Two weeks short term course
On

Introduction to Electromagnetic Metasurfaces and General Periodic Structures

Sponsored by Scheme for Promotion of Academic and Research Collaboration (SPARC)

Organized by

Department of Electronics and Communication Engineering

National Institute of Technology, Tiruchirappalli

January 07 to January 21, 2025

About NIT Tiruchirappalli:

National Institute of Technology Tiruchirappalli (NITT) 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 in the NIRF ranking. NITT has a sprawling campus of over 800 acres, and is equipped with state-of-the-art infrastructure, cutting-edge laboratories, modern learning facilities, and industry partnerships to address global challenges. 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 vision ofthe Department is to provide valuable resources for industry and society through excellence in technical education and research. 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 Course:

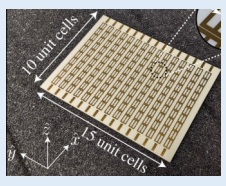
This lecture series focus on the fundamental concepts and cutting edge research in periodic structures, electromagnetic metasurfaces, and leaky wave antennas. The course is designed to provide a comprehensive understanding of the theoretical principles, analytical techniques, and practical realizations in these domains, equipping students and researchers with the tools to explore and innovate in the field of modern electromagnetic systems.

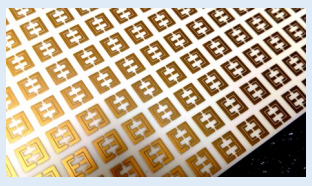
Course Instructor

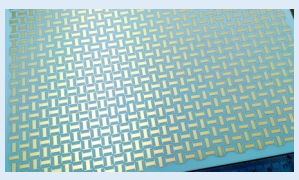
Dr. Shulabh Gupta
Associate Professor
Department of Electronics
Carleton University
Ottawa, Canada

Course Content

- Fundamentals of Periodic Structures
- Floquet Analysis
- Unit cell periodicities
- Electromagnetic Metasurfaces
- Boundary Conditions in Electromagnetics Metasurfaces
- Temporal Dispersion and Spatial Dispersion
- Advanced Topics in Metasurfaces
- Leaky-Wave Antennas (LWAs)
- Case Studies and Applications







Target Audience: UG, PG, Research scholars, Faculties.
Registration Fee: Nil.
How to apply: https://forms.gle/SosSH4xpXbzLnEtB8 , Please fill the online form using the link.
Last date of Registration: ***06 January 2025***
Certificates will be provided to participants with a minimum of 80% attendance in the course.

Coordinators

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