



Short term Course On Integrated Optics

Organized by Electronics and Communication Engineering Dept., Punjab Engineering College (Deemed to be University), Chandigarh in technical collaboration with IEEE Chandigarh Subsection

DATE : 18-22 JAN, 2021

OBJECTIVES OF THE COURSE

Integrated optics is a technology which aims at constructing so-called integrated optical devices or photonic integrated circuits or planar lightwave circuits, containing several or many optical components which are combined to perform a wide variety of optical functions. Recent developments in nanostructures, metamaterials, and silicon technologies have expanded the range of possible functionalities of optical devices on highly integrated chips. Photonic integrated circuits have the ability to perform all the operations with light as the quintessential factor. Photonics has high potential of development, but it needs a thorough scientific research to perform light manipulation for all operations. Because of its limitless potential, Photonics find its application in on chip communication, healthcare diagnostics, processing industry, mobility, safety and security, and agro-food etc.

With focus on advancements in integrated photonics, this short term course (STC) will serve as a guide for academic researchers and faculty on latest aspects of light-matter interactions on-a-chip. Covering the progress from theory to technical descriptions, the course plans to cover the advancements in a wide range of topics, including Silicon Photonic, Nonlinear Optics, optoelectronic materials and devices, Plasmonics, Bio-Nano photonics etc.. The course will give an insight into advancements happening in the field of integrated photonic devices in order to meet the needs of relevant industry, space, defense and research organization.

TOPICS TO BE COVERED

The major topics to be covered in short term course are:

- Silicon Photonic Integrated circuit
- Nonlinear Optics
- Optics System Design
- Semiconductor Photonics
- Bio Nano photonics
- Numerical Simulations
- Quantum nanophotonics
- Photonic Crystals
- Bio-inspired photonic nanostructures
- Two-dimensional photonic monolayers
- Plasmonics

LIST OF RESOURCE PERSONS

- Faculty from IISc, IITs, Institutes and Industry of National repute.
- Scientists/Engineers from DRDO/ ISRO /CSIR, labs etc.

COORDINATORS

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REGISTRATION

The registration will be done online using following link. The link is also available at www.pec.ac.in.

Link for Registration:

<https://forms.gle/AMygMGaqyDTMB4zY7>

Mode of the course

Online
(Details will be shared with registered participants only through E-mail)

Time 10:00 AM Onwards (Daily)

Registration Details

This event is **FREE** to attend. Seats are limited. Advance registration is recommended

Last Date of Registration Certificates

JAN 14, 2020

E-Certificates will be issued to the participants after successful completion of the course

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