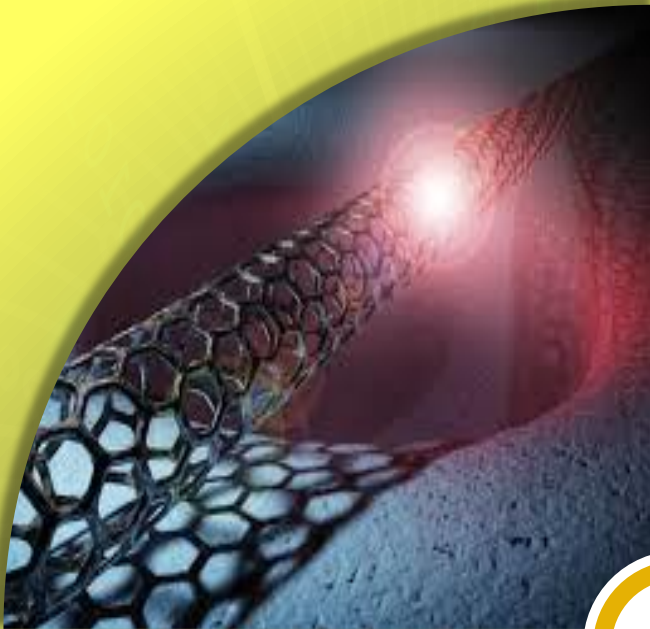


AICTE QIP Sponsored One Week Faculty Development Programme
on
INTELLIGENT NANOPHOTONICS
(INP-2021)

October 4-9, 2021 (Online)



Last date

Oct 01, 2021

Registration Link

**[https://forms.gle/cAZihQE
m6HB8oMGQ6](https://forms.gle/cAZihQE
m6HB8oMGQ6)**

Registration Fee

Free of Cost



- Concepts and novel approaches to nanophotonics
- Photonic crystals in 1, 2 and 3 dimensions
- Introduction to machine learning, artificial intelligence (AI) and its applications
- AI perspective and approaches to nanophotonics
- Advancements in the area of biophotonics, optofluidics and engineering
- On-chip optoelectronic devices for optical communication and interconnects
- Metamaterials and their applications
- Micro-opto-electro-mechanical systems
 - Reconfigurable hybrid silicon nanophotonics
 - Predicting adsorption energetics of nano material using machine learning
 - Nanoplasmonic sensors
 - Special Session on NEP 2020

- Faculty members, Research Scholars and PG students of AICTE approved Institution may join the online Faculty Development programme (FDP) and enhance their knowledge.
- Participants from all discipline are eligible to apply



Sponsored by
All India Council for Technical Education, New Delhi
Organized By
National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh



Resource Persons

Prof. S.S. Pattnaik, Director, NITTTR Chandigarh

Prof. Achanta Venugopal, Director, National Physical Laboratory, New Delhi

Dr. Ranjan Jha, IIT Bhubaneswar

Dr. Ramesh Kumar Sonkar, IIT Guwahati

Dr. Naresh Emani, IIT Hyderabad

Dr. Srinivas Talabattula, IISc Bangalore

Dr. Rajesh V. Nair, IIT Ropar

Dr. Sachin Kumar Srivastava, IIT Roorkee

Dr. Mukesh Kumar, IIT Indore

Dr. Rajesh Kumar, IIT Roorkee

Dr. Shashi Shekhar Jha, IIT Ropar

Dr. Anshuman Kumar Srivastava, IIT Bombay

Expert from INSOFE, Bengaluru

Expert from TestRight Nanosystems Pvt. Ltd. (IIT Delhi Start-up)

Expert from Impulse Technology, New Delhi

Patron

Prof.(Dr.) Shyam Sundar Pattnaik

Director, NITTTR Chandigarh

Coordinators

Dr. Mala Kalra

Assistant Professor
(CSE)

NITTTR Chandigarh

Contact No.: 0172-2759737

Email: malakalra@nitttrchd.ac.in

Dr. Ashok Kumar

Associate Professor
(Applied Science Deptt.)

NITTTR Chandigarh

Contact No.: 0172 2759772

Email: ashokku@nitttrchd.ac.in

About the Course

'Intelligent Nanophotonics' is an interdisciplinary, fast-growing field, closely related to optics, electronics, nanostructures, artificial intelligence, etc. Its in fact merging of photonics and artificial intelligence at the nano-scale. The two research domains differ from very basis. However, it is promising to apply artificial intelligence methods to data-driven nanophotonic design discovery. Advanced computational methods and artificial intelligence, especially its subfield of machine learning, have led to revolutionary development in many applications, such as web searches, computer vision, and speech/image recognition. The complex models and algorithms help to exploit the enormous parameter space in a highly efficient way. The objective of the course is to bridge the knowledge gap of photonics and artificial intelligence communities which could bring breakthrough innovations in engineering and technology.

Department of Computer Science and Engineering since its establishment in 1982, progressed steadfastly to its present status of being reckoned as a leader in Computer Science and Engineering education. The department currently has seven Computer Laboratories which are equipped with high end computers. Besides this, the department is equipped with high end servers and related networking equipment to provide the internet connectivity to campus. Department is actively involved in conducting short term training programmes in the upcoming areas such as Machine Learning, Cyber Security, Cloud Computing etc. The Department also offers ME CSE (Regular and Modular modes), ME CSE (specialization in IOT) as well as Ph.D. programme. As this FDP is multidisciplinary in nature, the department is organising it in collaboration with the Applied Science Department. Applied Science Department has well equipped laboratories of Applied Physics, Laser & Fiber Optics, Optical Fiber Communication and Nanoscience & Nanotechnology.

National Institute of Technical Teachers Training and Research, Chandigarh, an ISO 9001-2015 certified institute, is one of the four national institutes established by the Government of India in 1967 for the growth and development of technical education in the country. It is now reckoned as a resource institute for the technical education system providing services to its clientele covering faculty/staff of technical institutions, officials of directorates/boards of technical education, central and state govt. departments, industry, students from technical institutes and trainees from overseas. The institute undertakes the following spectrum of activities: Education and Training Programmes, Curriculum Development, Instructional Material Development, Research and Development, Extension Services, Consultancy in Technical Education and Technology areas. The institute offers ME/PhD Programmes in various disciplines.

