

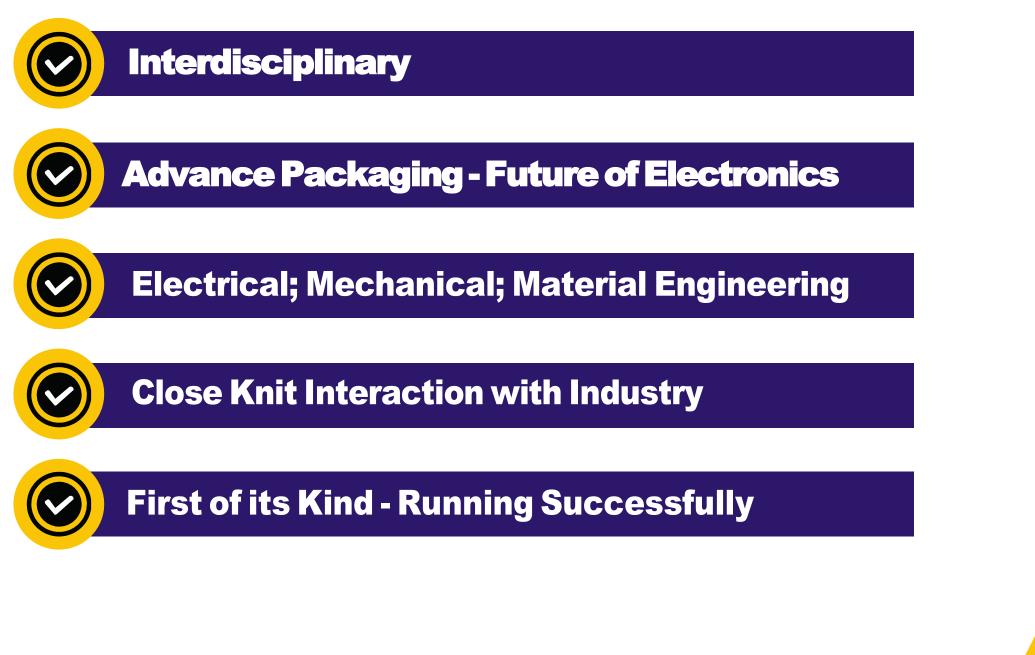
## INTEGRATED CIRCUITS AND MICROSYSTEMS PACKAGING

Interdisciplinary MTech Program





## About the program





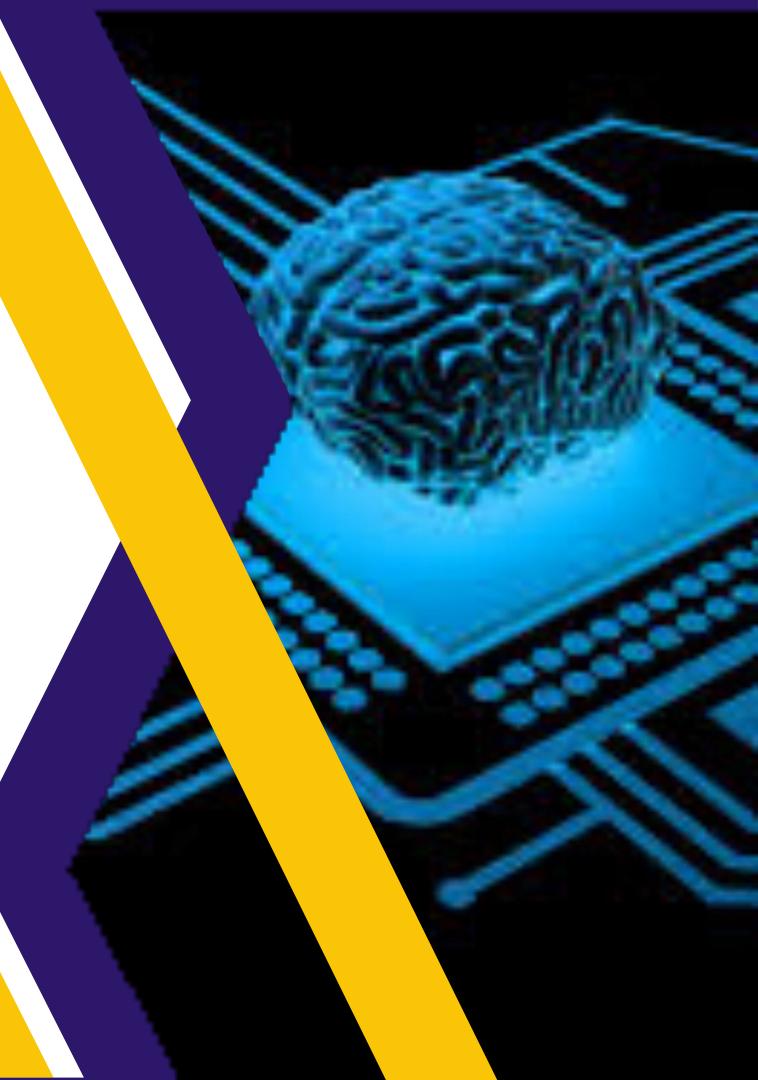
### Introduction

Ability to incorporate more functionality with the same area in an Integrated Circuit (IC) is transcending beyond transistor scaling to innovations in packaging. Heterogenous Intergration is the order of the next decade.

