



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Workshop on semiconductor materials and devices

Department of Material Science & Metallurgical Engineering &
Department of Electrical Engineering

About the Workshop:

India is envisioned to become a global hub for Semiconductor Systems and Manufacturing. While steps are being taken toward the establishment of industries, it is essential to develop expertise and skills in the field of semiconductors. For example, specialized programs on Semiconductor Materials and Devices, IC manufacturing and design, etc., are of paramount importance to meet the technological growth and demands both nationally and globally. In this regard, we would like to nurture and motivate enthusiastic bright candidates in this emerging field through a one-day workshop. Herein, we will discuss different topics including the computational methodology of estimating point defect formation energy in solid semiconductor materials using density functional theory, interface defects in semiconductor heterostructures, principles underlying a TCAD tool, printed electronics and thin film technology in semiconductor devices.

Scan to Register:



Mode: Online & Offline

Registration Fee:

IITH Students: Rs.100/-

Non-IITH Students: Rs.236/-

Date : 30th September 2023

Time : 8:30 AM – 05:00 PM

Venue (Offline) : LH-3, MSME, IITH

Program Schedule:

Sl. No.	Title of the talk	Speaker	Time
1	Computational Modeling of Point Defects in Semiconductors Using Density Functional Theory	Dr. Anuj Goyal	8:30 - 10:00 hrs
2	Interface Defects in semiconductor heterostructures: origin and characterization	Prof. Ranjith Ramadurai	10:00 - 11:30 hrs
Tea Break- 11:30 - 11:40 hrs			
3	Introduction to physics of semiconductor devices: A Modelling and Simulation Perspective	Dr. Oves Badami	11:40 - 13:10 hrs
Lunch Break- 13:10 - 14:00 hrs			
4	Printed electronics based on oxides and organic semiconductors.	Dr. Suresh Kumar Garlapati	14:10 - 15:30 hrs
5	Introduction to Thin Film technology in Semiconductor Device processing	Dr. Chandrasekhar Murapaka	15:30 - 17:00 hrs
Conclusion			

ABOUT IITH:



Indian Institute of Technology Hyderabad (IITH) is a premier institute of science and technology established in 2008. IITH has been consistently ranked in the top 10 institutes in India for Engineering according to NIRF making it one of the most coveted schools for science and technology in the country. The very foundation of IIT Hyderabad is based on research and innovation. The vibrant research culture is evident from the number of patents and publications that IITH produces consistently every year. IITH encourages and supports innovation and entrepreneurship at every stage. There are various innovation centers and incubators that promote entrepreneurship and help mentor young innovators. IITH has been very successful in building tie-ups with leading academic institutions around the globe. IITH creates a unique holistic ecosystem for education that offers interactive learning, a very flexible academic structure, cutting-edge research, strong industry collaboration, and entrepreneurship. This is an environment which enables students and faculty to translate their dreams into realities.

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