# 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, and Communication Electronics 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 Finite Element Practice using ANSYS

Who can attend: Programme is open to faculty from all the colleges and universities preferably from the states of M.P., 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 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. 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: January 21, 2018 Spot Registration also available if seats are available. Course Dates: January 22- 26, 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 Website: ict.iiitdmj.ac.in

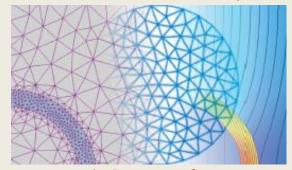
## **Faculty Development Programme**

# Finite Element Practice using ANSYS

January 22-26, 2018

# **Seamless Learning Opportunities**

# **Electronics and ICT Academy**



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



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

Building Human Resources For Digital India

E&ICT Academy

# Finite Element Practice using ANSYS January 22- 26, 2018

# **Course objectives:**

This course is designed to provide training on basics of Finite Element Method (FEM) and its implementation using ANSYS. ANSYS software is used in variety of engineering fields to model structures, fluids, electronics and system simulation. In this hands-on course, participants will learn how to perform engineering simulations using a powerful tool from ANSYS, Inc. This is a problem-based course where participants will learn by doing. Participants will practice using a common approach to problems involving different physics.

Aim of the course is to enable the participants understand how to apply the FEM in obtaining approximate solutions to the boundary value problems using ANSYS. The course is purely hands-on training on ANSYS software.

#### **Resource Person**

Mr. Saumil Mahesh Trivedi Application Engineer (ANSYS) ARK INFOSOLUTIONS PVT. LTD 18th Floor, Lotus Nilkamal Business Park, New Link Road, Opp. Fun Republic Cinema, Andheri (W), Mumbai-400053

# Course contents

**Introduction to FEM:** Introduction of FEM, ANSYS Mechanical Overview, Engineering Data Application-Adding Material Properties, Geometry Creation and Clean Up.

**Meshing:** Mesh Creation (Meshing Methods), Mesh Control (Local and Global Mesh Controls), Mesh Evaluation.

Static Structural Analysis: Basic Analysis Procedure (1D, 2D & 3D Analysis), Linear Structural Analysis (Named Selection), Beam Connections (Object Generator), Parameter Management (Bracket Analysis), Non-Linear Structural Analysis (Linear vs Nonlinear Analysis), Contact Offset Control (Contact Detection), Remote Boundary Conditions (Application of Remote Loads)

**Buckling, Modal & Thermal Analysis:** Eigenvalue Buckling (Buckling of Column), Modal Analysis (Plate with Hole), Pre-stressed Modal Analysis (Airplane Wing), Steady State Thermal Analysis (Radiating System).

Non-linear Analysis: Geometry Nonlinearity (Large Deflection), Contact Nonlinearity (Contact Stiffness Study and Symmetric vs Asymmetric), Material Nonlinearity (Metal Plasticity).

#### **Course Coordinators**

Prof. Vijay Kumar Gupta Email: <a href="mailto:vkgupta@iiitdmj.ac.in">vkgupta@iiitdmj.ac.in</a>

Prof. Aparajita Ojha Email: aojha@iiitdmj.ac.in

Website: ict.iiitdmj.ac.in

# **Application Form**

Name of the Course / Programme: Finite Element Practice

using ANSYS
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 January 21 to the morning of January 27, 2018.
DD Number: Date:
Issuing Bank: payable at:
G' (Cd. A. P. )
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