

BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Yelahanka, BENGALURU - 560 064

Join for
the course



Department of Electronics & Communication Engineering

Open Course on "Optoelectronics and Biosensor Devices: Simulation and Modelling" June 12th - 16th 2023.

Objectives of the Open Course:

The main objective of the course is to learn the Basic of Optoelectronic Devices, and Recent FET Devices such as TFET and FinFET which can be used as Biosensor Devices and The Simulation and Modelling of these devices.

Target Participants: ECE/ETE/CSE/ISE

Content: Optoelectronic Devices, Biosensor Devices, Simulation of Solar cells and TFET Devices.

Note: *Credit card or Debit card* is required for account creation. [account will be created for free].

Venue: VLSI Lab

Contact Details:

Dr. Suneet Kumar Agnihotri (9981393511)
Email id: suneet@bmsit.in

Registration fee details: Fee: 400

1. Login into: <https://bmsitm.gnums.in>
2. Go to Menu Fee-> other Fee
3. Select the Fee Head
as Open Course fee and pay Rs. 400/-

Register using
GNUMS. Mention
course Name

Department of Electronics and Communication Engineering

Course Schedule: "Optoelectronic & Biosensor Devices: Simulation and Modelling"

12th June 2023 to 16th June 2023

Sl No.	Date	Topics covered	Break	Topics covered	Break	Topics covered	Assessment/feedback
		8:30 to 10:30 am	10:30 to 10:50 am	10:50 to 12:50 pm	12:50 to 1:50 pm	2:00 to 4:00 pm	4:00 pm to 4:30 pm
1	12.06.2023	Overview of the Course	TEA BREAK	Theory of Optoelectronic Devices	LUNCH BREAK	Theory of Optoelectronic Devices	Overall Feedback & Assessment
2	13.06.2023	Thin Film Solar cells		Nanostructured Solar cells		Hands-On session	Overall Feedback & Assessment
3	14.06.2023	Introduction to MOSFETs		Introduction to TFET		Hands on Session	Overall Feedback & Assessment
4	15.06.2023	Introduction to TFET Biosensors		Introduction to TFET Biosensors		Hands on Session	Overall Feedback & Assessment
5	16.06.2023	Quiz		Quiz		Quiz	Overall Feedback & Assessment

Instructions to the Participants:

1. Prerequisite: Students should have basic knowledge of optoelectronic Devices and MOSFETs.
2. For Hands-on sessions the student needs to carry the following to the lab:
 - a. Laptop with the following configuration (i5, 8GB Ram, SSD 128 GB)
 - b. Software installation in the laptop: (Window 11/ Linux, MATLAB, Ansys Lumerical FDTD Software, TCAD (Synopsis/Silvaco) Software ...