

## About Electronics & ICT Academy at IIITDMJ (MP)

Department of Electronics and Information Technology, Government of India has instituted four Electronics and ICT Academies with one academy at IIITDM Jabalpur with the primary objective of preparing 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. IIITM Gwalior, MANIT Bhopal, and IIT Indore are partners in organizing specialized courses for faculty, students and unemployed graduates under the Academy. In addition, the Academy will conduct customized training programmes for corporate sector and research promotion workshops for faculty teaching in colleges. The Academy is envisioned to become a central hub of activities on training, research, consultancy work and entrepreneurship programmes.

## About PDPM IIITDM Jabalpur

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 and Physics. Under IIIT act, the Institute has been declared 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 on Computational Methods and GUI Development for Scientists and Engineers

**Who can attend?** The programmes are open to faculty, research scholars and master level students from all the colleges and universities in the states of M.P., Chhattisgarh and Maharashtra. Industry personnel working in the concerned/allied discipline may also apply.

### 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 by providing all the necessary details.

**By Email** – Scanned copy of the filled in application form duly endorsed by the forwarding authority to be mailed at [academyiiitdmj@gmail.com](mailto:academyiiitdmj@gmail.com).

Please also send/post your duly-filled application form endorsed by the forwarding authority along with the DD of the registration fee (add accommodation charges, if needed) in favour of 'IIITDMJ-E&ICT ACADEMY' payable at Jabalpur. Registration fee can be paid to account (A/C Name: IIITDMJ-E&ICT ACADEMY; A/C No. 50302042708; Allahabad Bank, Mehgawan, IIITDM Branch, IFSC Code: ALLA0212433) by CASH/NET BANKING/NEFT. Please ensure that your complete application should reach to us by October 26, 2015. No Travelling Allowance will be paid by the Academy.

### Important Dates:

**Last Date of Online Registration: Oct. 23, 2015**

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

**Course Dates: Oct 28 – Nov 01, 2015**

### Registration Fee:

**Rs. 2000/- (Course material + lunch inclusive)**

**Accommodation charges (if needed)) Rs. 2000/- (including breakfast and dinner)**

### Course Coordinators

**Dr. Prashant Kumar Jain**  
Email: [pkjain@iiitdmj.ac.in](mailto:pkjain@iiitdmj.ac.in)

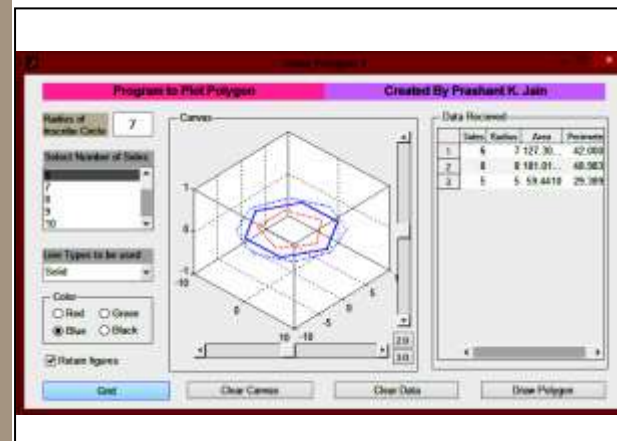
**Dr. Pavan Kumar Kankar**  
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Website: [ict.iiitdmj.ac.in](http://ict.iiitdmj.ac.in)

## Computational Methods and GUI Development for Scientists and Engineers

October 28 – November 1, 2015

Hands-on Experience Oriented Skill Development Program



## Faculty Development Programme Under Electronics and ICT Academy

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

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

Building  
Human  
Resource  
For  
Digital India

EI&ICT Academy  
IIITDMJ

**Faculty Development Programme  
on  
Computational Methods and GUI  
Development for Scientists and Engineers  
October 28 – November 01, 2015**

About the course:

It is hands-on experience oriented skill development program with extensive applications of computational methods and specific programming exercises. Course will be beneficial to beginners as well as practitioners of different domain. Teaching methodology will be adopted in such a manner that all can cope up even those who do not possess any prior knowledge of computational methods and programming. Case studies of advanced application of MATLAB will be presented by highly motivated researchers/faculty and they will also demonstrate applications of computational methods through their recent research works. Course content will cover basic introduction to MATLAB, computational methods, plotting visualization using MATLAB, data input/output in various format, generating executable files and stand-alone applications, building Graphical user interface (GUI), introduction to Simulink etc.,

**List of Resource Persons:**

Prof. Aparajita Ojha, PDPM IIITDM Jabalpur  
Dr. P.M. Pandey, Associate Professor, IIT Delhi  
Dr. Sunil Agrawal, Associate Professor, PDPM IIITDM Jabalpur  
Dr. Prashant K. Jain, Associate Professor, PDPM IIITDM Jabalpur  
Dr. Pavan K. Kankar, Assistant Professor, PDPM IIITDM Jabalpur  
Dr. Sachin K. Jain, Assistant Professor, PDPM IIITDM Jabalpur

**Course Contents**

**Basics of Computational Methods using MATLAB**

MATLAB Applications demonstration, Introduction to MATLAB User Interface, Basic Operations, Using MATLAB as Calculator, Handling Variables, Data Format, Expressions and Matrices, Conditional/ logical Statement, Execution Control, Loops, Writing Functions, Data Input/Output in Various Format, 2D Plotting Visualization Using MATLAB, 3D Plots, Modifying plots using property editor, Automating Plots, Building Graphical User Interface (GUI) Basics, Polynomials, curve fitting and interpolations, Introduction to Simulink and Creating simulation using Simulink, Debugging and Troubleshooting programs, Building GUI's by own, Generating Executable Files and Stand-Alone Applications, Applications of Symbolic Math

**Recent Features:**

Numerical Methods, Optimization using MATLAB, Projects/Case studies Demonstration, Handling data in MS Excel, Development Tools and Programming Techniques.

**Schedule**

There will be two lecture sessions followed by hands on experience every day.

Day-1: MATLAB User Interface and applications, Using MATLAB as Calculator, Programming Basics

Day-2: Conditional/logical Statement, Execution Control, Using Functions, Optimization using MATLAB.

Day-3: 2D/3D Plotting Visualization, Automating Plots, Polynomials, curve fitting and interpolations

Day-4: Building Graphical User Interface (GUI) Generating Executable Files and Stand-Alone Applications, Reading writing text files

Day-5: Creating simulation using Simulink, Projects/Case studies Demonstration, Symbolic Math

**Contact Us**

*The Course Coordinator,  
Computational Methods and GUI Development for  
Scientists and Engineers  
Electronics and ICT Academy  
PDPM Indian Institute of Information Technology,  
Design and Manufacturing, Jabalpur,  
Dumna Airport Road, Jabalpur 482005  
[academyiiitdmj@gmail.com](mailto:academyiiitdmj@gmail.com)*

**Website: [ict.iiitdmj.ac.in](http://ict.iiitdmj.ac.in)**

**Application for Registration**

Name of the Applicant (first, last): \_\_\_\_\_

Gender: \_\_\_\_\_

Designation: \_\_\_\_\_

Name and Postal 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 from the evening of October 27 to the morning of November 02, 2015.**

Name and designation of the authority who  
forwarded the application /gave approval for  
attending the course) \_\_\_\_\_

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 \_\_\_\_\_