Who can attend

- Executives, engineers and researchers from manufacturing, service and government organizations including R&D laboratories and Universities.
- Students at all levels (Bachelors, Masters, Doctoral) or Faculty from reputed academic and technical institutions as well as research centers/ institutes.

Venue of Workshop

Seminar Room, Academic Block - 1, UIET,
Panjab University, Chandigarh.

Registration Fee

The participation fees for taking the course is as follows:

Participants from abroad	: US $500
Industry/Research Organizations	: ₹10000/-
Academic Institutions	: ₹ 5000/-

The above fee includes all instructional materials, laboratory equipment usage charges, databases, software and 24 hr free internet facility. The participants will be provided with accommodation on payment basis.

Please contact course coordinators

Dr. Rakesh Tuli
Phone: 9915035511; 0172-2544107
E-mail: rtuli@pu.ac.in; rakeshtuli@hotmail.com

Dr. Mamta Juneja
Phone: 9878677624,
E-mail: mamtajuneja@pu.ac.in

Patron: Prof. Raj Kumar
Vice Chancellor, Panjab University, Chandigarh

Local Coordinator GIAN: Prof. S. K. Mehta
Director, SAIF/CIL, Panjab University, Chandigarh

Guest Faculty

Dr. Graham Roy Ball is Professor & Chair in Bioinformatics, School of Science & Technology, Nottingham Trent University, Nottingham, UK. He is Fellow of the Royal Society of Medicine and the Royal Society of Biology. He has special interest in the application of artificial neural networks to the modeling of plant and environmental systems. His work on the application of bio-informatic algorithms using ANN to the identification of biomarkers for human disease diagnostics, specially cancer and tuberculosis will be of special interest at the workshop. He is also Chief Scientific Officer of a company for strategic application of data mining, modeling and strategic development.

Host Faculty

Dr. Rakesh Tuli is national J C Bose Fellow and Sr Research Advisor at Panjab University, Chandigarh. He has been Director of research laboratories in CSIR and DBT. He is Fellow of all major science academies in India. He has applied nucleic acids sequence analytics extensively to analyzing promoter function and gene designing. His group has been one of the pioneers in India to design and chemically synthesise novel genes and promoters for targeted functions in plants. He has guided research on transcriptomics, differential pathway analytics and gene editing and is known for the development of insect resistant transgenic crop plants.

Dr. Kashmir Singh
Associate Professor
Department of Biotechnology
Panjab University
Chandigarh.

Dr Md. Ehesan Ali
Associate Professor
INST, Mohali

Dr. Mamta Juneja
Assistant Professor
Department of Computer Science Engg., UIET, PU, Chandigarh.

INTERNATIONAL WORKSHOP
on
GENOME INFORMATICS

(Data mining, systems biology, biomarker discovery, neural networks & protein modeling for functional analysis and designing of life forms)

An event under

GLOBAL INITIATIVE FOR ACADEMIC NETWORKS

October 03-08, 2018

Organized by
Panjab University, Chandigarh
under the aegis of

CRIKC

About GIAN

Global Initiative of Academic Networks (GIAN) is a new program approved by Govt. of India which is aimed at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform, exchange of scientific thoughts through collaborations and elevate India's scientific and technological capacity to global excellence.

Overview

Since the sequencing of the human genome, molecular techniques have grown into powerful technologies, with new approaches to study biology at genomic, epigenetic, proteomic and metabolomics levels. This has led to the generation of rapidly growing big data. Such data abodes the challenges of volume, resolution and complexity; plus the quality. Analysis of such data requires careful consideration, paying attention to the non-linearity and fluidity of biological systems, the interactions among molecular entities in pathways and the need for biological validation of the new entities, as these are discovered. These issues have never been fully addressed, nor have the data streams from multi-omics technologies integrated, utilising non-linear adaptive algorithms applied at systems biology level. As examples, molecular and bioinformatics techniques have been utilised in understanding and improving the structure and function of genes, promoters and life forms. These have been applied to develop new approaches to correct diseases and traits in life forms. Yet the science of bio-informatics faces big gaps in analysing the information hidden in complex biological data. This course will teach the applications of computational methods, algorhithms and neural networks for modeling systems in biology from the basics. It will include a broad basis of statistical methods, leading to robust algorithms for complex analytics of nucleic acids, protein and pathways.

About Chandigarh

Chandigarh is one of the most beautiful and well planned cities of India, designed by the French architect Le Corbusier. Serenity and a city are normally two diametrically opposite concepts, which however, get belied in the 'City Beautiful'. Chandigarh is a rare epitome of modernization co- existing with nature's preservation. The city is located near the foothills of the great mountains of Himalayas with the Queen of Hills, Shimla.

About Panjab University

Panjab University (PU) a public collegiate University, located in Chandigarh is one of the oldest Universities in India and established in 1882. University campus is spread over an area of 550 acres in sectors 14 and 25 of the city of Chandigarh. It is among the top ranked Universities of India. Panjab University has a long tradition of pursuing excellence in teaching and research in science and technology, humanities, social sciences, performing arts and sports. PU campus is also attracting and supporting the best minds and recruiting faculty who excel at teaching and research. University has 78 teaching and Research departments and 15 Centres/Chairs in the main campus. University has 188 affiliated colleges spread over Punjab. Gandhi Bhawan- one of the landmarks of 'city beautiful' is located at the university campus and has stunning architectural structure.

Accommodation

The participants may be provided accommodation at the University Guest Houses/ hostels on payment basis depending on the availability. Please send request for accommodation in advance along with travel plan.

Closing Date : September 25, 2018

REGISTRATION FORM

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

_____

Student ☐ **Faculty** ☐ **Male** ☐ **Female** ☐

Address :_____

_____

Phone/Mobile: ☐☐☐☐☐☐☐☐☐☐☐☐☐

Email : _____

Registration Fee:_____

Accommodation required : **Yes** ☐ **No** ☐

Accommodation required for number of days_____

Accommodation Fee :_____

Travel Plan: Arrival Date _____Time_____

Departure Date_____Time_____

Mode of payment: **Cash** ☐ **Demand Draft** ☐

DD No._____Amount_____

Accommodation on sharing basis will be available @ ₹ 500 per day at Panjab University Guest Houses.

Note: DD in favour of "Coordinator GIAN, Panjab University" payable at Chandigarh.

In case payment is made through NEFT/RTGS, follow the account details below:

Account Name
Prof. S.K. Mehta,
Coordinator GIAN,
Dept. of SAIF/CIL,
Panjab University,
Sector 14, Chandigarh.

A/c No. : 35643257128
IFSC Code : SBIN0000742
Bank Name : State Bank of India
Branch Name: Panjab University, Chandigarh

Signature with Date