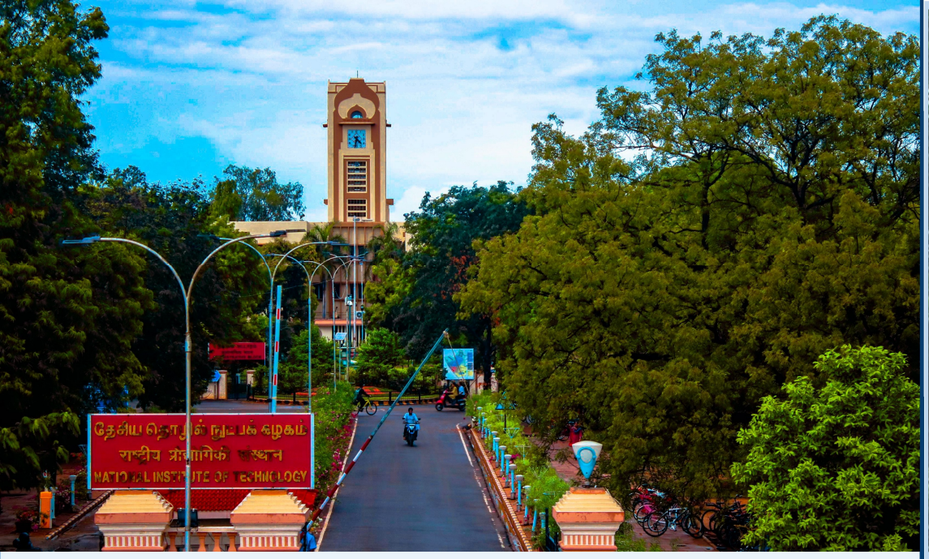

National Institute of Technology, Tiruchirappalli

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli (NITT) was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to catering the needs of manpower in technology for the country. NITT is one of the 31 National Institutes of Technology established by the Government of India and ranks first among all the NITs in NIRF ranking. The institution offers Undergraduate Courses in ten branches and Post Graduate Courses in twenty-six disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. in all the departments.

Department of Electronics and Communication Engineering

The Electronics and Communication Engineering (ECE) Department was established in the year 1968. The vision of the department is to provide valuable resources for industry and society through excellence in technical education and research. The Department offers Under graduate, Post Graduate, Research Degrees (M.S. & Ph.D.) programs. Research in the Department focuses on various disciplines such as Communication Systems, Wireless Networks, Signal and Image Processing, RF MEMS, Microwave Antennas, MIC, Optical Communication, Photonics and VLSI systems.

SPARC
Scheme for Promotion of Academic and Research Collaboration

Workshop
on
RIS-Aided OTFS and Emerging 6G Wireless Systems
(24th - 28th August, 2026)
Organized by
Department of Electronics and Communication Engineering
National Institute of Technology, Tiruchirappalli

Organized by:
Department of Electronics and Communication Engineering,
NIT Tiruchirappalli,
India.

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

Collaboration with:
National Research Tomsk Polytechnic University, Russia.

SPARC

The Scheme for Promotion of Academic and Research Collaboration (SPARC) is an initiative of the Ministry of Education, Government of India, aimed at strengthening the research ecosystem of Indian higher educational institutions. It promotes academic and research collaboration between premier Indian institutions and leading global institutions from selected countries to address problems of national and international relevance. The scheme supports visits and long-term stays of international faculty in India for teaching and research, training visits of Indian students to premier laboratories abroad, and the joint development of niche courses, high-quality books and monographs, translatable patents, demonstrable technologies, and impactful research outcomes.

Website: https://sparc.iitkgp.ac.in/

Registration fee

Registration fee is not charged. The course is completely sponsored by SPARC (Scheme for Promotion of Academic and Research Collaboration), SPARC Project Code – 3524, Titled: UAV Assisted and Reconfigurable Intelligent Surface Supported B5G Communication

Course Features

- E-certificates will be provided to all participants upon successful completion of the programme.

