

Electronics & ICT Academy

IIT Roorkee

FACULTY DEVELOPMENT PROGRAM

on

"MEMS Devices & Challenges "



Feb. 04- Feb. 08, 2019

Experts from Academia/Industry

Guest Lecture from Dr. Sripadaraja K.
IIT Roorkee Intellisense Software
Pvt Ltd

Supported by

Ministry of Electronics & Information
Technology
Government of India

Venue



Greater Noida Extension Centre
Indian Institute of Technology
Knowledge Park II, Greater Noida-
201310

Why MEMS?

MEMS Sensors have gained a lot of interest in the last decade in India. The sensors in MEMS gather information from the environment through measuring mechanical, thermal, biological, chemical, optical, and magnetic phenomena. The electronics then process the information derived from the sensors and through some decision making capability direct the actuators to respond by moving, positioning, regulating, pumping, and filtering, thereby controlling the environment for some desired outcome or purpose. The advantages of semiconductor IC manufacturing such as low-cost mass production, reliability are also integral to MEMS devices. MEMS technology finds applications in various domain like Automotive, Consumer, Industrial, Military, Biotechnology.

Objective of the Course

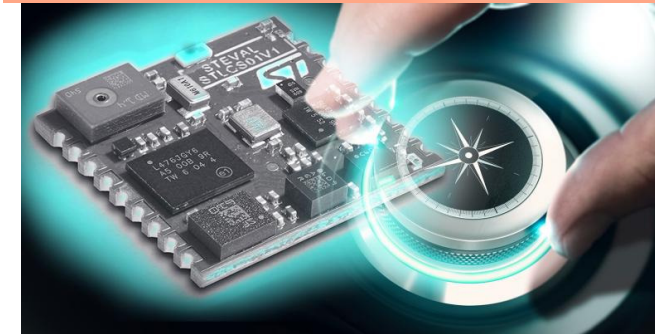
- Fundamentals and Applications of MEMS.
- Design and Simulation of MEMS inertial devices.
- Challenges and Solutions in MEMS Fabrication.

Program Features

- The program is split into lectures and labs/hands-on sessions.
- Hands-on experience on basic and advanced-level topics.
- Interaction & learning with experts from academia & industry.
- Certificates to participants by E&ICT Academy IIT Roorkee.

Focus Areas

- Fundamentals of MEMS devices and its application.
- Understanding the architecture of IntelliSuite software.
- Understanding the working of MEMS devices.
- MEMS Gyroscope.
- MEMS Accelerometer.
- MEMS Bolometer.
- Microfluidics examples.
- Design Challenges.
- FEM Simulation and analytical comparison.
- System Level Integration.
- Fabrication Simulation and challenges.
- Industry challenges in the areas of MEMS devices with examples.



Benefits and Outcomes of the Course

- The program would help the participants in acquiring knowledge on design thinking on MEMS Sensors and Actuator.
- Participants would also acquire the skills needed to efficiently utilize IntelliSuite Software through MEMS process development, Design Rule Checks, FEM Simulations, benchmarking and knowledge on various design parameters.

Coordinator

- Dr. Sanjeev Manhas P.I. E&ICT Academy
IIT Roorkee

Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities, and industry personnel working in the concerned/allied discipline.

Registration Fee

Faculty members: ₹ 1000/-

Research scholars: ₹ 1000/-

Persons from Industry: ₹ 1500/-

Payment Details

Offline: DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee
"OR"

Online: (<https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=365641>)

Read the instruction for payment before filling the online registration form.

How to Apply

Step 1: Participants may fill the registration form available on the link "Apply Here" for the relevant course on eict.iitr.ac.in

Step 2: Make Payment

OR

Step 3: Send a duly filled-in registration form along with Demand Draft to Academy address.

Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

Important Dates

**Last Date For Online
Registration :
Jan 28, 2019**

EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

Faculty Development Program

on

"MEMS Devices & Challenges"



REGISTRATION FORM

Applicant Name _____

Gender: _____

Category (GEN/OBC/SC/ST): _____

Designation: _____

Name and Address of the
Organization/Institute: _____

City/Town: _____

Email: _____

Phone Number: _____

Do you need Accommodation?
(Yes/No): _____

DD Number: _____

Date: _____

Issuing Bank: _____

Payable at: _____

Signature of the Applicant

Contact Us

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