

National Webinar on Bioinformatics Opportunities

Organized by Department of Bioinformatics, University of North Bengal,
West Bengal

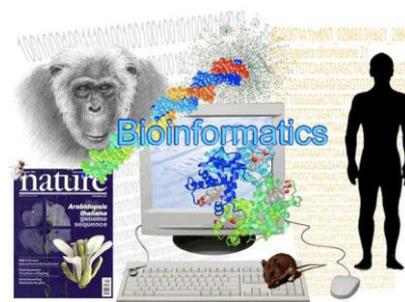
Date: July 24, 2021 (Saturday); 10.30 am to 2.00 pm

The objective of the webinar

This webinar aims to enrich the students and professionals with knowledge in the powerful emerging domains of Life Sciences and Computer Sciences-Bioinformatics. The webinar has a complete knowledge session on Bioinformatics opportunities in Academics, Research and Industry. Eminent academicians and renowned industrialists will cover the workshop.

What is Bioinformatics?

Bioinformatics is the field of science which solves the biological problem through information technology. Bioinformatics provides central, globally accessible databases that enable scientists to submit, search and analyze biological information. It offers analysis software for data studies and comparisons and provides tools for modelling, visualizing, exploring and interpreting biological data. The primary goal is to convert a multitude of complex data into useful information and knowledge.



About the University (<https://nbu.ac.in/>)

The University of North Bengal was established by an Act of the Legislature of West Bengal in 1962 with the mission “to encourage and provide for instruction for teaching, training and research in various branches of learning and course of study; to promote advancement and dissemination of knowledge and learning and to extend higher education to meet the growing needs of society”. It is recognized by the University Grants Commission under Section 2(f) and 12(B) of its Act and is accredited by the NAAC with Grade A.

The University of North Bengal is located in Raja Rammohunpur at Siliguri. It is the largest city in North Bengal and the second largest city of West Bengal at a latitude of 26°42′, and longitude is 88°41′. Siliguri is situated at the foothills of the Himalayan Mountain range in the plains. It connects the hill stations like Gangtok, Rangpo, Kalimpong, Kurseong, Mirik and Darjeeling with the rest of India, also known as Northeast India’s gateway. It is also the meeting point of four international borders of Nepal, China, Bangladesh and India.

The University of North Bengal campus covers an area of nearly 331 acres of land at the foothills of the high Himalayas in close proximity of vast plains around it with a fascinating glimpse of the Kanchenjunga peak, tea gardens and forest cover. The University of North Bengal

has gained 36.138 acres of land and has already started another campus at Danguajhar, Jalpaiguri, by the side of the campus of Jalpaiguri Government Engineering College for widening the dimension and scope of Higher Education and Research in one more Center for Higher Education through modern studies for spreading advancement of learning in various branches of Humanities, Science and Technology to reach the people of this region in a more significant way so that they can have better and easier access to Higher Education.

Since its inception in 1962, the University of North Bengal has been fulfilling the objectives of imparting higher education and research to the people of this socio-economically backward area of the country. It was the first University that earlier served predominantly rural areas in six districts: Darjeeling, Jalpaiguri, Cooch Behar, Maldah, Uttar Dinajpur and Dakshin Dinajpur. Not only students from Siliguri and its surrounding areas like Darjeeling, Cooch Behar, Jalpaiguri, North Dinajpur, South Dinajpur, Malda and the states of Sikkim choose this University for their study but also the students from neighboring areas like Bangladesh, Bhutan and Nepal also choose it as the way to get success. With the global advancement and increasing knowledge in society in the arena of higher education and research, the University has shouldered the responsibility of dissemination of knowledge by the judicious expansion of its role in advanced, non-conventional, applied and job-oriented fields, keeping the quality of education at par with global standards at low cost. The main motto of this University is “Enlightenment to Perfection” to improve individual lives and enrich wider society.

The University has taken initiatives in qualitative growth by way of achieving excellence. The Departments are well-equipped with research programs from various agencies and have received academic distinctions and recognitions.

About the Department (<https://nbu.ac.in/dept/bioinformatics.aspx>)

The NBU Bioinformatics Facility was established in November 2006 under the University of North Bengal with the initial grant from DBT (Department of Biotechnology, Govt. of India). The centre provides access to the faculty members, research scholars and students from nearby Universities, Colleges and Research Institutions interested in working in Bioinformatics and allied fields of Biology. Since then, the facility has received steady yearly funding from DBT, Govt. of India, for its functioning. The major part of the funding has been used in building IT infrastructure, including the purchase of hardware and software. Besides that, several National-level and regional workshops on Bioinformatics have been conducted by the centre. The centre has published many research publications in high impact peer-reviewed journals and successfully undertaken four research projects since its inception.

