MALAVIYA MISSION TEACHER TRAINING PROGRAMME

शिक्षा मंत्रालय
MINISTRY OF EDUCATION

सत्यमेव जयते

ज्ञान-विज्ञान विमुक्तये

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

An Institute of National Importance

MALAVIYA MISSION TEACHER TRAINING CENTRE

Established under the Scheme of MMTTP, University Grants Commission (UGC), Ministry of Education, Government of India

One-Week (Residential) Short Term Training Program on

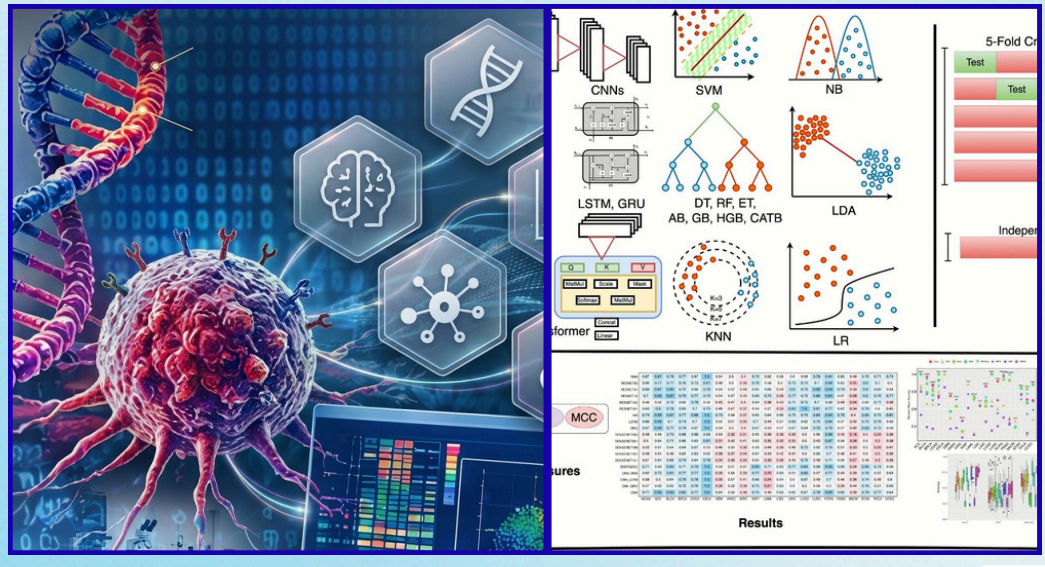
Computational Cancer Genomics and Data Analysis

02 - 07 November, 2026

Program Overview:

Cancer research is rapidly evolving through the integration of genomics, bioinformatics, artificial intelligence, machine learning, and precision medicine. This workshop is designed to bring together faculty members, research scholars, postgraduate students, and interdisciplinary researchers to explore how computational approaches can transform cancer research, biomarker discovery, and therapeutic development. The programme will provide a comprehensive introduction to computational cancer genomics, including the analysis of publicly available cancer datasets, differential gene expression, genomic alterations, pathway enrichment, protein–protein interaction networks, and clinical survival analysis. A major focus will be on AI/ML-driven cancer biomarker discovery, multi-omics data integration, cancer subtype classification, and the identification of novel therapeutic targets. Advanced sessions will introduce computational drug discovery, drug repurposing, molecular docking, and the integration of genomic insights with structural bioinformatics.

Through expert lectures, demonstrations, and hands-on computational sessions, participants will learn how to formulate research questions, analyse cancer datasets, interpret biological significance, generate publication-quality visualizations, and develop reproducible computational research workflows. Faculty members, scientists, postdoctoral researchers, PhD scholars, postgraduate students, and research professionals working in biotechnology, bioinformatics, computational biology, cancer biology, life sciences, artificial intelligence, machine learning, biomedical sciences, and drug discovery.



