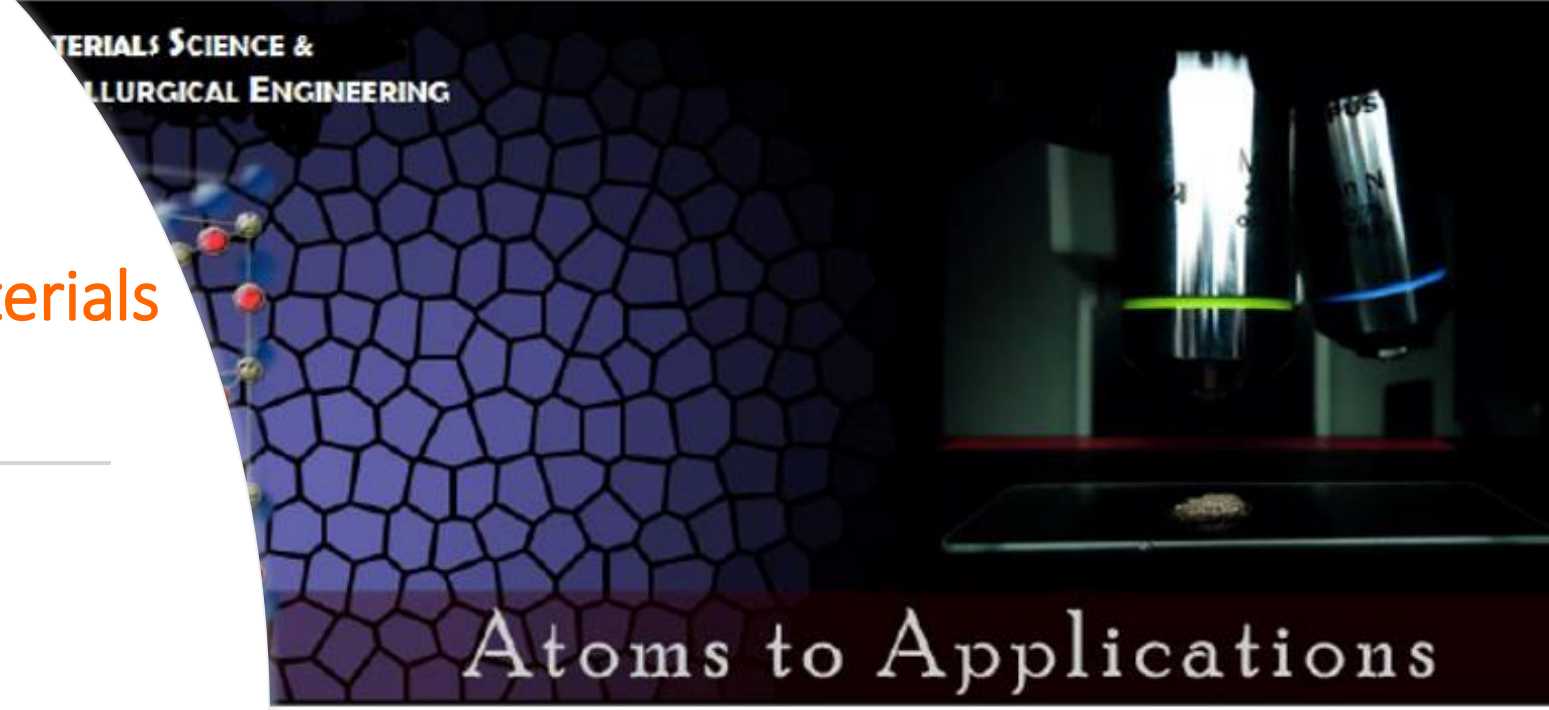
M. Tech in Semiconductor Materials and Devices (A.Y. 2022-23)