General Information

- **Eligibility:**Students pursuing PG or PhD, Faculty in Electronics and Communication Engineering, or any other specialization relevant to wireless communication or signal processing. .
- After last date of registration, selected candidates will be intimated through email.
- Selected candidates will have to acknowledge their participation through return email failing which the **waitlisted candidates may be selected.**
- Candidates will be selected on the **basis of merit.**

Venue

Department of Electronics and Communication Engineering, NIT Tiruchirappalli.

Workshop Objective:

- To expose the participants to the recent advances in B5G wireless communications and introduce them to technologies such as Reconfigurable Intelligent Surfaces, UAV-assisted connectivity, Orthogonal Time Frequency Space (OTFS) Modulation, and Visible Light Communication.
- To develop deeper knowledge of the channel models for time-varying channels and phase optimization strategies for Reconfigurable Intelligent Surfaces.
- To provide participants with hands-on experience in recent PHY technologies using tools such as MATLAB and Python.

Abstract:

This SPARC workshop focuses on Reconfigurable Intelligent Surface (RIS)-enabled B5G/6G networks, highlighting how RIS can enhance coverage, energy efficiency, and reliability when combined with UAV-assisted connectivity, semantic communications, hybrid VLC/RF links, and RF energy harvesting/SWIPT, Orthogonal Time Frequency Space (OTFS). Beyond research presentations, the workshop includes hands-on sessions where participants will work with practical workflows for (i) Linear Time Variant/Invariant channel modelling, (ii) Delay-Doppler representation of the channel, (iii) Simulation of OTFS transmitter and receiver algorithms, and (iv) semantic-aware transmission and (rate, latency, fairness, energy) Visible Light Communications. Attendees will engage in guided labs using reproducible simulation templates (e.g., MATLAB/Python) and will leave with example codes, parameter sets, and baseline models that can be extended for their own research. The workshop is designed for postgraduate students, early-career researchers, and practitioners seeking both a clear conceptual foundation and practical implementation experience in OTFS and RIS-centric 6G systems.

Registration Procedure :

Register online using the following link or QR code

https://forms.gle/v64Ch11h62EwBvbx9

Last Date of Registration:
22.08.2026(11.59p.m)

Coordinator:

Dr. P. Maheswaran,
Assistant Professor, ECE Dept.,
NIT Tiruchirappalli, India.

Co-coordinator:

Dr. P. Muthuchidambaranathan,
Professor, ECE Dept.,
NIT Tiruchirappalli, India.

Key Resource Person:

Prof. Dushantha Nalin K. Jayakody

Prof. Dushantha Nalin K. Jayakody is a Senior Member of IEEE, a Fellow of the IET, and received his Ph.D. in Electronics and Communications Engineering from University College Dublin, Ireland, in 2014, and his M.Sc. degree from Eastern Mediterranean University, Turkey. He was ranked among the top 2% of scientists worldwide by the Stanford–Elsevier list in 2021, 2022, and 2023, and received the Sri Lankan Presidential Award in 2021 for outstanding research performance. Since 2022, he has been serving as a Professor at Lusófona University, Portugal, and currently serves as the Vice Chair of IEEE ComSoc. He has also served as a SPARC Professor at the National Institute of Technology, Tiruchirappalli, India. His academic career includes postdoctoral research at the University of Tartu and the University of Bergen, professorships at Tomsk Polytechnic University, Russia, and leadership roles at Sri Lanka Technological Campus. Prof. Jayakody has supervised eight Ph.D. students, several Master's and undergraduate students, and five postdoctoral researchers. He has secured nearly USD 6 million in research funding and has authored more than 230 peer-reviewed publications, including journals, conferences, and books.

Additional Speaker:

Urvashi Chaudhary (Graduate Student Member, IEEE)

Ph.D. Scholar, COPELABS, Universidade Lusófona, Lisbon, Portugal. Her research focuses on 5G/B5G wireless networks, RSMA, network slicing, AI-enabled wireless communications, and the Internet of Healthcare Things (IoHT).

Student Coordinators:

Mr. E. G. Hariganesh (Mobile No: 9788303279)
Mrs. C. Sathya (Mobile No: 7708459832)