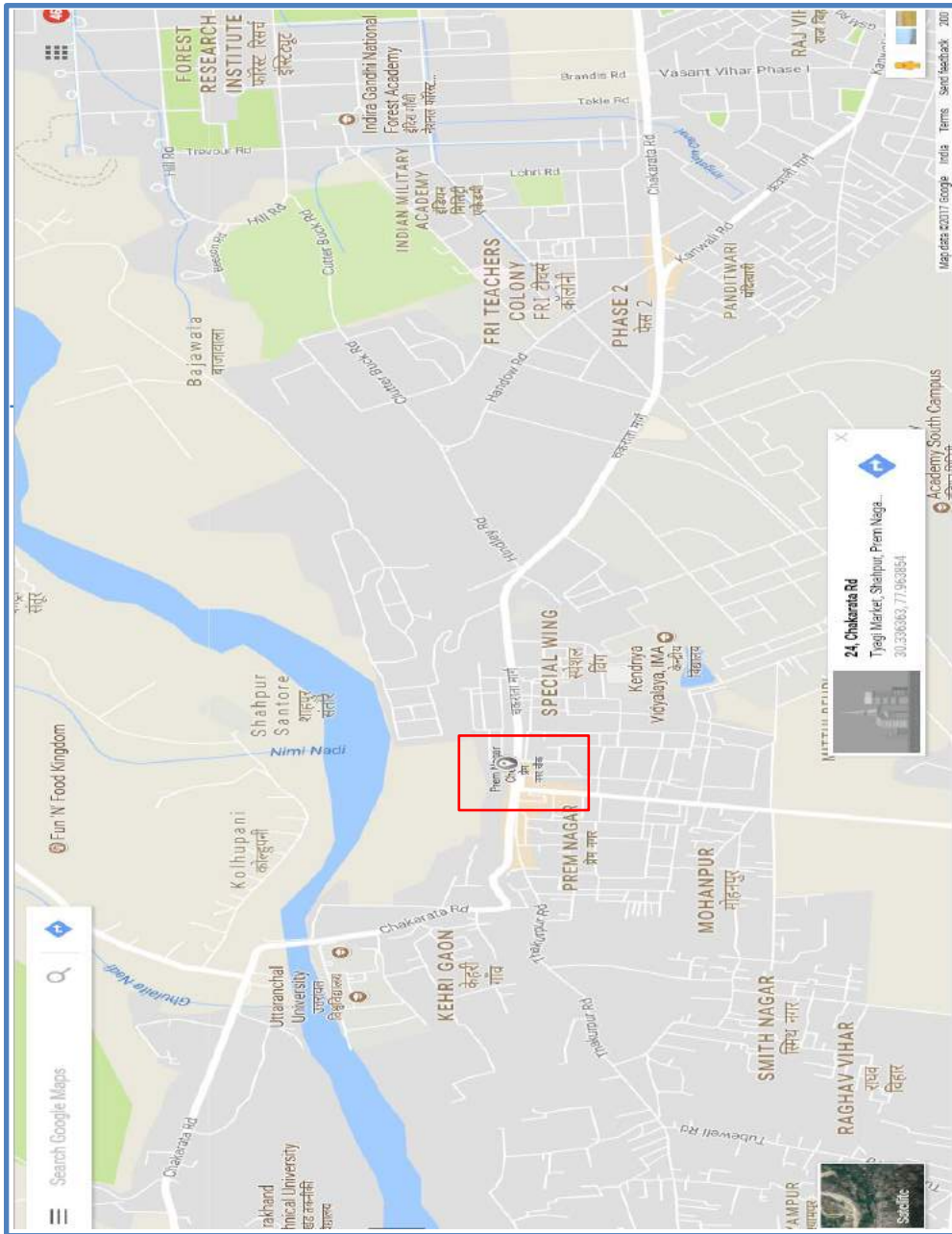


Google Map for Silk Park, Premnagar, Dehradun



Workshop Timing: 9.30 AM

UCB



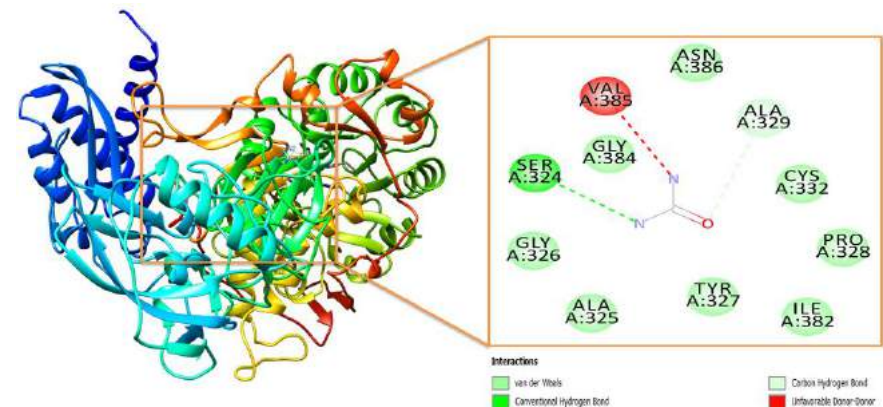
One Day Workshop on Bioinformatics: Emerging Challenges & Opportunities

