

CALL FOR REGISTRATION & PARTICIPATION

Online-Live Learning FACULTY DEVELOPMENT PROGRAMME BIOINFORMATICS: TOOLS, TECHNIQUES & APPLICATIONS

22-27 August 2022

Organized by



ICT IN LIFE SCIENCES LAB

National Institute of Electronics and Information
Technology (NIELIT), Govt. of India-Guwahati
Assam, India

in collaboration with



BIOAKADEMY

The training unit of AGT Biosciences (OPC) Pvt. Ltd.
Recognized by MCA & MSME, Govt. of India.
Guwahati/Ahmedabad, India

&



DEPT. OF BOTANY, GAUHATI UNIVERSITY

Accredited with 'A' Grade by NAAC
Guwahati, Assam, India

NIELIT-GUWAHATI

National Institute of Electronics & Information Technology (NIELIT) is the HRD organization under the Ministry of Electronics & Information Technology (MeitY), Govt. of India involved in development/skilling of Human Resources in the areas of IECT. NIELIT has a PAN India presence of 47 Centres across the country and in Assam NIELIT Guwahati Centre is the regional centre currently located at Vittiya Bhavan, Assam Financial Corporation (AFC) Building, Md Shah Road, Paltanbazar, Guwahati-781008. NIELIT-Guwahati is imparting training in Bioinformatics to Graduate and Postgraduate students since 2003 and have been offering various courses on Computer Science and Information Technology.



BIOAKADEMY

Bioakademy is the training unit of AGT Biosciences (OPC) Private Limited, a Guwahati (India) based start-up company, which has its national office at Ahmedabad, India. The company is incorporated in the Ministry of Corporate Affairs, and recognised by The Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India. Established in the year 2021 the company's objective is creating a global standard organization which is fully committed to offer best services to academia and industry. With a team of skilled and experienced professionals, AGT Biosciences is providing the customised services on genomics & bioinformatics, data analysis, research writing, IPR and patent application. Bioakademy conducts regular short-term training/workshop in the field of biosciences, bioinformatics, biostatistics, research writing, IPR, and research project-based internship/training program. One can visit our site at www.agtbiosciences.com to know more and can reach us by mail to support@agtbiosciences.com.

GAUHATI UNIVERSITY

Gauhati University or also known as GU is the oldest university in North-East India. It is in Guwahati, Assam, India, established in the year 1948. The University is accredited grade 'A' by National Assessment and Accreditation Council. The National Institutional Ranking Framework (NIRF) 2022, ranked Gauhati University in the 64th position overall and 36th position amongst all Indian Universities. Gauhati University has 42 post-graduate departments, IDOL (Institute of Distance and Open Learning), a constituent college for Engineering and law. More than 350 colleges are affiliated to GU. The university offers more than 210 courses in science, social sciences, humanities (including law), management and technologies. It is also one of the most diversified universities in academics. The university begged the prestigious NSS Award for the year 2019-20, from the Honourable President of India.

ABOUT THE PROGRAMME

This Faculty Development Programme (FDP) is aiming to address the ever-increasing need for computational tools and techniques to answer complex biological questions. Bioinformatics is an interdisciplinary subject that involved developing methods and software tools for understanding the complex and large set of biological data to have meaningful insight. Bioinformatics now entails the creation of databases to store millions of primary, secondary, or tertiary data, and the development of tools to retrieve data as and when it is necessary. It also develops algorithms, computational and statistical techniques, and theory to solve formal and practical problems arising from the storage, management, and analysis of sequence and structural data of biomolecules. Considering the importance of bioinformatics, this programme is organized to provide an insight into basic tools, techniques, and their applications in various fields of biosciences from plant/animal sciences to medical & pharmaceutical sciences with hands-on-experiences.

