



Science and Engineering Research Board
(A statutory body under DST, Govt. of INDIA)



Sponsored
One day Online Workshop on

AI FOR INTELLIGENT OPTICAL COMMUNICATION SYSTEMS AND NETWORKS

Under Scientific Social Responsibility (SSR) Policy
31st May, 2023 (Wednesday)

About SERB Scientific Social Responsibility (SSR) Policy:

SERB has adopted Scientific Social Responsibility (SSR) Policy to imbibe a culture of social commitment among SERB Grantees. The policy intends to effectively utilize scientific infrastructure and expertise of SERB grantees to benefit other Science and Technology stakeholders especially the less-endowed researchers and the society. SSR initiatives include infrastructure sharing, mentoring young faculty/researchers, fostering research culture among students and the academic community and public outreach and knowledge dissemination. SERB SSR policy ensures that the SSR activities are minimal and are aligned and integrated with the Grantees scientific research activities. It is expected that the combined efforts of all the SERB Grantees would lead to development of rich research culture of integrated scientific and social commitments in the country. ***This workshop is organized as a part of SSR activity under the SERB funded project (File No: EEQ/2019/000647).***

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. The institution offers Under Graduate Courses in ten branches and Post Graduate Courses in twenty-one disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. in all the departments. The National Institute of Technology Tiruchirappalli is ranked 21 in overall category and retained its No.1 position among all NITs in 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. Research activities at NIT-T have been growing in all metrics with respect to the quantity and quality of researchers.

About the 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 Workshop:

The objective of this workshop is to disseminate the knowledge on advance optical communication systems and networks. It mainly focuses on implementing intelligent monitoring of optical communication systems and management of optical networks enabled by artificial intelligence for efficient communication. The workshop aims to provide a hands-on demo of the advanced optical communication system and network simulation tool and MATLAB Deep Learning Toolbox for faculty members, industrial delegates, research scholars and post graduate students.

Workshop Contents:

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| <ul style="list-style-type: none"> • Introduction to optical communication systems and networks • Need for Optical Performance Monitoring and Modulation format recognition • AI for intelligent optical networks • Designing optical communication system model using simulation software | <ul style="list-style-type: none"> • Implementation of optical networks and its monitoring • Data collection and Preparation • Designing Deep Neural Network for intelligent networks • Experimental prototype of fiber optic communication system |
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Organized by

Dr. R. K. Jeyachitra,

Principal Investigator (EEQ/2019/000647), Associate Professor, Department of ECE, NIT Trichy

Advisory Committee

Dr. M. Bhaskar

Head of the Department, Professor, Dept. of ECE, NIT Trichy

Dr. D. Sriram Kumar

Professor, Dept. of ECE, NIT Trichy

Dr. R. Pandeewari

Associate Professor, Dept. of ECE, NIT Trichy

Resource Persons

Dr. D. Sriram Kumar, Professor, Dept. of ECE, NIT Trichy

Mr. Jaspreet Singh, CEO, Fiberonics, Authorised Business Partner- VPIphotonics GmbH, Berlin, Germany

Dr. Varun P. Gopi, Assistant Professor, Dept. of ECE, NIT Trichy

Organizing Committee

Ms. Sindhumitha Kulandaivel

Mr. M. Pradeep Doss

Mr. R. Sivarajan

Research Scholars,
Lightwave Communications Research Laboratory, NIT Trichy

Important Guidelines:

Faculty members of the AICTE/UGC approved institutions, Research scholars and PG students are eligible to apply for the workshop.

Interested participants are required to register in the following link: <https://forms.gle/SnHZhXOYJ845wZNL8>.

Number of participants is limited to 50 based on first come first serve.

Last date for Registration is **29.05.2023 by 5:00 PM.**

No Registration fee.

After verifying the credentials, final confirmation of participation and the meeting link will be communicated to the shortlisted participant's email-ids on **29.05.2023.**

Certificate of Participation will be provided only after completion of workshop to all the attendees.

For Queries- Contact: **8754031203, 9952048600** and Email ID: **aion.nitt@gmail.com**