



**VIT**<sup>®</sup>

**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

**School of Electronics Engineering – VIT, Chennai**

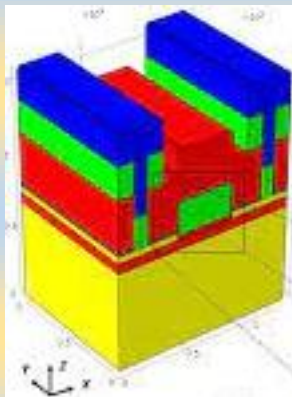
***Value Added Course on***

***“Physics and Simulation of Semiconductor based Junction Devices”***

**VAC 2022**

**April 2022**

**Venue: Online - Microsoft Team/ Zoom**



### **About the course**

*Rising design complexity and higher budget involved in the fabrication of semiconductor devices for various applications necessitates use of EDA tools for the design and optimization of semiconductor processes. This course aims to give fundamental knowledge required for modeling and simulation of semiconductor devices. Participants would get hands-on training on different EDA tools which help to emulate real time fabrication of semiconductor devices ranging from p-n junction to advanced MOSFETs. At the end of this course participants could able to design different semiconductor device structure and analyze its characteristics.*

## **Topics to be covered**

Introduction to junction based devices

Modeling of low power transistor

Design of pn-junction diode, MOS based devices using TCAD

Simulation of Schottky barrier FET using TCAD

Design and simulation of FinFET based devices for low power application

Design and simulation of TFET based devices for sensing application

***On completion of the course successfully the participants will receive course completion certificate.***

## **Who shall attend?**

**Students of B.Tech./M.Tech./Research Scholars and Faculties**

**Prerequisite:** Knowledge on fundamental of Semiconductors

## **Course Instructors:**

**Dr. B. Prashanth Kumar , VIT Chennai**

**Dr. Sathya Sree, VIT Chennai**

**Dr. E.Papanasam, VIT Chennai**

**Dr. Lucky Agarwal, VIT Chennai**

## **For Queries Contact:**

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**Date of Registration: On or before 30<sup>th</sup> March, 2022**