

**2-Day National Workshop**  
**on**  
**“Basics of NGS Data Analysis”**  
**24<sup>th</sup> – 25<sup>th</sup> August, 2023**  
**Organized by: Bioinformatics Infrastructure Facility**  
**UNIVERSITY OF KALYANI**  
**REGISTRATION FORM**

**Name** :  
(Dr./Prof./Mr./Ms.)

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Approval by appropriate authority \*

Signature of Applicant

\* Authority may be the Research Guide or HOD for students.  
Please send the scanned filled Registration Form along with the transaction details of registration fees through Email.  
The final completed form can be submitted by hand at the registration desk of workshop

\*Printout or Xerox copy of this form may be used.

### About the Institute

University of Kalyani was established by the Chief Architect of Modern Bengal, the great philanthropist and physician Dr. Bidhan Chandra Roy in the year 1960. The university is situated in a surrounding close to the mother earth covering an area of 400 acres in Kalyani town of West Bengal with national highway (N.H.34) on one side and the river Ganges on the other.

The DBT funded Bioinformatics Infrastructure Facility (BIF), housed in the Department of Biochemistry and Biophysics took its inception in the year 2006 with a view to serve all the Life Science Departments of this university, as well as, the neighboring institutes.

### WORKSHOP COMMITTEE

**Chief Patron: Prof. (Dr.) Amalendu Bhunia**

Honorable Vice-Chancellor, KU

**Guest of Honor: Prof. Partha Pratim Majumder**

NIBMG, Kalyani

**Advisors: Prof. (Dr.) Keka Sarkar**

Dean, Faculty of Science, KU

**Prof. (Dr.) Nanda Kumar Ghosh**

Director, IQAC, KU

**Convener: Prof. Angshuman Bagchi**

Coordinator, BIF, KU

**Organizing body:** Members of BIF, KU

### **Address for Communication:**

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**DBT Sponsored**  
**National Workshop**  
**on**

***Basics of NGS Data Analysis***

**24<sup>th</sup> – 25<sup>th</sup> August, 2023**

*Organised by*



**Bioinformatics Infrastructure Facility**  
**(BIF) Centre**

at

Department of Biochemistry & Biophysics

**University of Kalyani**

Kalyani – 741235

West Bengal

India

*Sponsored by*



**Department of Biotechnology**  
**Ministry of Science and Technology**  
**Government of India**

## About the workshop

In the last decade, more biology-related information has accumulated than in the preceding two and a half thousand years of the history of science. This new surge of information mostly consists of nucleic acid and protein sequences and their structures. Bioinformatics has emerged as a new field at the interface of informatics and molecular biology in the mid-1980s, with the aim of storing and analysing the huge amount of data provided by DNA sequencing. **Bioinformatics is a multidisciplinary field, involving researchers from different areas of specialty, including (but in no means limited to) physics, chemistry, genetics, molecular biology, mathematics, computer sciences and statistics (i.e. informatics methods) to derive knowledge from computational analysis of experimental biological data statistics.**

Bioinformatics plays a dominant and indispensable role in Next-Generation Sequencing (NGS). It is instrumental in various stages of the NGS workflow, including data preprocessing, quality control, read mapping, variant calling, and data interpretation. Through sophisticated algorithms and tools, bioinformatics efficiently manages and analyzes massive volumes of genomic data, revolutionizing genomics and molecular biology research. It empowers researchers to extract meaningful insights, identify genetic variations, understand biological processes, and unravel disease mechanisms. The integration of bioinformatics with NGS has opened new avenues for personalized medicine, agriculture, environmental studies, and other areas, fueling scientific advancements and innovations.

Organizing this national workshop on “**Basics of NGS Data Analysis**” is an attempt to popularise the use of

this subject among young students with most common types of analysis by providing lectures and demonstrations of many tools.

### Topics to be covered

Studying and visualizing Biological components

- Biological Databases
- Database Searching
- Sequence Alignment
- R programming

### Eligibility

Faculty members from Universities and affiliated colleges, Scientists and Scholars from R & D Institutes, Professionals from Industries and Biotech companies, Post-Graduates, Under-Graduate and school level students with knowledge in biology are welcome to register for the workshop.

As the numbers of participants are limited strictly to 30, selection will be done on a first come, first served basis.

### How to apply

The registration fees for participants are **Rs. 500/-** for all. Interested candidates may register their name by submitting the registration fee through **SBI Collect only**. The procedural details can be seen using the following link.

<https://drive.google.com/file/d/1vfWuDj3uoTqTeiRwVK5amTuv4dJ9sij/view?usp=sharing>

Dully filled registration form (see last page of this brochure) and the transaction details of fees can be sent through email given below. **Selected candidates will be intimated after successful completion of the process.**

**Communication Email ID:** [bif.workshop23@gmail.com](mailto:bif.workshop23@gmail.com)

- Last date of application by email is **20<sup>th</sup> August 2023**.
- The registration fee includes course material, lunch and refreshments.
- Number of participants is limited to **thirty**.

**Outside candidates can search for different hotels / guest house near University area. NO ACCOMMODATION WILL BE PROVIDED BY THE AUTHORITY.**

### Tentative Speaker list

**Prof. Partha Pratim Majumder**

FNA, FNASC, FTWAS,

Distinguished Professor

Former Director, NIBMG, Kalyani

**Dr. Richi V Mahajan**

Scientist C

DBT, Govt. of India

**Dr. Matthew Mort**

Research Fellow for the Human Gene Mutation Database (HGMD), Institute of Medical Genetics Building, University Hospital of Wales, Heath Park, Cardiff, CF14 4XN