



Electronics & ICT Academy IIT Roorkee



An Initiative of
**Ministry of Electronics
& Information
Technology (MeitY)**
Government of India

A Joint Faculty Development Programme on **Advanced Semiconductor Packaging Technology**

In association with



June 30 – July 09, 2025

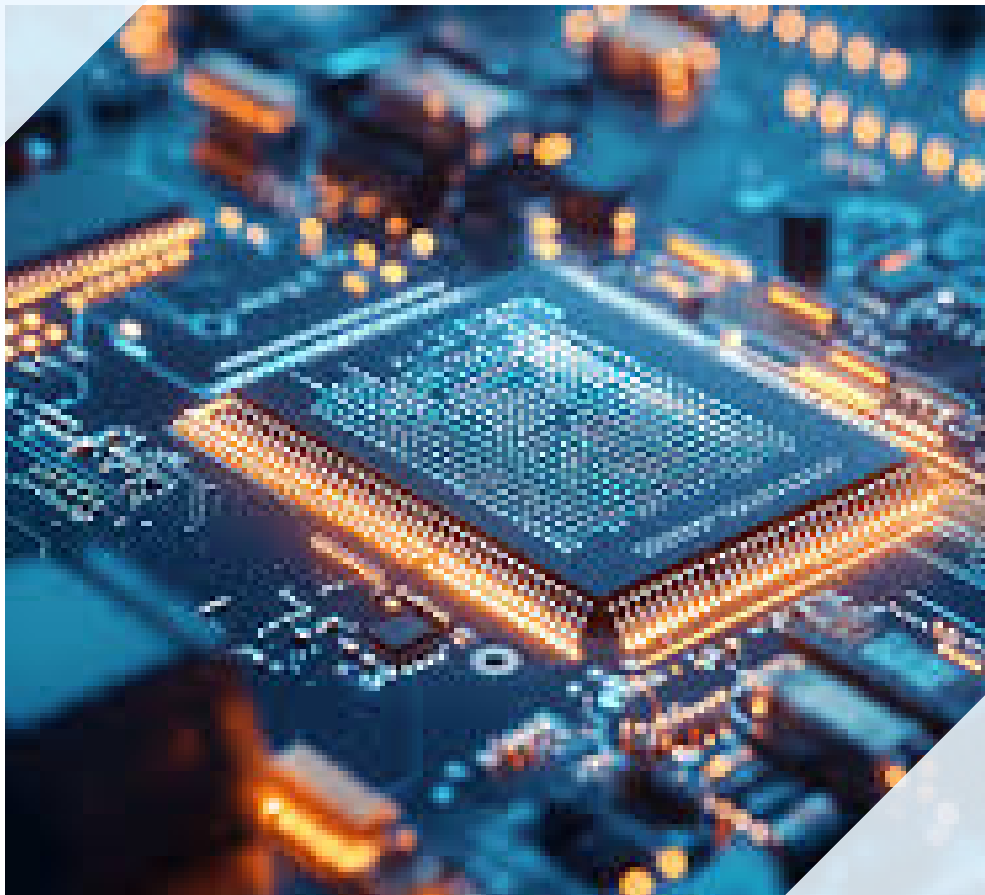
Timings:– 4:00 PM – 8:00 PM (Every day)

Register Before: June 27, 2025

Mode of Delivery is Online

Course Outcomes

- Ability to analyze and simulate packaging-related thermal and electrical issues
- Skill to apply FEM tools for evaluating thermal dissipation
- Understand interconnection technologies and manufacturing steps
- Develop expertise in reliability testing and identifying failure modes
- Solve complex packaging problems using software and lab techniques
- Gain insights into cutting-edge packaging advancements
- Translate theoretical knowledge into practical engineering solutions



About E&ICT Academy

Electronics and ICT Academy is an initiative of Ministry of Electronics & Information Technology (MeitY), Govt. of India for conducting various Faculty/ Research Scholar Development Programme. Academy has planned short-term training programs on fundamental and advanced topics in IT, Electronics & Communication, Product Design, and Manufacturing with hands-on training and project work using the latest software tools and systems. In addition, the Academy will conduct specialized/customized training programs and research promotion workshops for corporate sector & educational institutions.

Prerequisites

No experience is required, but fundamental knowledge of any programming language would be helpful.

Experts from Academia/Industry

Who Should Register?

Any Interested Faculty/PhD-Scholars
UG/PG/ & Industry Persons can register

Registration Fee

Fees: ₹ 500/- Faculty/Research Scholar/ Students
₹ 1000/- Industry/Others

Note: Refund will be done in case of course cancellation only, with in 20 working days

How to make Payment

Please make the payment first using the below link
upload the payment receipt when filling out the
Google registration form

<https://eict.iitr.ac.in/instruction-for-payment/>

Course Code: EICTIITR-JFDP-NKN-03

Registration Link

<https://forms.gle/vRG5zYJkiKd9YTPS8>



Scan QR for
registration

Register before:
June 27, 2025

Click on icon to follow us on:



Objectives of the course

- Provide in-depth knowledge of semiconductor packaging technologies.
- Familiarize participants with electrical, thermal, and reliability design of IC packages.
- Demonstrate TCAD, FEM, and ANSYS tools for simulation and modeling.
- Explore challenges in underfill flow, heat dissipation, and fatigue failures.
- Develop practical skills through hands-on lab problems and simulations.
- Understand advanced topics like 3D, fan-out, and co-packaged optics.
- Bridge the gap between academic understanding and industry-level applications.

Focus Areas

- Semiconductor packaging materials and technologies
- Electrical and thermal design considerations
- TCAD and ANSYS-based simulation methods
- High-density substrates and interconnections
- Reliability analysis and failure mechanisms
- Advanced packaging techniques (3D, co-packaged optics)
- Hands-on experiments and real-time problem solving

Course Features

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

Resource Persons

- **Prof. Sanjeev Manhas, IIT Roorkee**
- **Dr. Pradeep Dixit, IIT Bombay**

Principal Coordinator

- **Prof. Sanjeev Manhas, Head, ECE, Dept., IIT Roorkee**

Joint Principal Coordinator

- **Prof. Sanjeev Manhas, Head, ECE Dept., IIT Roorkee**
- **Dr Pushpa Raikwal, IIITDM**
- **Dr. Deepak Bharti, MNIT, Jaipur**
- **Dr. Bambam Kumar, NIT Patna**
- **Dr. B V Phani, IIT Kanpur**

Reach Us:



M.No.: 8112766397



Landline No.: +91-1332286457



Email: eict@iitr.ac.in