



## ANALYSIS OF INTELLIGENT REFLECTING SURFACE SYSTEMS IN PRESENCE OF INTERFERENCE

(Under the VRITIKA Scheme - A SERB initiative)

Organized by

Department of Electronics and Communication Engineering

National Institute of Technology, Tiruchirappalli

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### 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, 6th year in a row in the “India Rankings 2021” 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:

Intelligent reflecting surface systems have gained lots of importance in wireless research recently. This is because they are seen as a key enabler in increasing the data rates in 6G systems. Most of the research in intelligent reflecting surface systems have not considered the effect of interference so far. But as we know, interference is ubiquitous in wireless systems and cannot be ignored. In this internship we will try to model interference in wireless systems and explore their effect on intelligent reflecting surface systems. Different metrics such as probability of coverage, capacity, probability of error etc. will be analyzed.

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

**The number of participants is restricted to 5.**

**No Registration Fee. TA will be given as per GOI norms, Free Food & Accommodation will be provided.**

### How to apply:

1. Please fill the online form using the link: <https://forms.gle/VnKcohD7tyzjLdoB6>. After applying through the link, intimate us at [vritika.nitt.ece@gmail.com](mailto:vritika.nitt.ece@gmail.com)

2. 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 Vritika internship, if selected. The last date to apply is **22nd November 2022**. If selected, you will be intimated through e-mail.

### Coordinator:

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