Scan the QR code to Register

Last date for Registration: 29-10-2026

NO REGISTRATION FEE

Content of the STTP Program:

This workshop useful to biotechnology, bioinformatics, computational biology, computer science, and biomedical research participants. Prioritize public cancer datasets, differential gene expression, pathway/network analysis, survival analysis, and AI/ML. Include multi-omics and computational drug discovery as advanced modules.

- Module 1 – Cancer Genomics: Fundamentals and Molecular Mechanismsn.
- Module 2 – Cancer Data Mining Using Public Databases.
- Module 3 – Cancer Pathway and Network Analysis
- Module 4 – RNA-seq and Differential Gene Expression Analysis.
- Module 5 – Advanced Genomics and Multi-Omics Integration
- Module 6 – Test: Gathering user feedback on prototype to iterate and refine solutions.
- Experiential Team Project: Hands-on, design sprint in collaborative faculty teams.
- Assessment & Evaluation: Modern rubrics to evaluate higher-order learning without traditional exams.
- Institutional Implementation: Strategies and roadmaps to launch the course at your home college.

Resource Persons for this program:

Faculty from NIT Warangal and other IITs/NITs and Industries involved in Design Thinking will be resource persons to deliver lectures in the program.

Course duration:

There will be 6 days (36 hours) of engagement, including live sessions, practical sessions, and related activities.

Certification criteria:

The participants must maintain complete Attendance, need to submit Assignments in time. Candidates will be issued certificates on successful completion of the course.

Who can apply ?

Selection will be done based on first-come-first-served to a maximum number of 50 Faculty. PhD scholars are eligible, but preference will be given to faculty. The list of selected participants will be intimated through email. There is **No Registration Fee** to attend this program.

Selection Criteria:

Selection will be done based on first-come-first-serve to a maximum number of 50 participants. The list of selected participants will be intimated through e-mail. There is **No Registration Fee** to attend this program.

Accommodation:

Accommodation can be provided at the Institute Visitor's Block for a maximum of 20 participants from the programme, on a first-come, first-served basis. Over and above this, accommodation will be provided at the Institute Outreach Centre (NITW).
For further details, please contact 0870-2462686.

Note: This Programme shall be considered equivalent to One Week FDP/STP for regularization/ CAS.

About MMTTC of NIT Warangal:

The Malaviya Mission Teacher Training Centre (MMTTC) was established at NIT Warangal in the year 2016 under the scheme *"Malaviya Mission on Teacher Training Program (MMTTP)"* sponsored by the University Grants Commission (UGC), Ministry of Education, Government of India. Since its inception, the Centre has successfully organized various programmes such as *NEP Orientation programs, Short-term programs, Refresher Courses, FDP programmes* and one-month duration *Faculty Induction Programme (FIP)* for Higher Education Faculty in various theme areas of Science and Technology, Humanities and Social Sciences from which more than 10,000 participants have benefitted. Other activities of the MMTTC include offering online courses on curriculum design, carrying out research in educational technology and pedagogy and integrating ICT into the Teaching-Learning process. The MMTTC NIT Warangal has been conducting various programs, online and offline following MMTTP Guidelines and UGC Regulations.

How to Apply? :

Interested participants are required to register by using the online form, link provided below, on or before Last Date. There is **NO REGISTRATION FEE.** It is mandatory to submit the **Nomination Form** from your organization to consider your application.

Registration link: https://mmc.ugc.ac.in/registration/Index

or through Google Form: https://forms.gle/j2AS3XSbWjCPtj8K9

Important Dates:

Last Date of Application: 29 October, 2026

Intimation of acceptance of nomination: 30 October, 2026

Program Coordinator

Prof. Perugu Shyam
Associate Professor
Department of Biotechnology
Email: shyamperugu@nitw.ac.in
Phone: 9948561761

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NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Prof. M. Sailaja Kumari
Coordinator, UGC-MMTTC &
Head, Centre for Teaching and Learning
NIT Warangal

For Queries, Contact: Office: 0870-2462686
Email: ctl_hod@nitw.ac.in; tlc@nitw.ac.in
Website: www.nitw.ac.in/ctlcenter