

# Hands-on Training PYTHON, BIOPYTHON & R FOR BIOINFORMATICS



3 Weeks | 08 Oct. to 28 Oct. 2025  
Registration Closes: 07 Oct. 2025  
7.00 PM - 8:00 PM (IST) | Monday to Friday



This training offers practical training in Python, Biopython, and R with a focus on solving real-world bioinformatics problems. Participants will learn to handle biological data, perform sequence analysis, and apply statistical and visualization techniques. The sessions are designed to build coding proficiency, analytical skills, and confidence in using these essential tools for bioinformatics/biological research.

## Registration Process

Eligibility: Students pursuing B.Sc., B.Tech., M.Sc., M.Tech., PhD in life sciences/computer science as well as Teaching and Industry Professionals.

To get the application form and fee details and for any other queries, write to us at [info@cbirt.net](mailto:info@cbirt.net) or call us at +91 6398142849.



Visit: [www.cbirt.net/training](http://www.cbirt.net/training)

## Program Benefits

- Certificates
- Access to Live Sessions
- Recordings
- Workshop Materials
- Online Technical Support Post Training

## Topics

### Python:

- Introduction to Python
- Installation of Python
- Data Types, Data Structures, Control Flow

### Biopython:

- Installation of Biopython
- Installation of core Biopython Libraries (Pandas, NumPy, Logo Maker)
- Sequence Analysis & Retrieving Sequence, Data Visualization, Alignment, Annotation

### R:

- Getting Started with R and RStudio
  - Overview, setting up, and essential tools.
- Data Structures in R
  - Vectors, matrices, bio-specific data types (Biostrings)
- Writing and Executing R Code
  - Console interactions, scripting, and debugging
- Looping and Control Flow
  - Loops, conditional statements, vectorization
- Functions in R
  - Writing modular code, functional programming
- Data Visualization
  - Basic and advanced bioinformatics plots
- Statistical Analysis in R
- Sequence Analysis with Bioconductor

## Course Instructors

- Dr. Shikha Mittal, Bioinformatics Trainer, CBIRT
- Dr. Tamanna Anwar, Training Organizer & CoFounder, CBIRT



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To register for the workshop, please submit the registration form along with your payment details. We accept multiple payment methods to ensure a convenient and secure registration process.



## REGISTRATION PROCESS

SCAN THE QR CODE FOR THE  
REGISTRATION FORM



### STUDENTS

**Upto Masters** **PH.D**  
INR-2250 INR-2500



### POSTDOC/RESEARCH SCHOLARS

INR-2750



### STAFF/FACULTY

INR-3000



### INDUSTRY PROFESSIONALS

INR-3500



### INTERNATIONAL PARTICIPANTS

(Including all Living, Working, or Studying Abroad at the time of the Workshop).

STUDENTS	POSTDOC/ RESEARCH SCHOLARS	STAFF/FACULTY	INDUSTRY PROFESSIONALS
<b>Upto Masters</b> <b>PH.D</b>			
USD 40 USD 45	USD 50	USD 60	USD 65

## PAYMENT METHODS

### SCAN QR CODE



centreofbioinformaticsresearch@cnrb

### UPI ID



### PAYPAL ID



PayPal.Me/cbirt1

### ONLINE TRANSFER

Account No. - 120023770387  
Bank Name - CANARA BANK  
IFSC Code - CNRB0002336  
Branch Code - 002336  
Branch - Kelangar, Aligarh

Payable to: Centre of Bioinformatics  
Research and Technology

For Queries/More Details Contact: [info@cbirt.net](mailto:info@cbirt.net)