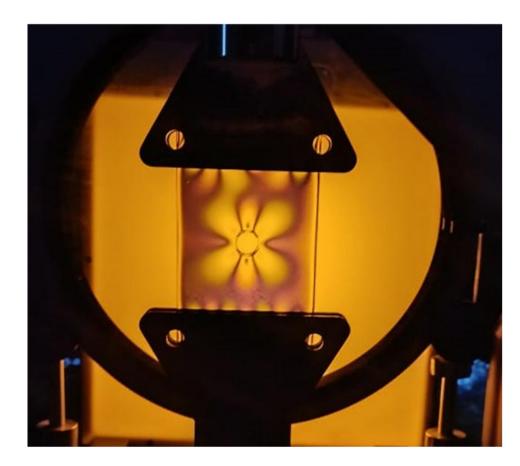
Catch the wave is the success mantra. The next era of scaling through packaging needs an engineer with interdisciplinary knowledge. This ICMP program is designed to mentor enthusiastic students in the nuances of design and manufacturing of present and futuristic ICs

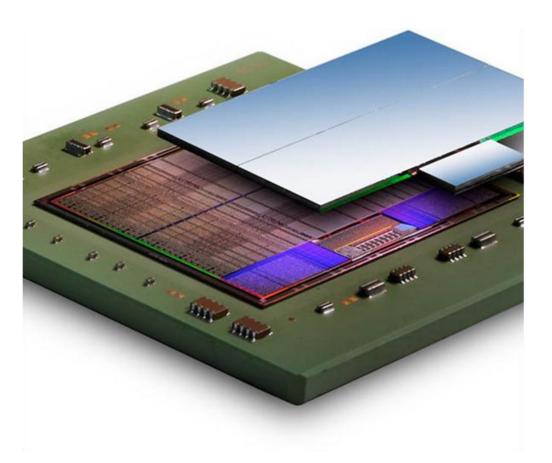
Equal emphasis is given to Electrical, Mechanical and Material aspects of ICs and their packaging

Interdisciplinary is the way forward...



### **Focus Areas**





#### **MECHANICAL**

- Thermal Management
- Fracture & Fatigue Analysis
- Predicting Reliability

#### ELECTRICAL

- Heterogeneous Integration
- Signal & Power Integrity
- 3D IC, MEMS, TSV
- Optical Interconnects



#### MATERIALS

- Semiconductor Fabrication
- Thin Film Synthesis
- Materials for packaging

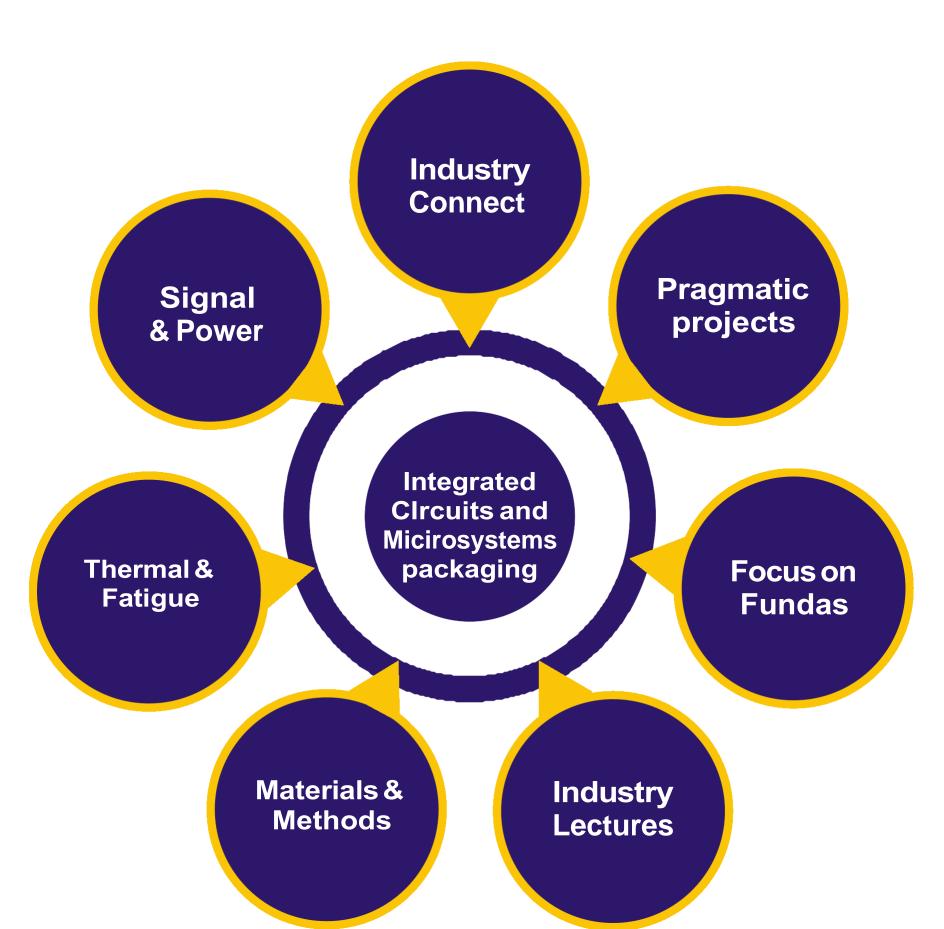
## Who Can Apply

Gate: EE, EC, ME, IN, XE-C, PHY

Engg Branches: Electrical & allied Mechanical & allied, Materials & allied, Physics & allied

# We Encourage all branches

RELEVANT TO IC MANUFACTURING AND PACKAGING



## Industry taught courses RENESAS

- Embedded Systems and microcontrollers
- Embedded Systems and microcontrollers lab



- Fundamentals of Semiconductor Package Manufacturing and Test
- Fundamentals of IC Packaging Assembly and Manufacturing





## **Contact Us**

For any queries:





# THANK YOU