Tuesday, 18th JULY, 2017

Organized by



Uttarakhand Council for Biotechnology
(UCB), Premnagar, Dehradun-248007,
Uttarakhand



About UCB

Initially known State Biotechnology Programme has now been restructured in the name of Uttarakhand Council for Biotechnology (UCB) since November 2014 under the then chairmanship of Dr. Harak Singh Rawat, Hon'ble Cabinet Minister, Department of Biotechnology, Govt. of Uttarakhand. This Council is an autonomous body of Govt. of Uttarakhand and is working under the guidance of apex governing body of UCB and functioning as "Nodal Agency" of Department of Biotechnology (DBT), Govt. of India, New Delhi for Biotechnology Education, Research and Development in the state of Uttarakhand.

One of the major concerns of the Uttarakhand Council for Biotechnology (UCB) is to create awareness on biotechnology packages for income generation and better healthcare in both urban and rural areas and disseminate the use of biotechnological processes and tool for creating new avenues of employment in rural areas, particularly for women and weaker section of the society. Training and demonstration in various areas such as Bioinformatics, Cash Crop Cultivation, Plant Tissue Culture, Biofertilizers, Bioenergy etc.. Would be taken up by the Uttarakhand Council for Biotechnology for raising socio-economic status and standard of living being in the state.



Course Background

Bioinformatics is a new emerging field that helps in collecting, linking, and manipulating different types of biological information to discover new biological insights. In short, bioinformatics is an information management system for Molecular Biology, Biotechnology, Medicine and Agriculture. The most pressing tasks in Bioinformatics involves the finding of genes in the DNA sequences of various organisms, developing methods to predict the structure and/or function of newly discovered proteins and structural RNA sequences, clustering protein sequences into families of related sequences, development of protein models, aligning similar proteins and generating phylogenetic trees to examine evolutionary relationships. The sequencing of the genomes of microbes, plants and animals should have enormous benefits for the agricultural community. Computational analysis of these sequence data generated by genome sequencing, proteomics and array-based technologies is critically important. Bioinformatics tools can be used to search for the genes, transcription factors and miRNAs within these genomes and to elucidate their functions. This specific genetic knowledge could then be used to produce stronger, more drought resistant, disease resistant, insect resistant and more productive crops. Keeping in view the changed scientific scenario in the post-genomic era and to expose the agricultural scientists to the latest computational biology tools for biological research.

Objective of Workshop

It comprises of basic and advanced study domains of Bioinformatics, which are expected to equip the Scientists with a complete practical and applied knowledge in the field of Modern Biotechnology.

Workshop Content

The main objective of this workshop is to train the participants in the use of different bioinformatics resources and tools related to research in the field of modern biotechnology. The main topics to be covered during the workshop are:

- Introduction to Bioinformatics
- Cloud Computing in Biology
- Plant Genomic Repositories
- Next Generation Sequencing (NGS)
- Transcriptome Profiling of Medicinal Plants
- Mining of Genes and Transcription Factors Associated With Different Important Traits
- Genomic Sequence Based Functional Annotations of Genes and Transcription Factors

The above topics will be extensively covered in the form of lectures and presentations delivered by the eminent experts of same area.

Eligibility/Qualification of Participants

Participants shall have at least Master's degree in any discipline of Life Sciences and have a working knowledge of computer applications.

Registration Fees

- There is no registration fees required to attend this workshop

Avenue  UCB, Silk Park, Premnagar-248007, Dehradun



Organizing Committee

Patron

Prof. (Dr.) M.K. Nautiyal,
Director, Uttarakhand Council for Biotechnology

Course Coordinator

Mr. Anuj Kumar,
Bioinformatician & Incharge
Advanced centre for computational & Applied Biotechnology, UCB, Dehradun

Supporting Members

Sri . PP Silori, (Supervisor), Bhauwala Campus, UCB, Dehradun
Mr. Sachin Sharma (Accountant, UCB); Sri. Mukesh Mohan Negi (Cleark, UCB); Mr. Manish Kumar (DEO, UCB)