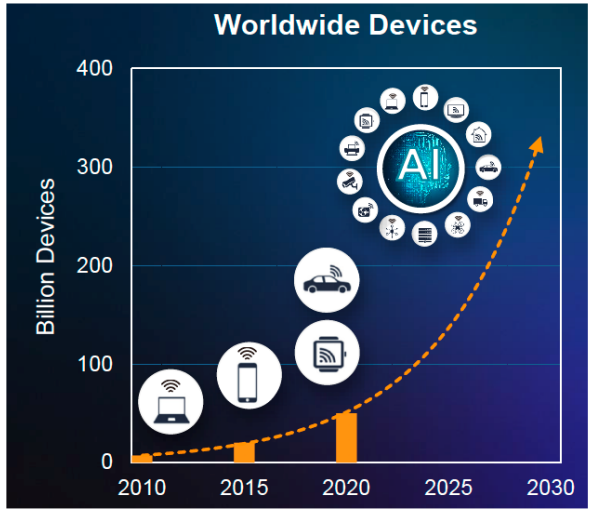
Materials Science &
Metallurgical Engineering

https://msme.iith.ac.in/



About The Program

- The program aims to nurture expertise in Semiconductor Materials and Devices, one of essential resources to make India as the global hub for Electronic Systems and Manufacturing. The program is in line with the recent expansion of the vision of Aatmanirbhar Bharat in setting up of India Semiconductor Mission



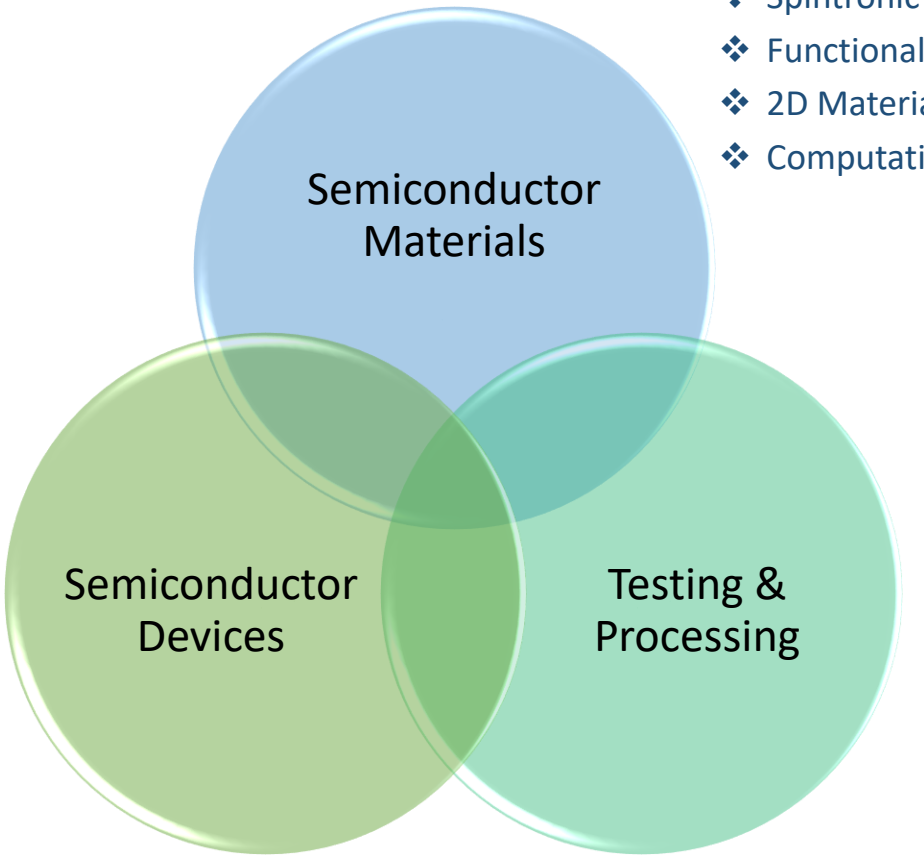
- By the year 2030, the global need of AI+IoT devices are predicted to be >350 billion (source: 2020 IEEE ISSCC, Cisco VNI Global IP Traffic Forecast 2017-2022).

- The specialized degree programs such as Semiconductor Materials and Devices is of paramount importance to meet the technological growth and demands both nationally and globally.

- In the recent initiatives of the Indian government Rs.76000 crore (>10 billion USD) has been approved for development of semiconductors and manufacturing ecosystem in the country (source: investindia.gov.in). The current academic program is meant for enthusiastic bright candidates who are willing to take a career path on semiconductor technology.

