## 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

## Object-Oriented Programming using java

Who can attend? The programmes are open to faculty, research scholars, and master 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 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 <a href="mailto:atulkg@gmail.com">atulkg@gmail.com</a>

Please also send/post your duly-filled application form endorsed by the forwarding authority along with the required DD of the registration fee (add accommodation charges, if needed) in favour of 'Electronics and ICT Academy, IIITDMJ' payable at Jabalpur to the contact address. Please ensure that your complete application should reach to us by October 13, 2015. No Travelling Allowance will be paid by the Academy.

#### **Important Dates:**

Last Date of Online Registration: Oct. 12, 2015 Spot Registration also available if seats are available.

Course Dates: Oct 15-21, 2015

### **Registration Fee:**

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

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

**Course Coordinators** 

Dr. Atul Gupta
Email: atulkg@gmail.com, atul@iiitdmj.ac.in
Mobile - 9425152499
Dr. Vinod Kumar jain

Email: vkjain1978@gmail.com, vkjain@iiitdmj.ac.in

Mobile - 9425156298 Website: ict.iiitdmj.ac.in

# Object-Oriented Programming using Java

October 15-21, 2015

Seamless Learning Opportunities



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

El&ICT Academy

## Faculty Development Programme on Object-Oriented Programming using Java October 15-21, 2015

About the course:

This course is about object-orientation and programming in Java. The course is customized to meet the state of art industrial strength coding requirements of Java, which is a multipurpose, easy to learn, powerful platform where virtually a complete application in any domain can be implemented. Java is the most widely used language for developing open source software systems. With Java, there comes huge library support which reduces the development time and enhances software reuse for faster development.

The course will cover the basics of objectorientation and their realizations in Java. After covering some of the basic language features the course will concentrate on collection framework and reflections.

It will also cover the recent enhancement in Java language like Lambda expression, default method in interface.

#### **List of Resource Persons:**

Mr. Allahbaksh Asadullah Infosys Ltd.

Mr. Taha Asadullah, CEO Geelani Consultancy & Solutions

Mr Avitash Purohit, Research Associate, Infosys Ltd.

Dr. Atul Gupta, Associate Professor, Computer Science and Engineering PDPM IIITDM Jabalpur

Dr. Vinod Kumar Jain, Assistant Professor, Computer Science and Engineering PDPM IIITDM Jabalpur

## **Course Contents**

## Basics of O-O Concepts and Java features

Real-world modeling and relationships, Objects and classes, message passing, encapsulation, data hiding, class relationships, Association, Composition, and delegation, Abstract Classes, Interfaces, Inheritance and behavioral subtyping, Polymorphism and Dynamic Binding, Java features like exception handling, multithreading

Class Loader, Reflections, Proxy Pattern, Annotation, Enum, Basic Library like Collection, IO, JDBC, Java Module System, JVM

#### **Recent Java Features:**

Lambdas, Stream, Default Method, Advance Java Concepts, Dynamic Language Support in JVM, JSON, REST

#### Schedule

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

Day-1: Introduction OO Fundamentals using Java

Day-2: Exception Handling, Static Blocks, features like Enum, Annotations etc.

Day-3: Generics Basic Libraries like Collection, IO, JDBC

Day-4: Concurrent programming using Java, JAR and how to deploy applications

Day-5: Java 8 features like Lambdas, Default Method and Streams

Day-6: Concept of Reflection, Class Loader, Proxy Pattern

Day-7: JSON, REST based web service

At each stage of course, there will be practical examples and design patterns which are used in programming.

#### **Contact Us**

The Course Coordinator,
Object-Oriented Programming using Java
Electronics and ICT Academy
PDPM Indian Institute of Information Technology,
Design and Manufacturing, Jabalpur,
Dumna Airport Road, Jabalpur 482005
Mobile: 9425152499

## 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 only from the evening of Oct 14 to the morning of October 22, 2015.
Name and designation of the authority who forwarded the application /gave approval for attending the course)
DD NumberDate
Issuing Bank, payable at
Signature of the Applicant
I hereby agree to relieve Mr./ Ms./ Dr Ir case she/he is selected to attend the programme.
Signature and Seal of the Forwarding Authority
Name Designation