



Faculty Development Programme (FDP)
on
Silicon Photonics: Future of Integrated Circuits
December 20th – 24th, 2021

Organized by
Department of Electronics & Communication Engineering
Visvesvaraya National Institute of Technology, Nagpur
Nagpur - 440022

URL: <https://vnit.ac.in/>

About VNIT Nagpur

Visvesvaraya National Institute of Technology (VNIT), formerly **Visvesvaraya Regional College of Engineering, Nagpur (VRCE)**, is a public engineering and research institution in Nagpur, Maharashtra, in central India. It was established in June 1960 by the Government of India and later named in honor of engineer, planner and statesman Mokshagundam Visvesvaraya.

VNIT Nagpur is centrally funded and belongs to the National Institutes of Technology (NIT) system. In 2007, the institute was conferred the status of Institute of National Importance by an Act of Parliament of India. The Institute awards Bachelor's, Master's and Doctoral degrees in engineering, technology and architecture, for which the entry is through the Joint Entrance Examination – Mains and Graduate Aptitude Test in Engineering.

VNIT Nagpur has been ranked 27th among engineering colleges in India by the National Institutional Ranking Framework (NIRF) in 2020.

About Department

The Department of Electronics and Computer Science was created in 1994 from the Department of Electrical Engineering. Later, the **Department of Electronics and Communication Engineering** was created in May 2014. It offers under-graduate program (B.Tech.) in Electronics and Communication Engineering and a post-graduate program (M.Tech.) in Communication Systems Engineering.

There is active research in the areas of Communication Engineering, Image Processing, Embedded System Design, RF and Antenna Design. The department has collaborations with several industries, academic institutes, and R&D organizations in the country.

The B.Tech. (ECE) program offered by the Department is accredited by the National Board of Accreditation (NBA) for five years w.e.f. July 1, 2015. The M.Tech. (CMN) program is accredited by the NBA up to 30 June 2025.

Course and Objective of FDP

The FDP is aimed to expose participants to current practices in the field of silicon photonics. It is targeted at researchers and engineers with an aim to gain fundamental understanding of silicon photonic integrated circuits. The course will be focused on the process to translate a photonic circuit idea into a working chip by explaining the process of coupling light, guiding light, modulating light and detecting light in silicon photonics chips.

Course Content

- Fundamentals of Silicon Photonics
- Guided Light in Silicon Photonics Devices
- Optical Modulation in Silicon Photonics
- Silicon Based Light Sources
- Photodetectors in Silicon Photonics
- Convergence between Photonic and CMOS
- Lab/Hands on Training on Photonic Circuits Simulation Softwares

Coordinator

Dr. Anamika Singh

Assistant Professor

Department of Electronics & Comm Engg.

VNIT Nagpur

Email: anamikasingh@ece.vnit.ac.in

Mobile: +91-7506188386

Chairperson

Dr. Avinash G. Keskar

Head of the Department

Department of Electronics & Comm Engg.

VNIT Nagpur

Patron

Dr. Pramod M. Padole

Director, VNIT Nagpur

Important Dates

Last date for Registration : Dec 18, 2021
Date of intimation (by email) : Dec 19, 2021
FDP Duration : Dec 20-24, 2021

Who can Apply

The faculty members, research scholars, PG scholars, participants from Engineering Institutions, and Science Colleges, Government, participants from Industry etc. and staff of host institutions. Participants are supposed to submit a brief statement of motivation to participate in the FDP in order to nurture a well-balanced and diverse group of participants.

“Certificate of Participation” will be provided to all registered participants.

Resource Persons

Faculties from IITs, NIT and IIITs

How to Apply

Participants can register for the FDP in the AICTE ATAL portal given below.

Process for Registration:

Link: - <https://www.aicte-india.org/atal>

After clicking on this link, please login yourself with your username and password.

After successful login...Please click on Workshops

After clicking on Workshop link, On the dashboard:

-Select state as Maharashtra

-Select Month as December

-Select Thrust area as Photonics

-After doing this you can apply for the Faculty Development Program on “Silicon Photonics: Future of Integrated Circuits” Organised by Visvesvaraya National Institute of Technology, Nagpur - Just click on + button to apply for workshops.