A short-term Course
on
Semiconductor Fabrication & Technology

15th July- 20th July , 2024
3 days online - 2 days offline (optional)

under the aegis of

Electronics & ICT Academy IIT Roorkee
Supported by
Ministry of Electronics & Information Technology
Government of India

Experts from Academia/Industry

Principal Investigator

Prof. Sanjeev Manhas, E&ICT Academy , IIT Roorkeee

📍 Online/offline Mode: ECE Department IIT Roorkee

Why this course ?

The India Semiconductor Mission (ISM) is dedicated to making India a leader in the semiconductor industry, and expertise in this area will be crucial in shaping India's semiconductor landscape for economic growth and technological advancement. This course aims to provide a fundamental understanding of current technologies and advanced concepts in semiconductors along with exposure to hands-on fabrication. It equips individuals with essential knowledge & skills to contribute to India's goal of becoming a global hub for semiconductor design and manufacturing.

Objectives of the course

The broad objectives of the course are:
- To provide basic concepts of Integrated Circuit(IC) fabrication.
- To introduce advanced state-of-the-art logic, memory, and packaging technologies
- To introduce semiconductor manufacturing and yield engineering
- To provide hands-on user training on semiconductor fabrication and characterization tools

Course Features

- 40 Hours of Lectures & hands-on
- Lectures from Expert Speakers, Hands-on from industry/Academia experts
- Expert talks from the industry/Academia
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

Focus Areas

VLSI & Semiconductor Technology
- Semiconductor Processing Fundamentals
- Unit Processes & Process Integration
- Advanced Semiconductor Logic, Memory and Packaging Technologies

Semiconductor Equipment and Wafer Fab Manufacturing
- Equipment Hardware & System Technologies
- Wafer Fab

Fab EquipmentHands-on Training
A basic demo of-Lithography, Deposition, Etching, and Cleaning

Prerequisites

- A Participant can be a Faculty, a Working professional, a Research Scholar or a Student (passed & appearing UG/PG)

Registration Link

https://forms.gle/ATM4La7ycFPGjW1U7

Registration Fee

Fees: ₹ 2500/- Faculty/Research Scholar/Students
₹ 5,000/- Industry Person/Others
Note: Refund will be done in case of course cancellation only, within 20 working days

How to make payment

https://eict.iitr.ac.in/instruction-for-payment/
Conference Code: EICTIITR-STC-SFT-24

Course Coordinators/Instructors

- Prof. Sanjeev Manhas, ECE Department, IIT Roorkee
- Prof. Arnab Datta, IIT Roorkee
- Prof. Tanmoy Pramanik, IIT Roorkee
- Prof. Brijesh Kumar, IIT Roorkee
- Prof. Pradeep Dixit, IIT Bombay

Reach Us:

Ph. No. +91-1332286457, M.No. : 8112766397, Email: eict@iitr.ac.in

Introduction

Semiconductor Technology and Fabrication

- Driven by continuous and rapid advancements in manufacturing technology.
- Driven by the growth of modern electronics.
- Need for engineers, faculty, and students to stay updated with state-of-the-art manufacturing and future trends.
- Course provides an understanding of current technologies and advanced concepts in semiconductor manufacturing.
- Offers hands-on experience with equipment and processes used in IC fabrication worldwide.

Course Content

VLSI & Semiconductor Technology

Semiconductor Processing Fundamentals
Unit Processes & Process Integration
Advanced Semiconductor Logic, Memory, and Packaging Technologies

Semiconductor Equipment and Wafer Fab Manufacturing

Equipment Hardware & System Technologies
Wafer Fab and Foundry Yield Engineering
Fab Equipment Hands-on Training

Accomodation

For participants who want to attend this program in offline mode for the last 2 days i.e. 19-20th July 2024, accommodation on a sharing basis will be provided based on the availability of guest rooms on a paid basis.
Accommodation charge:
(INR 672/day/person)
Contact – eict@iitr.ac.in (8112766397)
for booking

Who may benifit?

- Academic Faculty and Students(UG/PG)
- Government Officials
- Working Professionals in SemiconductorIndustry and Startups
- Research Scientists and Technical Staff ·

Important Informations

Last date for receipt of the registration form:
12th of July 2024

Course dates: 15th July to 20th July, 2024

The offline participation is optional, those who want to attend the last two days online can join via the online platform