# 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 Soft Computing and Programming for Science and Engineering Research

Who can attend: Programme is open to faculty from all colleges and universities preferably from the states of Madhya Pradesh, Chhattisgarh, and Maharashtra. Faculty members from other states are also eligible. 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: September 5, 2018 Spot Registration also available if seats are available. Course Dates: September 15-20, 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: academyiitdmj@gmail.com
Website: ict.iiitdmj.ac.in

## **Faculty Development Programme**

# Soft Computing and Programming for Science and Engineering Research

September 15-20, 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

Building Human Resources For Digital India

E&ICT Academy

# Soft Computing and Programming for Science and Engineering Research September 15-20, 2018

### **Course objectives:**

The course is designed to provide comprehensive knowledge and training on soft computing starting from basics to the emerging techniques and their applications. Optimization is an important aspect of solution design for problems in science, engineering and social sciences. The present course aims at providing theoretical knowledge and hands-on training on optimization through fundamental and advanced soft computing approaches such as Fuzzy Logic, Genetic Algorithms, Particle Swarm Optimization, and Deep Neural Networks. In the lab sessions participant will be exposed to programming skills for using soft computing techniques in MATLAB\Python.

The course outcome is envisioned as enhancement of knowledge-base on optimization techniques and confidence-building among faculty members in using soft computing approaches for optimization problems in different application domains. After successfully completing the course, the participants will be able to apply these techniques and suitably train the algorithms for optimized performance.

### **Resource Persons**

- Prof. Aparajita Ojha Professor, PDPM IIITDM Jabalpur
- 2. Prof. Vijay Kumar Gupta Professor, PDPDM IIITDM Jabalpur
- 3. Dr. Prabin Kumar Padhy
  Associate Professor, PDPDM IIITDM
  Jabalpur
- 4. Dr. Pavan Kumar Kankar Assistant Professor, PDPDM IIITDM Jabalpur
- Dr. Sachin Kumar Jain
   Assistant Professor, PDPDM IIITDM Jabalpur

## **Course contents**

The course aims to provide comprehensive exposure to Soft Computing Techniques in Optimization. The topics include:

- Fuzzy Logic and Applications
- ANN and Advances in Deep Neural Networks
- Evolutionary Algorithms and their Applications
- Swarm Intelligent Systems and Applications
- Case Studies and Emerging Optimization Techniques
- Algorithm Programming for different applications in MATLAB\Python

#### **Course Coordinators**

Prof. Vijay Kumar Gupta Email: ykgupta@iiitdmi.ac.in

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

# **Application Form**

Name of the Course / Programme: Soft Computing and

Optimization
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 September 14 to the morning of September
21, 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