

**A.K.Dasgupta Centre for Planning and Development,
Visva-Bharati, Santiniketan**

[A Centre sponsored by the NITI Aayog, Govt. of India]

Organizes

**40th National Workshop [Hybrid mode]
On
Application of Python in Research and
Development**

Two-Week National Workshop
Dates: 31st August to 12th September, 2026
Venue: NIRALA, 33 Purbapalli, Santiniketan
Visva-Bharati, Santiniketan
Birbhum, West Bengal, India

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On**

Application of Python in Research and Development

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Python is a top professional skill known for its simplicity and developer friendliness. Python is a versatile high-level scripting language suited for everything from text processing and system admin to research work. What sets it apart from other similar languages is its compact, beginner-friendly core that's quick to learn, yet it supports endless functionality through add-on modules. It's a fully object-oriented language and runs on almost every major platform available.

Python is becoming very popular because of its:

- Simplicity
- Capability
- Efficiency
- Object orient
- Abstraction
- Portability
- Free and open-source availability
- Easy to write code

The Centre is accepting applications from college and university faculty, management professionals, research scholars, academicians, and other qualified individuals who want to deepen their knowledge in connection with Python for research and development.

Objectives of the Workshop

The primary goal of this Python workshop is to showcase the elegance of the Python programming language and encourage participants to sharpen their coding abilities for research work. Python is easier to pick up than most other programming languages. Python having clean, straightforward syntax that makes writing code simpler. The workshop covers a wide range of topics from data preprocessing, data description and visualization using Python. It comes with a rich set of libraries, modules, built-in functions, and data structures. This workshop will focus on scientific computing using mathematics-related libraries like NumPy and Pandas. Through hands-on practice with real-world datasets, the participants of this workshop will learn how to prepare data, generate summary statistics, visualizations, machine learning models and how to analyze qualitative data using quantitative techniques.

Expected Outcome

This is an introductory Python course designed to help learners grasp the fundamentals of programming. Upon completing the course, participants will be able to:

1. Understand the core principles of computational thinking
2. Use computational thinking to solve programming problems
3. Build applications with Python
4. Contribute to Python projects in the open-source community

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 **25th August 2026**. Applicants should mention their contact address, telephone number, e-mail address and institutional affiliation. The application to be addressed to Prof. Bidhan Chandra Roy, Chair Professor, A.K.Dasgupta Centre for Planning & Development, Visva- Bharati. Application must reach **pa2cp.akdc@visva-bharati.ac.in** within due date.

Important Information Regarding Registration

- Registration fee: Rs.3000/- for Faculties attending at A.K.Dasgupta Centre [offline mode].
- Registration Fee: Rs.2000/- for Faculties attending in Online mode
- Registration Fee for Research Scholars and other participants: 1000/- [Online] and Rs.1500/- [Offline]

Registration Fee to be paid online. Details of payment will be provided after selection. **The workshop has been designed to be held in “Hybrid mode”.** The order of participation/selection in the programme will be made on last come first out basis. The timing of the workshop will be from **2.30p.m. to 7.30 p.m.** Participants will be given completion certificate mentioning the obtained grade in evaluation done at the end of the workshop

The participants attending offline sessions will have to bear their own travel, boarding and lodging expenses and bring their own laptop for hands on practice. The session timing will be from 2.30 p.m. to 7.30 p.m.

Important Dates

Last Date for receiving application: 25th August, 2026

Letter of Acceptance: 27th August, 2026

Email for Correspondence: pa2cp.akdc@visva-bharati.ac.in

For Assistance: Call to Sri Daya Shankar Kushwaha, Ph-8250895078

Visit website for other programmes information:

<https://www.visvabharati.ac.in/home/akdasguptacentre/>

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on
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Application of Python in Research and Development
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Affix Photo

Application Form

1. Name (in capital letters):
.....
2. Address [Institution] :
.....
3. Educational
Qualifications:.....
4. Gender
5. Address [Home] :.....
6. Marital Status:
7. Faculty/ Scholar/ Student/ Other (specify).....
8. Topic of the research [if any]:.....
9. Area of specialization [if any]
.....
10. Present Status of Research work: (Preparing / Synopsis/ Reviewing
 loopsis/Reviewing literature/Preparing Tool/Collecting Data/Analysing
 Data/writing Report/Thesis/other [If applicable]
11. Department:.....

12. Name of the Institution and /or University (M.Phil /Ph.D. . enrolled) :

13. Name of the Supervisor and Contact number, e-mail

.....

14. Mailing address and Phone no

Address:.....

Mobile

WhatsApp No.

Email:.....

I am hereby submitting my application form along with the photograph duly forwarded by Head/Dean/Department/Faculty.

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Date

.....

Place

.....

Signature of Applicant