Courses

- Fundamentals of Semiconductor Materials
- Spintronic Materials and Devices
- Functional Polymers & composites
- 2D Materials: synthesis, characterization and applications
- Computational Materials Science

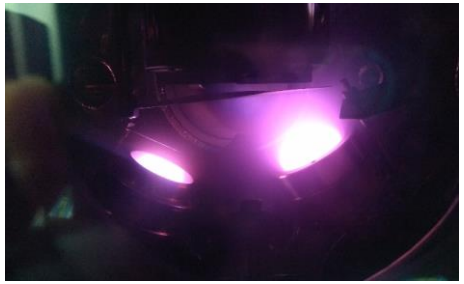


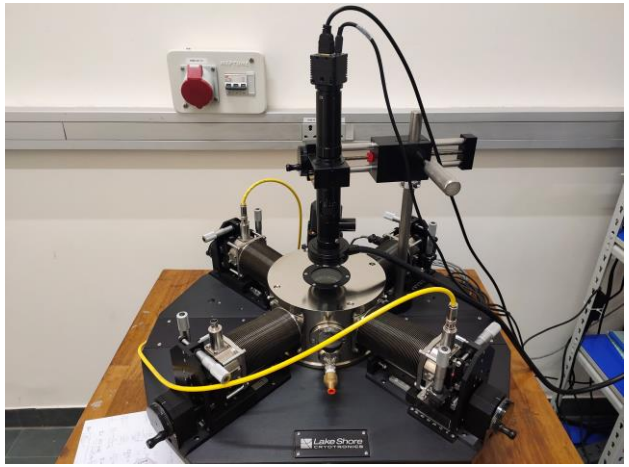
- Semiconductor Devices
- Electronic Materials and Devices
- Smart Materials and Transducers
- Flexible Electronics
- Device Simulations
- Thin Film Technology

- Semiconductor Extraction & Purification
- Micro and Nanofabrication
- Solidification Processing
- Electrometallurgy
- Semiconductor Materials Characterization lab
- Semiconductor Devices Characterization lab
- Materials Characterization
- Diffusion analysis in Materials Engineering

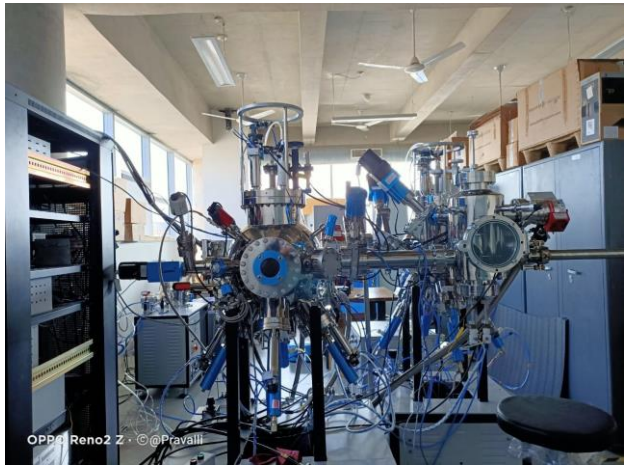
- Industry lectures on semiconductor devices, electronic packaging and e-waste management

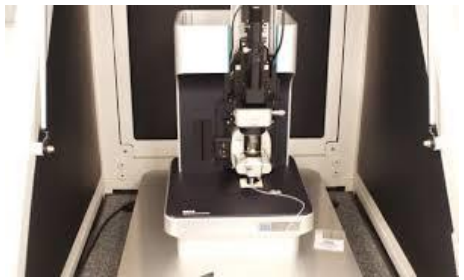
Research Facilities







Eligibility & Admission (A.Y. 2022-23)

- **Self-Sponsored:** Candidates having B.E./B.Tech. or equivalent in Metallurgy /Ceramics /Mechanical /Production /Industrial/Electrical/Electronics/Instrumentation Engineering/Polymer or related discipline or M.Sc. in Materials Science/Nanotechnology/Physics/Chemistry or related discipline with minimum first class. The selection will be based on written test and/or interview. GATE Score is not mandatory.

- Applications shall be submitted online. Please visit **www.iith.ac.in** for more details.

- **Contact:** Program Coordinator (M.Tech. in Semiconductor Materials and Devices)

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