

Faculty Development Program on Object Oriented Programming

November 20-29, 2017, MNIT Jaipur (E & ICT Academy)

IIT Guwahati



IIITDM Jabalpur



MNIT Jaipur



NIT Patna



IIT Roorkee



NIT Warangal



Patrons

Prof. Udaykumar R. Yaragatti

Chairman, Advisory Board,
EICT Academy & Director MNIT Jaipur

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Academic Chair, EICT Academy

Prof. Vineet Sahula

Chief Investigator, EICT Academy

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MNIT, Jaipur

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Dr. Akshay Deepak

NIT, Patna

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Prof. V. Ravindranath

JNTU, Kakinada

Dr. Nagesh Bhatt

IDBRT, Hyderabad

Dr. T. Ramakrishnudu

NIT, Warangal

Important Dates

Last date for application :

19th November 2017

Selection list intimation:

19th November 2017

Global Coordinator

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Visit us at : <http://www.mnit.ac.in/eict>

Email us at : academy@mnit.ac.in

Course Content

Object Oriented Programming: Introduction to OOP, Basic Concepts - Classes, Objects; OOP properties - Encapsulation, Abstraction, Inheritance, Polymorphism.

Java Programming: Introduction to Java, JVM, JRE, JDK; Programming. Constructors, Method Overloading and Overriding, Inheritance, Dynamic method dispatch, Type conversion and type casting, Coping with complexity, Super Class Access and non-access modifiers, Abstract Classes, Interfaces, Packages Garbage collection, Factory methods, Exception handling, Java threads, File handling
Introduction to C++, Comparison with Java, Member functions, Constructors and Destructors, Inheritance, Friend functions, Operator overloading, Virtual functions, Abstract classes, C++ templates.

Python Programming: Python: Introduction, Variable Type, Operators, Working with lists and importing libraries, The Random library. Formatting, Statistics, and a Menu Driven Database Program, Tuples, Data dictionaries, Text and CSV Files, Sorting, Functional values. Applied Plotting, Charting & data representation in Python, Applied Machine Learning in Python. Introduction to SciKit, text mining and text manipulation basics, basic natural language processing methods to text.

Scala Programming: Scala: Basic, Object Oriented Programming classes, case objects, (Collections, Idiomatic Scala), Case studies/Demo- Scala applications

R Programming: R Basics: Introduction, Syntax, Variable Type, Basic Operators, flow control, functions, data structures. Exploratory data analysis. Pre-model-building activities - univariate and bivariate analysis, outlier detection, and missing value treatment. Linear and non-linear regression modeling and classification models, unsupervised learning algorithms, time series analysis and forecasting models and text analytics. Term Document Matrix, normalize with TFIDF, word cloud; cosine similarity, Latent Semantic Indexing (LSI) as a vector space model to group similar documents. Programming Plot function, color and 3D Plots. Constructing charts using the Ggplot2, multiple strategies to speed up R code; `dplyr` and `data table` packages, pipe operator; interface C++ code in R using Rcpp package; building an R package using facilities from the roxygen2 and dev tools packages.

Course Registration & Fee

- Registration is done online at http://www.mnit.ac.in/eict/apply_now.php
- A duly filled-in application form in the prescribed format duly signed and sponsored by the Head of the Institute to which candidate belongs (along with demand draft / wire transfer details) should reach by post to the local coordinator of the participating academy
- Registration Fee:**

Faculty Members:	Rs. 3000/-
Faculty of SC/ST Category:	Rs. 1500/-
Persons from Industry:	Rs. 9000/-

4. Mode of payment:

Demand draft in favor of "Electronics and ICT Academy, MNIT Jaipur"
Payable at Jaipur

Online Mode:

Account Name- 'Electronics and ICT Academy MNIT Jaipur'	
Account Number- 676801700483	IFSC Code- ICIC0006768

5. Accommodation:

Boarding and Lodging will be provided at free of cost.