Who should attend?

The program is open to faculty, research scholars and students from all the colleges and universities. Industry personnel working in the concerned/allied discipline may also apply.

Registration Fees

Designation	Amount
Faculties and students from institutes and colleges	**Rs 2000/ person**
Industry and research organizations	**Rs 10000/ person**

The Registration fee includes, Course fee includes course material, laboratory work book, lunch and tea during the course Applications in the prescribed format along with fees (in case of online payment please enclose the online transfer receipt) the deadline for registering is **15th December, 2016** The fees should be paid by a crossed demand draft drawn in favor of " The Registrar, IIT Indore", payable at Indore .For Online payment/ Bank Transfer.

Bank Name : State Bank of India
Branch : Khandwa Road, Indore
Account number : 31702151577
IFS Code : SBIN0011779

The Accommodation will be provided in hostels on chargeable basis based on the availability

Coordinators

Dr. I.A. Palani (palaniia@iiti.ac.in)
Dr. Vipul Singh (vipul@iiti.ac.in)

About Electronics & ICT academy

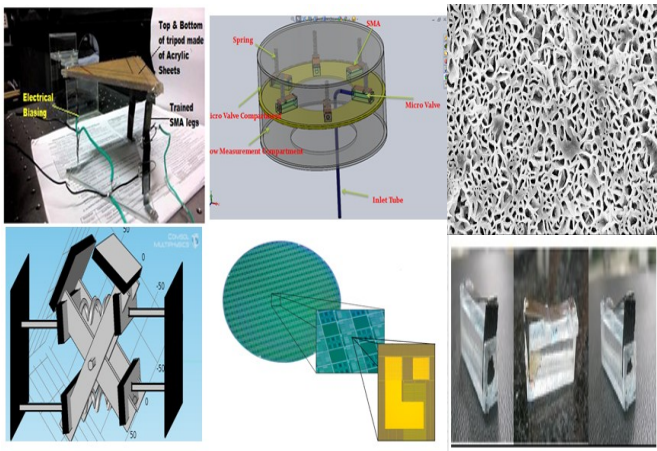
Department of Electronics and Information Technology, Government of India has instituted four Electronics and ICT Academies with one academy at PDPM IIITDM Jabalpur with the primary objective preparing manpower for two important missions - 'Digital India' and 'Make in India'. The Academy aims at the design and implementation of scalable training programmes in niche areas of electronics and ICT for the development of required knowledge base, skills and tools to unleash the talent of Indian population. The Academy at PDPM IIITDMJ will partner with IIITM Gwalior, MANIT Bhopal, and IIT Indore run high quality specialized courses for faculty, students and unemployed graduates. In addition, the Academy conducts customized training programmes and research promotion workshops for corporate sector and educational institutions. The Academy is envisioned to become a central hub of activities on training, consultancy work and entrepreneurship programmes.

About IIT Indore

Indian Institute of Technology, Indore (**IIT Indore** or **IITI**), located in Madhya Pradesh, is an institute of national importance established by the Government of India in 2009.A core competency of the IIT Indore is the research-driven academic programme, as research forms a core component of the undergraduate and postgraduate teaching. Presently, IIT Indore is functioning at Simrol Campus, Khandwa Road(Permanent Campus). campus is 30 kms from indore railway junction and 32 Kms from Devi Ahilya Bai Holkar International Airport, Indore

SHORT TERM COURSE ON MECHATRONICS, MEMS AND MICRO FABRICATION

19th –23rd December 2016



Organized by

ELECTRONICS & ICT ACADEMY,
(An initiative of Department of Electronics and Information Technology, Government of India)

INDIAN INSTITUTE OF TECHNOLOGY INDORE

Academic Pod CSE02,
Simorl Campus , Indore, MP

Course Objective

Micro electromechanical systems (MEMS) present a unique platform where both electrical and mechanical components are fabricated on a single wafer. Some of the fastest growing areas which utilize different MEMS sensors and actuators are entertainment industries, consumer electronics, medical, defence, space industries, etc. The electro mechanical device basically includes micro actuators, micro sensors, micro transducers, micro-switches etc, these micro device have occupied their own positions for different applications ranging from bio medical, aero space, defense, energy and day to day life. Mechatronics MEMS and micro fabrication are interlinked areas, focusing towards the development of micro devices for the benefit of mankind. Keeping the interest of researchers, faculties, and employees from different institutions, R&D labs and companies across the country, we have designed a unique program on Mechatronics, MEMS and micro-fabrication, which cover fundamentals of design, fabrication, and packaging of a complete MEMS device.

Resource Persons

Prof.Nilesh.J.Vasa
HOD, Engineering Design, IIT Madras

Dr.I.A.Palani ,	**IIT Indore**
Dr.Vipul Singh ,	**IIT Indore**
Dr.M.Anbarasu,	**IIT Indore**
Dr.Bhupesh K.Lad,	**IIT Indore**
Dr.Amod Umarikar,	**IIT Indore**
Dr.Ram Bilas Pachori,	**IIT Indore**
Dr.Abhishek Srivastava ,	**IIT Indore**

Experts form Industries & DAE units

Course Contents

- Sensors and Actuators
- Pneumatic system design
- Micro-robotics
- Design
- Bio-MEMS & Lab on chips
- Signal processing and analysis of MEMS device
- Opto-Mechatronics
- Nanoscale Memory
- Mechanical system modelling
- Micro fluidic-system vices
- Micro/Nano fabrication
- Bio/Chemical Sensors
- Soft material based opto-electronic sensors
- Device characterization techniques
- Reliability analysis of MEMS and Mechatronics device
- Nano-particle generation

Hands On experience

- PLC based pneumatic system design
- Opto– Mechatronics system design
- Control of Mechanical elements
- Laser based micro Fabrication
- Smart material based device development
- Thin film deposition techniques
- Sputtering
- PVD and PLD
- Four probe conductivity
- System automation in LabVIEW platform
- Data acquisition and processing
- Nano-scale Memory devices
- Optical characterization technique
- Reliability and Life cycle analysis of MEMS based device

Application Form

Name: …… …….

Affiliation: ……

Address of communication: ……

……...

……...

Mobile Number: ……

Email address: ……...

Area of Interest:

Category: **Faculty/Scientist**

Payment Details:

D.D No: ……

Date; ……

Amount in Rs: ……..

Drawn At: ……

Name and Address of the sponsoring Organisation:

……...

……

……

Signature with date :

Send the duly filled registration form hardcopy along with the scanned copy through
e-mail: iiticepmechatronics@gmail.com

Dr. I.A. Palani,
Associate Professor
Mechatronics and Instrumentation lab, Discipline of Mechanical Engineering
Room no 203, Academic Pod CSE-02
IIT Indore, Khandwa Road, Simrol
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