

Online QIP-AICTE Sponsored Short Term Course on

Recent Trends of Microwave and Photonics Technology: 5 G and Beyond

December 06 - December 11, 2021

ORGANIZED BY



**Department of Electronics and Communication Engineering
Sant Longowal Institute of Engineering & Technology
(Deemed to be University Under MoE, Government of India)
Longowal -148106, Dist. Sangrur (Punjab)**

SPONSORED BY



**Quality Improvement Programme
All India Council for Technical Education (AICTE), New Delhi, India**

Chief Patron

Prof. Shailendra Jain
Director, SLIET

Dr. Kundan Kumar
Assistant Professor

Patron

Prof. J. S. Dhillon
Dean (Academics)

Coordinators

Chairman

Prof. Surinder Singh
HOD (ECE)

Er. Vipul Singhal
Assistant Professor

Contact Persons:

Dr. Kundan Kumar, Assistant Professor (+91-9608576776), kundankumar@sliet.ac.in
Er. Vipul Singhal, Assistant Professor (+91-9997623358), vipulsinghal@sliet.ac.in

ABOUT THE INSTITUTE



Sant Longowal Institute of Engineering & Technology (SLIET), Deemed to be a University, has been established and funded by MoE, Government of India in 1991, to provide technical education in emerging areas of Engineering and Technology. The institute caters to the technical manpower requirements at various levels by adopting a concept of a modular system in imparting professional education with an emphasis on practical training in the industry. The study programs include various courses at certificate, diploma, B.E. M.Tech. and Ph.D. levels in different branches of engineering and technology. The institute has a sprawling area of 451 acres of land. Surrounded by lush green land, the campus of the institute extends a beautiful and well-developed area with many topographically featured picturesque landscapes.

INSTITUTE VISION

SLIET shall strive to act as an international podium for the development and transfer of technical competence in academics through formal and non-formal education, entrepreneurship, and research to meet the changing need of society.

INSTITUTE MISSION

- Nonformal, flexible, modular, multipoint entry programs in engineering and technology and in the areas like rural development, educational planning, information, and management sciences.
- Education and training in modern technology areas.
- Promotion of self-development among the students.
- Extension services to industry working population, passed-out students, social organizations, and institutions of research and higher learning.
- Close interface with the industry to conduct research on the basis of manpower requirements leading integrated educational planning curriculum development and instructional material preparation in technology and inter-disciplinary areas.

DEPARTMENT OF ECE

The Department of Electronics and Communication Engineering aims to provide quality education to youngsters so that they can contribute to the development of the nation. Promoting Industry involvement in student projects, placement, joint R & D ventures, organizing collaborative programs with premier institutions are the prime objectives of the department. The department has experienced, dedicated, and highly qualified faculty in specialized areas with significant publications in reputed journals. The curriculum reflects dynamic changes relevant to today's marketplace and offers more opportunities for internships and training to the students. The courses being run by the department include:

- Integrated Certificate-Diploma (ICD) Program
- B.E. (Electronics & Communication Engg.)
- M.Tech. (Electronics & Communication Engg.)
- Ph.D. Program

ABOUT THE PROGRAMME

The main aim of this program is to provide in-depth knowledge to the Engineers, faculty members, and researchers undergone for R&D and communication industry. Microwave and Photonic Technology is playing a central role in most of the present research and development in communication industries such as 5G and IoTs applications, and other commercial activities in communication Engineering. This program focuses on the design and development of the Microwave and Millimetre Waves circuits, RFID, high-speed optical fibers transmission systems, Photonic integrated circuits, and plasmonic sensors using theoretical techniques as well as an advanced software tool.

OBJECTIVES OF PROGRAMME

The main objective of this training program are as follows: -

- To expose the participants to various modeling, simulation, and design techniques, applied to contemporary problems in the field of Microwave and Photonic Technology
- To train the Engineers, Researchers, and faculty members with the latest software and hardware.
- To provide a forum to exchange and stimulate new ideas.

RESOURCE PERSONS

Renowned experts and researchers from premier Institutions (IIT/NITs) and other organizations and industries will deliver expert lectures.

CONTENTS OF PROGRAMME

- Nanotechnology Enabled On-Chip Optoelectronic Devices for Optical Communication and Interconnects
- Introduction of Microwave and Photonics Technology
- Introduction to RF Filters
- Basic of Transmission line
- Microwave and Millimetre Waves circuits
- Theoretical Modeling of RF filters
- MIMO Antennas
- Self-Multiplexing Antennas
- Terahertz Antenna and Filters
- Photonic Sensors
- Elastic Optical Networks
- RF Sensor for Medical Applications

PROSPECTIVE PARTICIPANTS

Faculty members, Research scholars, and PG Scholars of the AICTE approved Engineering institutions/polytechnics. Seats are limited to 100 Participants. Preference will be given on a first come first serve basis.

Last Date of Registration: 03-December-2021, Time: 5:00 PM

REGISTRATION FEE AND LINK FOR REGISTRATION

Participant's Type	Fee	Bank Details
Industry Persons	Rs. 700	A/C No. : 5112411588 Bank Name: Central Bank of India Branch: SLIET Campus, Longowal IFSC Code: CBIN0283105
Faculty Members	Rs. 500	
Staff Members	Rs. 300	
Research Scholar/Students	Nil	

The registration will be done online using the link

<https://forms.gle/69ukWg85A8u3CS4BA>

IMPORTANT NOTE

- There is a mandatory requirement of at least 80% attendance and 60% marks in the online examination for issuing the certificates.
- An online examination from the contents of the STC has been scheduled for 11-December-2021
- There will be a total of 24 sessions of 90-120 minutes.
- One lecture will be on the National Education Policy 2020 (NEP-2020)