MAJOR COURSE CONTENT

- **Introduction to bioinformatics**
- **Databases and data retrieval**
- **Sequence alignment & molecular phylogeny**
- **Translational bioinformatics**
- **Basics of NGS technologies & data analysis**
- **Structure based drug designing**
- **Survival-based bioinformatics analysis using R**

EXPECTED LEARNING OUTCOMES

The expected learning outcomes for the participants are the following:

- An understanding of bioinformatics tools and techniques and their applications
- Understanding of biological databases, data format and data retrieval
- Applications of computational tools to answer questions in evolutionary biology
- Understanding of Next Generation Sequencing technologies to answer biological questions
- Learning how the computational tools help in drug discovery and designing process
- Importance of statistical tools for biological data analysis

WHO CAN ATTEND?

The programme is open to faculties (regular/adhoc/temporary) in teaching profession and PhD/Research scholars from any College/University/Institutes working in the field of Biosciences, Biotechnology, Chemistry, Biostatistics, Computer & IT, Health Sciences, Pharmaceutical Sciences, or other allied disciplines. Industry personal working in the concerned/allied discipline can also attend.

REGISTRATION PROCESS & PAYMENT DETAILS

Those who are interested need to register online on or before **21 August 2022** by paying an enrolment fee of **INR 1500 (Inclusive of taxes)** (non-refundable). The participants must make the prescribed payment through NEFT/IMPS or other payment method in the following bank account. One can also pay by simply scanning the following QR code using any payment application like BharatPe, Paytm, PhonePe etc. International participants may request for a PayPal invoice of **\$25** (twenty-five dollar) at agtbiosciences@gmail.com.

Account Holder	AGT Biosciences (OPC) Private Limited
Bank Name	HDFC Bank
Branch	Rukmini Gaon Branch, Guwahati, India
IFSC Code	HDFC0000757
Account Number	50200060566594
Amount Payable	INR 1500 (Fifteen hundred rupees only) (Inclusive of taxes)



Participants need to fill up the online registration form AFTER the payment by visiting the following link or by scanning the QR code.

Register to participate

<https://nielit.gov.in/content/fdp-bioinformatics>



IMPORTANT POINTS

- Registration is mandatory for participation, and it is open to participants worldwide.
- This course content is as per the CBCS syllabi of undergraduate courses of Indian Universities.
- Interaction and discussion will be through Cisco WebEx, Google classroom and WhatsApp.
- The timings for each session will be 05:00 PM to 07:00 PM (Indian Standard Time) tentatively.
- The course hours will be for approx. 40 hours including live sessions, assignments, evaluation etc.
- Attempting and submitting all the assignments are mandatory, and each participant should score a minimum of 50% in total to avail of the programme completion certificate.
- The participant needs to complete the course with 80% of attendance to avail the certificate.
- As part of the Ministry of Education's requirement under the PMMMNMTT scheme, all participants need to submit online feedback for each session.
- The course is beneficial for the Career Advancement Scheme (CAS)
- After successful completion, participants will receive an **E-certificate**, presentation decks, downloading link for bioinformatics software, access to session recordings for 2 months.

INVITED SPEAKERS

Prof. (Dr.) Probodh Borah

Professor & Head
Dept. of Animal Biotechnology
Assam Agriculture University, India

Prof. (Dr.) Dibyojyoti Bhattacharjee

Professor & Head
Dept. of Statistics
Assam University, India

Prof. (Dr.) Arnab Sen

Professor
Dept. of Botany
University of North Bengal, Siliguri, India

Dr. Deepak Sharma

Assistant Professor
Dept. of Biosciences & Bioengineering
IIT-Roorkee, Uttarakhand, India

Dr. Soumyananda Chakroborti

Scientist-D (DBT) & Ramalingaswami Fellow
National Institute of Malaria Research
New Delhi, India

Dr. Pankaj Chetia

Assistant Professor
Department of Life Sciences
Dibrugarh University, Assam, India

Dr. Saurov Mahanta

Senior Technical Officer
NIELIT-Guwahati, Assam, India

ORGANIZING BOARD OF THE PROGRAMME

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Prof. M. M. Tripathi, Director General, NIELIT, Govt. of India

Patron

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Dr. Tapan Mondal, Principal Scientist, National Institute of Plant Biotechnology, New Delhi, India

Dr. Deepak Sharma, Assistant Professor, Dept. of Biosciences & Engineering, IIT-Roorkee, Uttarakhand, India

CONTACT US

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