ideal for professionals looking to enhance their skills, students preparing for careers in wireless communication, and anyone passionate about the future of connectivity. Join us in this transformative learning experience and take your first step from concept to reality in the world of wireless communication.

Objectives :

- To understand the state-of-the-art antenna design for ubiquitous wireless communication
- To learn simulation techniques for antenna performance prediction.
- To get hands-on experience with fabrication processes.
- To test and analyse the performance of fabricated antennas.

Key Topics to be Addressed :

- Introduction to Computational Electromagnetics
- Narrowband, Wideband antenna and RF filters
- Antenna Arrays
- Metamaterials/FSS/AMC
- Wearable Antenna
- Biomedical Engineering with Multiphysics
- 5G Digital Twin concept
- Hands-on session on Fabrication technology with MITS Japan
- Hands-on Testing RF components with VNA and associated components upto 40GHz with 5G technology

Technological Partners (OEMs) :
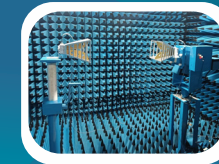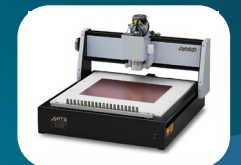
Workshop Outcome :

Participants will gain a comprehensive understanding of the end-to-end process involved in designing, simulating, fabricating, and testing antennas, equipping them with the skills to undertake their own antenna projects.

Important Dates :

- Registration starts on 1st Aug and ends on 31st Aug 2024
- Confirmation from the Institute will be sent on 5th Sep 2024
- Confirmation will be based on merit and first-come, first-served basis only

▶ **WORSKHOP DATES** : 23rd Sep to 27th Sep 2024

▶ **VENUE :** ECE Department, IIIT - Allahabad

▶ **WHO CAN ATTEND :** Faculty members and Research scholars

CHIEF GUEST :

Prof. Mukul S. Sutaone
Director,
IIIT, Allahabad

SPECIAL GUEST :

Mr. Mehta S. D.
Founder & Director,
Entuple Technologies

GUEST OF HONOUR :

Prof. Kumar Vaibhav Srivastava
Professor,
Department of Electrical Engineering,
IIT, Kanpur

Prof. Manoj Kumar Meshram
Professor,
Department of Electronics Engineering,
IIT, BHU

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Workshop fee details :

- Registration Charges without accommodation: Rs. 600
- Accommodation Charges in Hostel for Students (Twin Sharing Basis) for 5 days: Rs. 1690
- Accommodation Charges in Guest House for Faculty / Industry Professionals (Twin Sharing Basis) for 5 days: Rs. 3960
- Note: Food charges are to be paid at the mess as per actual consumption.

Registration Link :

https://forms.gle/EeMQSyeBwoSbCRej6

Scan QR
to Register

Special Note :

- Certificates will be provided to all participants who achieve 100% attendance.
- All Hands-on sessions will be provided by industry experts from Entuple Technologies on Ansys Tools, MITS Machines and Anritsu Equipment.
- The maximum number of participants will be 50. Merit will be based on a first-come, first-served.
- Accommodation will be provided based on availability and only for participants from outside the area.

www.entuple.com