



NATIONAL INSTITUTE OF TECHNOLOGY  
WARANGAL

Warangal - 506 004, Telangana

TEACHING LEARNING CENTRE

(A Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching)



*A Five-Day Online Faculty Development  
Programme on*

**“Effective Teaching and Learning  
Practices in Computational biology”**

**15<sup>th</sup> – 19<sup>th</sup> March 2021**

**Call for Registration and Participation**

**Coordinators**

**Dr. Perugu Shyam  
Dr. Anbumathi P**

**Organized by the  
DEPARTMENT OF BIOTECHNOLOGY  
In Association with the  
TEACHING LEARNING CENTRE**

*Established under the Scheme of PMMMNMTT,  
Ministry of Education, Govt. of India*



### Overview of the FDP:

Computational biology is a highly interdisciplinary domain of Biotechnology which is utilized to make sense of large biological and medical data accumulated by various Experimental Advancements, Advanced High throughput experiments such as NGS, etc.. Past two decades have witnessed enormous accumulation of data which relatively new. Development, applications of algorithms and models are essential to understand various types of data to gain deeper conceptual insights of biological phenomena. This FDP aims to bring out effective teaching and learning practices of Computation Biology for various applications.

### Objectives of the FDP:

- To provide a platform to discuss the technological advancements in Computational Biology, Bioinformatics, Systems Biology etc.
- Create domain expertise on various computational methods and tools
- To investigate theoretical and practical aspects of quantitative and qualitative biology
- Curation of biological data from databases
- Effectively analyze problems and identify solutions for biological data
- Equip with computational biology, bioinformatics and Systems biology techniques utilized in teaching practices
- Apply advanced computational techniques to solve various biological problems

### Topics to be covered:

- Technological developments in Computational Biology
- Sequencing methods & Heuristics approaches
- Next Generation Sequencing (NGS) and analysis of data
- Phylogenetic and evolutionary methods
- Biological Databases searching and retrieval of primary and secondary data
- Classification and Clustering, Predictive analysis, Medical data processing, analysis and feature selection
- Analysis of Polymorphism data in CoVID19 studies
- Molecular Docking and dynamics
- Computational Systems Biology

### Resource Persons:

Eminent Faculty from IITs, NITs, Central Universities, Teaching Learning Centres and Senior Faculty from NIT Warangal.

### Mode of Delivery:

Resource Persons will deliver the online lectures and hands-on sessions through, Google-Meet platform. The essence of the FDP is to improve the teaching ability of the teachers and enabling the learners to learn. The theme of the FDP is a way in building capacity of making better teachers. Lectures can be presentation mode, Discussions and hands-on sessions. Ultimate goal of the FDP is to develop the faculty members in the new pedagogy and emerging areas of science and technology.

### Registration is open to:

The program is open to all NBA and AICTE approved Engineering/Polytechnic college teachers, Degree college lecturers, research scholars and P.G. students. The number of participants is approximately

### How to Register:

Eligible candidates may apply by filling the following Google form by uploading payment proof on or before **10<sup>th</sup> March 2021**.

<https://forms.gle/tgivQ7jrQ3i3DM4A>

**Note:** Keep the payment receipt ready as a PDF file (size < 1 MB)

### Registration Fee:

Category of Participants	5-Day Reg. Fee
Faculty Members	600/-
Research Scholars	300/-

### Bank Details:

Registration Fee may be remitted through NEFT to the Bank account given below. Proof of remittance of the requisite registration fee (with transaction number if online transaction) shall be uploaded in the Google Form.

Account Name	Director, Research Account, NITW
Account Number	62266262236
Bank	State Bank of India (SBI)
Branch	NIT Warangal Campus
IFSC code	SBIN0020149

### Confirmation of Participation:

On receipt of the Google Form and Fee Remittance Receipt, participants will be sent confirmation of their participation through email by **11<sup>th</sup> March 2021**. As the programme is conducted online with the number of participants in the workshop is limited to 100. Candidates are advised to register early to avoid disappointment.

### Brief profile of the Department:

The Department of Biotechnology was established in the year 2006 with B. Tech in Biotechnology. In the current academic year 2020-21 M. Tech in Biotechnology was initiated. The Department also offers doctoral program in Biotechnology. The Department has a team of well experienced faculty, graduated from IIT's, NIT's, Central Universities and other premier Institutes of higher learning with various domain expertise. The department has sophisticated instruments and softwares to carry out research in various domains of biotechnology and computation biology.

### Teaching Learning Centre of NIT Warangal:

The Teaching Learning Centre (TLC) has been established at NIT Warangal with grants from the MHRD, through its scheme "**Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)**". Under this Scheme, a separate building has been built exclusively for the TLC activities, with the state-of-art training facilities that include a studio for production and uploading of video and e-lectures on various subjects of higher education, training halls to train the faculty in various theme areas of Science and Technology, humanities and social sciences, linguistics and communication skills, pedagogy and cognition evaluation, etc. among others. Many senior and young faculty are associated with this Centre as Core-Team. One of the important objectives of the Centre is to conduct training programmes for the aspiring, newly inducted and in-service faculty in science, engineering, social sciences disciplines in higher education. Other activities of the TLC include preparation of print and e-learning materials, offering on-line courses, curriculum design, carrying out research in educational technology and pedagogy and integrating with ICT into teaching-learning process. The TLC has special programmes of training for the marginalized and women-faculty.

### About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 31 post-graduate programs besides doctoral programs. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art library, seminar halls, guest houses and research laboratories.

**For any queries regarding the FDP, please contact the Programme Coordinators:**

**Name of the FDP Coordinator, Designation, Contact details, Email ID**

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**For further details about Teaching Learning Centre, please contact:**

**Prof. A. Ramachandraiah**

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