



Bioinformatics Centre, Savitribai Phule Pune University announces

DBT sponsored national workshop on

“Advances in Computational Genomics: Algorithms, Analyses & Applications”

February 20–24, 2018.

Online registration form available at: <http://bioinfo.net.in/>

Preamble:

The rapidly developing field of genomics is widely accepted as having a transformative impact on biomedical research and the delivery of health care. The initiatives such as the The 1000 Genome Project, Cancer Genome Atlas, the human microbiome project seek to investigate variations in millions of individuals at the level of the genome, microbiome, and metabolome in the context of their individual health history. Genome scale sequencing is also being used to address important biological research questions and thus there is an increase in the use of genomics based approaches such RNA-seq, exome sequencing, ChIP sequencing, Bisulphite sequencing, non-coding RNA sequencing, etc. in biomedical research.

Technological advancements in genome sequencing have led to a tremendous explosion in generation of sequence data. Archiving, processing and analysis of this data using computational methods is the crucial for knowledge discovery. The complexity and volume of genomic data call for several specialized methods for the subsequent processing and analyses. The present workshop aims to cover some of the state-of-art techniques in the area of NGS data analysis which will enable a basic understanding and applications-oriented perspective among the participants.

About Bioinformatics Centre:

The Bioinformatics Centre at the Savitribai Phule Pune University (Formerly University of Pune) was established in 1987 under the BTIS network of the DBT, Govt. of India. The centre focuses on Human Resource Development through its M.Sc. Bioinformatics Program. Several databases, algorithms and prediction servers in various streams of bioinformatics have been developed and hosted at the centre. The Centre also undertakes research in Next Generation Sequence data analysis and high throughput data mining for knowledge discovery.

Contents: The workshop will cover areas ranging from sequencing technology, to generation of genomics data, processing, analysis of data and applications with case studies. The following topics will be discussed with an orientation of how they are relevant for problem solving in biological systems.

- Introduction to Sequencing platforms, multiplexing and NGS data
- Various techniques of genome-wide data analysis as applied to specific case studies:
 - Reference and de novo genome assembly, Variant identification
 - Genome annotations
 - Nature and representation of genomic data obtained from various sources
 - Browsing Genome databases
 - Chromatin Immunoprecipitation Sequence (ChIP-Seq) data analysis,
 - bisulphite sequence data analysis,
 - High-throughput differential gene expression analysis
- Comparative genomics and whole genome phylogeny studies
- Metagenomics



Target audience: Research students, Faculty members, Scientists in the area of Life Sciences and technology

Number of participants: 20

Important dates of Workshop:

Release of the first circular: **Jan 30, 2018**

Registration: **Jan 30– Feb. 14, 2018**

Last date of submission of printed application form and DD: **Feb 14, 2018**

Intimation of selection of participants: **Feb 15, 2018**

Workshop: **Feb 20-24, 2018**

Steps of application:

1. Download application form from site <http://bioinfo.net.in/>
2. Fill up the application form and take a print out.
3. Send the hard copy of application form along with Demand draft and relevant documents to “The Director, Bioinformatics Centre, Savitribai Phule Pune University, Pune, 411007” before the deadline.
4. Please quote the following on your envelop “Application for Genomics Workshop 2018”

Accommodation:

Limited number of accommodations are available upon request.

The expenses for accommodation are to be borne by the participants

Registration fees: The registration fee is to be paid by Demand Draft (of any nationalized bank) drawn in favour of “Finance and Accounts Officer, Savitribai Phule Pune University”, payable at Pune. The registration fee includes course material, lunches, tea/coffee. Note that the registration fee doesn't cover accommodation charges.

Location	Category	Registration fees
India	Research students/Project assistants	INR 5000
	Faculty members /Scientists (Academic/ R&D institutions)	INR 7000
	Industry Professionals	INR 10000
SAARC		USD 200
Other Countries		USD 500

Workshop Coordinators: Dr. Abhijeet P Kulkarni & Dr. Rohan J Meshram

Director: Dr. Sangeeta V Sawant

Contact details:

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