

# One Week Workshop on “Recent Trends in Design and Measurement of RF and Microwave Devices”

on

May 22-27, 2023



Organized by

Department of Electronics & Communication  
Engineering

Jaypee Institute of Information Technology, Noida  
(Declared Deemed to be University under Section  
3 of UGC Act 1956)

In Association with

**Anritsu**  
Advancing beyond



## About the Institute

JiIT, a leading Engineering Institute was established in the year 2001 with the vision of becoming a center of excellence in the field of IT & related emerging areas of education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity, and management. The Institute offers Undergraduate, Post-graduate and Doctoral programs in the disciplines of Electronics & Communication Engineering, Computer Science Engineering, Information Technology, Biotechnology and Management. The Institute aims to develop technocrats with skill and capability to design and implement computer-based systems, tools, and equipment. JiIT has been constantly ranked amongst the top engineering Institutes in Delhi NCR.

## About the Department of Electronics and Communication Engineering

The Electronics and Communication Engineering (ECE) department has created a collaborative atmosphere that encourages the free interchange of ideas, allowing for the growth of research, creativity, innovation, and entrepreneurship, as well as ensuring that students reach their maximum potential. The department at JiIT runs a 4-year B.Tech degree program, Integrated M.Tech Programs, M.Tech Programs with specializations in Machine Learning and Signal Processing, Microelectronic systems, Wireless Communication and Internet of Things. With an objective to bring the benefits of electronics to every walk of life and to make our students standalone develop the Indian electronics industry as a global player. There are six thrust areas in which the department faculty/students work: Internet of Things (IoT); Artificial Intelligence (AI) and Embedded system; RF and Microwave Engineering; Semiconductor Devices; Signal Processing; VLSI Circuits and Systems; Wireless and Optical Communication. We also have Ph.D. degree program in key areas of current technological importance.

## JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA



## About the Workshop

The workshop on "Recent Trends in Design and Measurement of RF and Microwave Devices" is to explore the concepts of Electromagnetics, RF and Microwave Engineering, and simulations and testing of microwave devices. The workshop caters to the need of faculty members, researchers, and industry people working in the area of RF and Microwave domain. The workshop program is efficiently designed by looking into the requirement of the current RF field. The workshop includes the technical talk by eminent speakers, technical sessions by Ansys HFSS officials, and testing on Vector Network Analyzer & Anechoic Chamber facilities recently developed in the department. The complete design process of making any microwave components will be helpful to all beginners and people already working in the area of RF and Microwave. The objective of this workshop is to provide a common platform for researchers, academicians, industry persons and UG/PG students to enhance their knowledge.

## Workshop Highlights

- ✚ Expert lectures by leading speakers from premier institutions.
- ✚ Recent trends, challenges and possible solutions in RF and Microwave Engineering domain: an industrial perspective.
- ✚ To discuss the recent advancements in the field of antennas, filters, filtering antennas for high frequency applications.

- To explore the concepts of advanced metasurfaces, absorbers, frequency selective surfaces, polarization converters.
- To discuss the basics of microwave components parameters measurement.
- Hands on new updates in Ansys Electronics Desktop and modelling of basic structures.
- Design and simulation of Substrate Integrated Waveguides (SIW) devices on Ansys Electronics Desktop
- Testing and measurement of microwave components/devices using Vector Network Analyzer and anechoic chamber.

#### MODE OF CONDUCTION

- OFFLINE

#### REGISTRATION FEE AND DETAILS

- Last date of Registration: **30<sup>th</sup> April 2023**
  - INR 2000 / per registration
  - Payment can be made through <https://payments.cashfree.com/forms/JIITWCS>
- OR

Scan here:



Registration Link: <https://forms.gle/rwbt5KLiMZ9cRlMY8>

- Total number of seats is limited to 35 for external participants (other than JIIT) and selection will be based on **First-cum-First serve basis**.
- The registration fees include all six days of Lunch and High Tea. The participants must bear their own traveling and accommodation expenses.

- Accommodation at nominal charges may be available on the walking distance from workshop venue. (Interested participants may contact us)**
- All the sessions would be held at Jaypee Institute of Information Technology, Sector 128 Noida Campus.

#### WORKSHOP AGENDA

- Technical Talk by **Prof. M. K. Meshram**, Professor & Head, Department of Electronics Engineering, IIT (BHU), Varanasi on the topic "**Reconfigurable Reflect Array Antennas for 5G mm Wave Applications**"
- Technical Talk by **Prof. Shweta Srivastava**, HoD & Dean (A&R), JIIT Noida on the topic "**SIW Cavity Backed Antennas**"
- Technical Talk by **Dr. Raghvendra Kumar Chaudhary**, Associate Professor, Department of Electrical Engineering, IIT Kanpur on the topic "**Multi-Function Antennas with Modern Wireless Applications**"
- Technical Talk by **Dr. Saptarshi Ghosh**, Assistant Professor, Department of Electrical Engineering, IIT Indore on the topic "**Frequency Selective Surfaces and its Applications toward Microwave Rasorbers**"
- Technical Talk by **Dr. Kushmanda Saurav**, Assistant Professor, Department of Electrical Engineering, IIT Jammu on the topic "**Design of the Linear to Circular Polarization Converters for Microwave and Millimeter Wave Applications**"
- Technical Talk by **Dr. Veer Singh Gangwar**, Scientist-F, Radar and Microwave Division (RAMD), LRDE (DRDO), Bangalore, on "**Latest Trends in Active Phased Array Antenna Technology**"
- Technical Talk by **Dr. Kirti Dhvaj**, Assistant Professor, CARE, IIT Delhi on the topic "**The Dielectric-Loaded Evenescent Mode Filtering Antennas**"
- Technical Talk by **Dr. Kranti Kumar Katare**, Ericsson Antenna Technology Rosenheim, Germany, on the topic "**Recent Trends, Challenges, and Possible Solutions in Antenna Domain: An Industrial Perspective**"
- Brief "**Introduction to Ansys HFSS**" by **Mr. S. K. Agarwal**, Entuple Technologies Pvt. Ltd.
- Technical Talk on Features of HFSS and "**Hands-on experience in the Advanced Antenna Design using Ansys**

Electronics Desktop 2022.R2", **Mr. Shashi Kumar**, Entuple Technologies Pvt. Ltd.

- Hands on Experience on Ansys Electronics Desktop for the **Design and Simulation of Microwave Absorbers and SIW-based Structures**
- Demonstration of latest **Anritsu Vector Network Analyzers** for testing of different microwave devices
- Testing and characterization of different readily available antennas and filters parameters
- Demonstration of the **Anechoic Chamber facilities** recently developed and testing of antennas far-field parameters.

#### WORKSHOP COORDINATORS

**Dr. Bhagirath Sahu**

Assistant Professor (Sr. Grade), Department of Electronics and Communication Engineering, JIIT, Noida

**Dr. Ashish Gupta**

Assistant Professor (Sr. Grade), Department of Electronics and Communication Engineering, JIIT, Noida

**Mr. Raghvendra Kumar Singh**

Assistant Professor (Grade-II), Department of Electronics and Communication Engineering, JIIT, Noida

**Host Location:**

Jaypee Greens Internal Rd, Near Jaypee Public School, Sector 128, Noida, Uttar Pradesh-201304

**Nearby Railway Station:** Hazrat Nizamuddin, New Delhi

**Nearby Metro Stations:** Sector 137, Noida, Okhla Bird Sanctuary, Botanical Garden

**Location URL:**

<https://maps.app.goo.gl/Fx11AiRyVc9Z63Gz6>

**For any queries, contact:**

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