A.K.Dasgupta Centre for Planning & Development,
[A Centre sponsored by the NITI Aayog, Govt. of India]
Visva-Bharati, Santiniketan, West Bengal

32nd Two-Week National Workshop
On
Understanding Python and its Application in Research and Development

Date: 27th September to 10th October, 2023

Venue: 33, Purbapalli, Santiniketan

A.K.Dasgupta Centre for Planning & Development,
Visva-Bharati, Santiniketan, West Bengal
Organizes
Two-Week National Workshop
On
Understanding Python and its Application in Research and Development
Date: 27ᵗʰ September-10ᵗʰ October, 2023

Python is an all purpose, versatile, high-level, powerful dynamic object oriented programming language that is used in a wide variety of applications like Machine Learning, Artificial Intelligence, Web Development, Mobile Application, Scientific calculations, Robotics, Gaming, Data Analysis etc. Python supports several programming paradigms, including object-oriented, imperative and functional programme styles.

Python is becoming very popular because of its:

- Simplicity
- Capability
- Efficiency
- Object orientedness
- Abstraction
- Portability
- Free and open source availability
- Easy to write code
- Easy to debug code
- Integrated [with C, C^{++}, Java etc]
- Availability of Robust Standard Library

The Centre invites applications from faculty member of colleges, universities, management executives, research scholars, web designers and the interested individuals having suitable background who wish to enhance their understanding on application of Python in research and development.

Objectives of the Workshop

The main objective of this Python workshop is to introduce the audience with the beauty of Python programming language and motivate the participants to enhance their programming skills for research activities. Python is easy to learn as compared to other available programming languages. Here, it is easy to write a code since its syntax is very simple. It includes, many libraries, modules, in-built functions and data structures. Before stepping in, the learning objective must be made clear to the participants. Here we will deal with Scientific Calculations under the library Mathematics: Numpy, Panda etc. Python can also be used for Web development, Machine learning etc. but that needs the use of different libraries and frameworks.

Expected Outcome

This is a fundamental course on Python helping a learner to know the essence of programming principles. After attending this course the participants will be able to:

 1) Understand the concepts behind computational thinking
2) Apply computational thinking in terms of programming exercises
3) Develop applications using Python
4) Contribute to projects on Python in Open source Domain

Course Overview

1. Python Basics
2. Functions and Modules
3. Python Strings
4. Iterables: Sequences, Dictionaries, and Sets
5. Flow Control
6. Regular Expressions
7. Use of statistical tools in Python
8. How to write code in Python
9. Correlation & Regression: Bivariate Plots, Introduction to Regression, Multiple linear regression using Python
10. Principal Component Analysis [PCA], Cluster analysis, Factor analysis,
11. Analysis of Variance, Repeated Measurement model
12. Discriminant Analysis , logistic regression
13. Comparing Categorical Variables, Association, Chi- Square tests, Goodness of fit tests
14. Testing of statistical hypothesis [Parametric and Non-Parametric tests]

Applicants have to mail their soft copies of application mentioning their present status on or before 24th September, 2023. Applicants should mention their contact address, telephone number, e-mail address and institutional affiliation. The application to be addressed to Prof. Debasis Bhattacharya, Chair Professor, A.K.Dasgupta Centre for Planning & Development, Visva-Bharati. Application must reach vbplanning46@gmail.com within due date.

Registration fee: Rs.2000/- for Faculties and Rs.1000/- for other participants. Registration Fee to be paid online. Details of payment will be provided after selection. The workshop has been designed to be held in "Online mode". The order of participation in the programme will be made on last come first out basis.Participants will be given completion certificate mentioning the obtained grade in evaluation done at the end of the workshop. The timing of the workshop will be from 2.30p.m. to 8.00 p.m.

Important Dates

Last Date for receiving application: 24th September, 2023

Letter of Acceptance: 24th September, 2023

Email for Correspondence: vbplanning46@gmail.com

For Assistance: Call to Sri Daya Shankar Kushwaha, Ph-9474644413

Visit website for other information: akdcentrevisvabharati.org

Application Form

Name :

Address

Designation & Institutional address

Institution Affiliation:

Ph. No.:

E-mail :

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Signature of the applicant