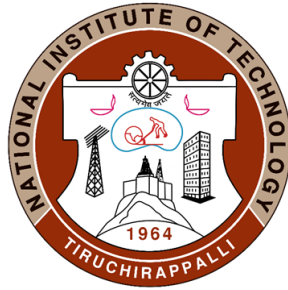




ACCELERATE  
विद्यया



# Recent Trends and Future Prospects for Beyond 5G in RF, Microwave, and Millimeter Wave Technologies

(Under the KARYASHALA Scheme - A SERB initiative)

Organized by

Department of Electronics and Communication Engineering

National Institute of Technology, Tiruchirappalli

July 23 to July 29, 2023

## About The Institute:

National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 undergraduate and 23 postgraduate programs in disciplines spanning engineering, science, architecture, and management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. NIT Tiruchirappalli retained its No. 1 position among all NITs, 7th year in a row in the "India Rankings 2022", released by NIRF. The Institute has signed MoUs with various Industries and Institutions both in India as well as in abroad to promote collaborative research and consultancy.

## Department of Electronics and Communication Engineering:

The Electronics and Communication Engineering (ECE) Department was established in the year 1968. The department offers Undergraduate (UG), Postgraduate (PG), M.S. (By Research) and Ph.D. degree programs that provide students with the knowledge and tools they need to succeed in the Electronics and Communication Engineering. Research in the department focuses on high-impact various disciplines: Communication systems, Wireless networks, Signal and Image Processing, RF MEMS and MIC, Microwave antennas, Optical communication and Photonics, VLSI technologies.

## About the Programme:

The primary objective of this high-end workshop program under "Karyashala" is to provide exposure to PG and Ph.D. scholars to the emerging technologies and recent advancements in RF, Microwave, and Millimetre Wave Technologies. The participants will be exposed to theoretical concepts and practical design aspects of various antennas, high-frequency circuit representation, and device modeling. The hands-on sessions on the design of antennas and high-frequency circuits along with prototype testing will also be discussed. A measurement set-up along with various equipment required for testing the characteristics of antennas, and microwave circuits and components will be shown to the scholars so that scholars will be able to learn everything about RF, Microwave, and Millimetre Wave Technologies starting from design to its testing.

## Focus Areas

- Antennas for Defense, Space, Military, and Telecommunication Application
- Electromagnetics in RF, Microwave, and Millimeter Wave Technologies
- Microwave Circuits and Components
- Compact and Broadband Antennas
- Flexible Antennas for Wearable Devices
- MIMO Systems for 5G and Beyond
- Hands-on session on the design of antennas and high-frequency circuits
- Prototype testing and measurement

**Target Audience:** Research scholars, PG Students

**Resource Persons:** The course faculty includes resource persons from IITs, NITs, IIITs and Industry.

**The number of participants is restricted to 25.**

**Registration Fee:** Nil. TA will be given for Sleeper class fare, Free Food & Accommodation will be provided

## How to apply:

- Please fill the online form using the link: <https://forms.gle/YQHViiHWRoLP3wLA6>. After applying through the link, intimate us at [karyashala.nitt.ece2023@gmail.com](mailto:karyashala.nitt.ece2023@gmail.com)
- The applicants must produce a letter of authentication from their Supervisor/HoD/Head of Institute indicating their association with institute and "No Objection Certificate (NOC)" for allowing their student to undergo karyashala, if selected. The last date to apply is ~~5th June 2023~~ 12th June 2023. If selected, you will be intimated through email.

**Chief Patron**  
Dr. G. Aghila  
Director, NIT Tiruchirappalli

## Patrons

Dr. V. Sankaranarayanan  
Dean (Research and Consultancy)  
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