

## About Electronics & ICT Academy at PDPM IIITDM Jabalpur

The Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and ICT Academies with one academy at PDPM IIITDM Jabalpur. The primary objective of the Academy is to prepare manpower for two important missions - 'Digital India' and 'Make in India'. The Academy aims at 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. In addition to the faculty development programmes on fundamental and advanced topics, the Academy conducts customized training programmes for corporate sector and research promotion workshops in emerging areas. The Academy is envisioned to become a central hub of activities on training, research, consultancy work and entrepreneurship programmes.

## About PDPM IIITDM Jabalpur

PDPM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT enabled Design and Manufacturing. Since its inception, PDPM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution in India's mission of inclusive and sustainable growth. The Institute offers undergraduate, post graduate and PhD programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Under IIIT act, the Institute has been declared as an Institute of National Importance in January 2015. The Institute campus is being developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 kms from the main railway station and 5.5 kms from Dumna Airport, Jabalpur.

## Faculty Development Programme MEMS using IntelliSuite®

**Who can attend:** Programme is open to faculty from all colleges and universities preferably from the states of Madhya Pradesh, Chhattisgarh, and Maharashtra. Industry personnel working in the concerned/allied discipline may also apply. **Limited seats are available for research scholars.**

### How to apply :

**Online:** The participants may log on to the website [ict.iiitdmj.ac.in](http://ict.iiitdmj.ac.in) and fill up the application form selecting the name of the course.

You may also send scanned copy of your completed application form to [academyiiitdmj@gmail.com](mailto:academyiiitdmj@gmail.com). Application format may be downloaded from the website (Also given in this brochure). Print out of the filled in application form duly endorsed by the forwarding authority and a demand draft of applicable amount (as given below) in favour of 'Electronics and ICT Academy, IIITDMJ' payable at Jabalpur may be sent to the address given below. No Travelling Allowance will be paid by the Academy.

### Important Dates:

**Last Date of Online Registration: June 20, 2018**

**Spot Registration also available if seats are available.**

**Course Dates: June 25-30, 2018**

### Registration Fee :

Academic: Rs. 1000/- (Gen/OBC), Rs. 500/- (SC/ST)

Industry: Rs. 5000/-  
(Includes lunch + tea)

### Accommodation charges (if needed):

Rs. 1000/- (includes breakfast + dinner)

## Contact us

Electronics and ICT Academy  
PDPM Indian Institute of Information Technology,  
Design and Manufacturing, Jabalpur,  
Dumna Airport Road, Jabalpur 482005  
Email: [academyiiitdmj@gmail.com](mailto:academyiiitdmj@gmail.com)  
Website: [ict.iiitdmj.ac.in](http://ict.iiitdmj.ac.in)

## Faculty Development Programme

## MEMS using IntelliSuite®

June 25- 30, 2018

## Seamless Learning Opportunities

## Electronics and ICT Academy



An Initiative of  
Ministry of Electronics and Information  
Technology,  
Government of India



PDPM  
Indian Institute of Information  
Technology,  
Design and Manufacturing,  
Jabalpur,  
Dumna Airport Road,  
Jabalpur 482005



# MEMS using IntelliSuite® June 25-30, 2018

## Course objectives:

The course is designed to provide comprehensive knowledge and training starting from basics of Micro Electro Mechanical Systems (MEMS) to product-level MEMS design, simulation analysis and virtual fabrication using IntelliSuite®. IntelliSuite® is the industry-leading tool set for MEMS layout design, advanced process simulation, FEA, parametric analysis, system simulation, packaging analysis and more. Covering all aspects of the MEMS design cycle, IntelliSuite® provides a groundbreaking, end-to-end software solution for MEMS professionals.

Aim of the course is to enable the participants understand the fundamental, operational, design & developmental, material selection, microfabrication process steps including lithography, deposition and etching using virtual fabrication on IntelliSuite®, and finally, packaging aspects of MEMS devices.

The outcome is envisioned as enhancement in knowledge as well as involvement of more faculty members in dynamic and ever-evolving R&D field of MEMS devices and their applications. By successfully completing the course, the participants are expected to conceptualize, design, analyse, characterise, and virtually fabricate application-based MEMS devices completely on their own.

## Resource Person

1. Prof. Vijay Kumar Gupta  
Professor, PDPDM IIITDM Jabalpur
2. Dr. M. Zahid Ansari  
Assistant Professor, PDPDM IIITDM Jabalpur
3. Dr. Sripadaraja  
Intellisense India Pvt. Ltd.

## Course contents

The course aims to provide comprehensive exposure to MEMS devices and their microfabrication technologies through expert lectures from IIITDM and IntelliSense®, India and Hands-on training on IntelliSuite®. The topics include:

- **Introduction to MEMS**
  - MEMS Characteristics
  - MEMS Principles
  - MEMS devices
- **Materials for MEMS**
- **Processes for Microfabrication**
- **MEMS Packaging**
- **Overview of IntelliSuite®**
- **Studies and Hands-on Clean Room Simulation**
  - CMOS/MEMS Process Flow
  - Surface and Bulk Micromachining
  - Calibration Simulation
- **FEM and System Level Simulation of MEMS & Microfluidic Devices like**
  - MEMS Accelerometers
  - MEMS Gyroscopes
  - MEMS Pressure Sensors
  - Microflows, Mixing, Dielectrophoresis

## Course Coordinators

Dr. M. Zahid Ansari  
Email: [zahid@iiitdmj.ac.in](mailto:zahid@iiitdmj.ac.in)

Prof. Vijay Kumar Gupta  
Email: [vkgupta@iiitdmj.ac.in](mailto:vkgupta@iiitdmj.ac.in)

## Application Form

Name of the Course / Programme: **MEMS using IntelliSuite**

Name of the Applicant (first, last): .....

.....

Gender : M / F / T      Category: GEN/SC/ST/OBC

Designation: .....

Name and Address of the Organization/Institute/College:

.....

.....

City/town:..... Email: .....

Alternate email (if any): .....

Phone Number: .....

Mobile Number: .....

Do you need accommodation? (Yes/No):

**Note: Accommodation and meal facility will be available only from the evening of June 24 to the morning of July 01, 2018.**

DD Number: ..... Date: .....

Issuing Bank: ..... payable at: .....

Signature of the Applicant

I hereby agree to relieve Mr./ Ms./ Dr.....  
..... in case she/he is selected  
to attend the programme.

Signature and Seal of the Forwarding Authority

Name .....

Designation .....