With steady progress being made by the Bioinformatics Facility and keeping the current infrastructure in mind, it has been felt that a Department of Bioinformatics can offer a Postgraduate diploma/MSc degree in Bioinformatics. Subsequently, after the joining of permanent faculty members, the full-fledged Department has been functioning since 2017. Currently, the Department is offering a one-year Postgraduate Diploma in Bioinformatics since 2018. Since the 2021-22 academic year, the Department is offering a two-year postgraduate

course (MSc) in Bioinformatics. The four-semester course offers an excellent opportunity for the students to learn about Bioinformatics. This emerging Interdisciplinary field is often considered a junction between biology and computational sciences. This is a first of its kind course in North Bengal. The primary vision of the Department is to impart quality education, practical based training and research experience in the emerging frontier of bioinformatics and allied areas.

About the MSc-Bioinformatics Course

Bioinformatics is an emerging branch in life science and computer sciences. Bioinformatics is information technology applied to the management and analysis of biological data with the aid of computers. It is a field in which biological information is collected, compared, studied, and analyzed to find the interrelation between them for solving structural, functional, and evolutionary problems using computational technologies. The biological information stored in various databases is available online through the internet. Bioinformatics refers to creating and developing databases, software, computational and statistical techniques, and theory to solve problems generated from the management and analysis of biological data. On the other hand, computational biology refers to the hypothesis-based investigation of a specific biological problem using computers, carried out with experimental or simulated data, with the primary goal of discovering and advancing biological knowledge. Bioinformatics solves the following problems and puts more emphasis on understanding the disease-related problems at the molecular level.

Objectives of the Course: This course is expected to benefit students of this University, strengthening ongoing university research in life sciences. The primary objectives of the course are:

- To build in candidates a sound foundation in interdisciplinary sciences such as Computer Sciences and Biological Sciences to develop accelerated and precise technologies for industrial problems and prepare them for productive careers in biotechnology, pharmaceutical, bioinformatics, research, and healthcare industries.
- Majorly to strengthening the research in bioinformatics and its allied area. Further, it will help create an advanced research facility to research frontiers in bioinformatics and related fields.
- To address the challenges arising from the enormous amount of genomic data and to overcome by analyzing and individualizing the corresponding drug responses towards drug specified dosages.

Important Date: Online Registration deadline is 23/07/2021, 06.00 PM IST.

Registration Link: <https://docs.google.com/forms>

Expected audience: Any Branch of BSc/BCA/Medical/Agriculture Students who like to choose Bioinformatics as a career path

Organizing Committee

Patron: **Dr. Subires Bhattacharyya**

Honorable Vice-Chancellor, University of North Bengal, West Bengal.

President: **Dr. Pranab Ghosh**

Registrar, University of North Bengal, West Bengal.

Guests of Honour: **Dr. Subhas Ch Roy**

Dean, Faculty of Science, University of North Bengal, West Bengal.

Webinar Chair: **Dr. Subarna Thakur**

Head, Dept. of Bioinformatics, University of North Bengal, West Bengal

Webinar Co-Chair: **Mr. Chiranjib Sarkar**

Assistant Professor, Dept. of Bioinformatics, University of North Bengal, West Bengal

Webinar Coordinator: **Dr. John J. George**

Associate Professor, Dept. of Bioinformatics, University of North Bengal, West Bengal

Invited Speakers

Prof B. Jayaram

Coordinator, Supercomputing Facility for Bioinformatics and Computational Biology & Coordinator, School of Biological Sciences, Indian Institute of Technology, New Delhi. India

Dr. Amit Das

Data Scientist

Novozymes South Asia Pvt. Ltd. Bangalore, India

Schedule: July 24, 2021 (Saturday)

Time	Invited Speakers	Topic
10.30 am-10.45 am	Inauguration	
10.45 am-11.45 am	Dr. John J. George	Bioinformatics: A holistic science
11.45 am-12.45 pm	Prof B. Jayaram	Bioinformatics Academic and Research Opportunities
12.45 pm-1.45 pm	Dr. Amit Das	Bioinformatics Industrial Opportunities
1.45 pm-2.00 pm	Valedictory and Feedback	

Contact for further details

Dr. Subarna Thakur

Head, Dept. of Bioinformatics, University of North Bengal,

Raja Rammohunpur, North Bengal University-PO

District-Darjeeling, West Bengal-734013

<https://nbu.ac.in/dept/bioinformatics.aspx>

Email ID: subarna.thakur@nbu.ac.in, Mobile No.: 94341 06590