Workshop

On

Python Programming with Industry Perspective

02-06 December 2019

Department of
Computer Science & Engineering
National Institute of Technology Rourkela
Odisha – 769 008, India

In Association with

E & ICT Academy
Malaviya National Institute of Technology Jaipur
Rajasthan, India.

Coordinators of the course:

Prof. Korra Sathya Babu
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Prof. Anup Nandy
(nandya@nitrkl.ac.in)

Who is eligible for applying?
Faculty members from academia and PhD students. Other students and industry participants can attend the workshop with full non refundable registration.

Registration Details:

There is no registration fee for the workshop for faculty and PhD scholars, but the participants should prepare a DD of Rs. 1000 which will be returned at the end of the course.

How to apply:
The registration has to be done by online application available in mnit.ac.in → Central facilty → E&ICT and choosing the Python Programming with Industry Perspective. A scanned copy of DD of Rs. 1000 need to be uploaded during the registration process and submit to the local coordinator, which will be returned after successful completion of the course. The DD should be drawn in favour of "EICT Academy, MNIT Jaipur" payable at Jaipur, (ICICI MNIT branch (code: ICIC0006768) or (SBI, MNIT Campus Branch, Jaipur IFSC Code: SBIN0015921). The scrutiny details will be intimated through mail/phone to the candidates.

Accommodation and Food

- The outstation participants will be provided **paid** accommodation based on the availability
- No travel allowance will be given.
- Free working lunch will be provided during the programme

Important Dates:
Application Deadline: 25 November 2019
Selection date: 26 November 2019

About the Workshop
This course will be offered through National Knowledge Network (NKN) based Video Conferencing, with lectures delivered by invited experts from IITs, NITs, IIITs and other premier institutes/industries. In addition, local course coordinators will take care of sessions on design orientation/activity linked problems/ assignments/ case studies and quiz test(s).

Course Content
Introduction & basics of to Python Programming: Installing Python, Python Implementations. Character Set, Token, Data Type, Assigning Value and print, input function, Formatting Number and Strings, Operators and Expressions.

Decision Statements; Loop Control Statements; Functions, Strings
Boolean Type, Boolean Operators, Decision Making Statements and Conditional Expressions While loop, range( ) Function, For Loop, Nested Loops, Break Statement, Parameters and Arguments, Scope of a Variable, return statement and Recursive Functions. str class, Inbuilt functions for String, index operator, String Operations

Lists and Dictionaries; Tuples and Sets; File Handling; Pandas
Creating Lists, operators, Slicing, Inbuilt functions, Methods, Splitting, Dictionary, Tuples and Sets, Indexing and Slicing, Classes and objects, File Handling, Pandas: the python data analysis library and data frames.

Data Handling and Use Cases
RE Pattern Matching, Parsing Data, Regression, Types, Use Cases, Exploratory data analysis, Correlation Matrix, Visualization using Matplotlib and Implementing linear regression.

Machine Learning
Decision Tree, SVM, Random Forest, Comparison of different models

Experts
Prospective external Experts- (i) Dr. Mani Madhukar, Program Manager - University Relations, IBM India Pvt. Ltd. (ii) Dr. E. S. Pilli