



**ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)
ON
BIOINFORMATICS: ALGORITHMS, APPLICATIONS AND TOOLS**

(INTER-DISCIPLINARY)

(16th May – 25th May 2022)

Organized by

**E & ICT Academy, National Institute of Technology, Warangal
in association with**

University College of Engineering, BIT Campus

Anna University

Tiruchirappalli – 620 024



Preamble:

"Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy role is to offer faculty development programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

About the FDP:

This faculty development program (FDP) is devoted to address the need of technological developments in Bio technology and its allied fields. Bio-informatics is an interdisciplinary field that develops methods and software tools for understanding biological data, in particular when the data sets are large and complex. Bioinformatics now entails the creation and advancement of databases, algorithms, computational and statistical techniques, and theory to solve formal and practical problems arising from the management and analysis of biological data, particularly DNA, RNA, and protein sequences. This FDP is intended to provide an insight on Advanced Bioinformatics and its applications in various fields with hands-on Experience.

Eligibility:

The program is open to faculty of Engineering Colleges and other allied disciplines in India. Industry personnel working in the concerned or allied discipline can also attend.

Major Course Contents:

Introduction, DNA sequence analysis, DNA Databases. Protein structure and function, protein sequence databases, sequence alignment. PAM matrix, Global and local alignment, BLAST: features and scores. Multiple sequence alignment, Conservation score, phylogenetic trees. Protein sequence analysis, hydrophobicity profiles, non-redundant datasets. Protein secondary structures, Ramachandran plot, propensity, secondary structure prediction. Protein tertiary structure, Protein Data Bank, visualization tools, structural classification, contact maps. Protein structural analysis, protein structure prediction. Protein stability, energetic contributions, database, stabilizing residues, stability upon mutations. Protein folding rates, proteins interactions, binding site residues

Faculty conducting this program:

The program will be conducted in online mode by the faculty members from NIT Warangal in association with University College of Engineering (BIT Campus) Tiruchirappalli, Tamil Nadu – 620 024; Academicians in the concerned field from Indian Institute of Technology (IIT), National Institute of Technology (NIT), National Institute of Pharmaceutical Education and Research (NIPER), Institute of Bioinformatics and applied Bio technology (IBAB), Indian Council for Agricultural Research (ICAR) are invited to deliver lectures in the program. Speakers from industries are also expected to deliver as part of the course.

Registration Fee Particulars:

The fee is to be paid either in the form of DDs or online transfer using the following details:

Faculty and Research Scholars: Rs.750/-

Industry Participants: Rs.2250/-

Bank Account Details:

Account Name: Electronics & ICT Academy NITW

IFSC: SBIN0020149

Account No: 62423775910

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/jF1qauM5aTPZrfgg8>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 60 (sixty). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

About NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D programs in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

About UCE BIT Campus:

University College of Engineering, BIT Campus, Tiruchirappalli, has been established by the Government of Tamil Nadu as a 'Technical Institution' at Tiruchirappalli. It offers higher education and research in engineering, technology, management and science. The BIT institution is one of the constituent college of Anna University, Chennai.

Registration Form:

1. Name:
2. Designation:
3. Institution:
4. Email:
5. Mobile No:
6. Payment Details:
7. Address for correspondence:
8. Educational qualification:
9. Subjects taught for:
10. No. of refresher Course/ workshops attended:
11. Experience in years
Teaching: Research: Industry:
12. Do you belong to

SC ST

Declaration:

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Date:

Signature of the Applicant

Sponsorship Certificate

Dr. /Mr. /Ms.....
is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on "Bio-informatics: Algorithms, Applications and Tools" (Inter-disciplinary), sponsored by Electronics & ICT Academy during 16th May – 25th May, 2022.

Signature of Head of Institution
(with seal)

Registration:

It is requested to all the delegates, after completion of the application form, all the payment details, a Screenshot of the payment, and scanned application form has to be uploaded in the following online registration link.

Online registration link:

<https://forms.gle/jF1qauM5aTPZrfgg8>

For more details about Electronics & ICT Academy, NIT, Warangal, please visit:

<https://nitw.ac.in/eict>

For more enquiries please contact:

annapoorani@aubit.edu.in,

umamaheswari@aubit.edu.in

Important dates:

Last date for submission of
Application : 14/05/2022
Selection by e-mail : 15/05/2022
Duration : 16/05/2022
To
25/05/2022

Address for Correspondence:

Dr.G.Annapoorani, M.Tech., Ph.D

Head of the Department

Department of CSE & IT
University College of Engineering

BIT Campus

Anna University

Tiruchirappalli – 620 024

Tamilnadu

e-mail: annapoorani@aubit.edu.in

Mobile: 9942320137

Organizing Committee:

Chief Patron

Dr. R. Velraj

Hon'ble Vice Chancellor

Anna University, Chennai.

Patrons

Dr. G. Ravikumar

Registrar i/c

Anna University, Chennai.

Dr. P. Hariharan

Director

Centre for Constituent Colleges

Anna University, Chennai.

Dr. P. Vanaja Rajan

Director, CFD

Anna University, Chennai.

Dr. V. Adaikkalam

Additional Director, CFD

Anna University, Chennai

Chair

Dr. T. Senthilkumar

Dean

UCE, BIT Campus

Tiruchirappalli – 620 024

Coordinators

Dr. G. Annapoorani

Head of the Department

Department of CSE & IT

University College of Engineering

BIT Campus

Anna University

Tiruchirappalli – 620 024

Tamilnadu

e-mail: annapoorani@aubit.edu.in

Dr. K. Uma Maheswari

Assistant Professor

Department of CSE & IT

University College of Engineering

BIT Campus

Anna University

Tiruchirappalli – 620 024

Tamilnadu

e-mail: umamaheswari@aubit.edu.in