MALAVIYA MISSION TEACHER TRAINING PROGRAMME

शिक्षा मंत्रालय
MINISTRY OF EDUCATION
सत्यमेव जयते

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

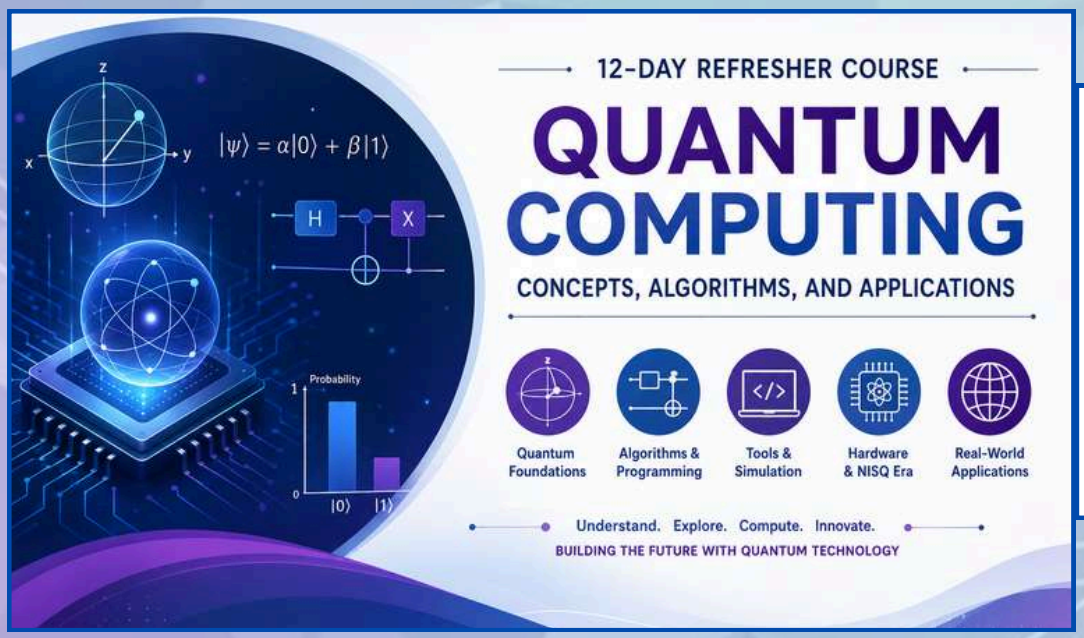
12-Day Online Refresher Course on

Quantum Computing: Concepts, Algorithms, and Applications

27 August - 9 September 2026

Course Description:

The Refresher Course on Quantum Computing: Concepts, Algorithms, and Applications is designed to provide participants with a comprehensive understanding of the fundamental principles and emerging paradigms of quantum computing. The program introduces the core concepts of quantum mechanics relevant to computation, quantum information processing, quantum circuits, and quantum algorithms, while highlighting their significance in solving computationally challenging problems. Through an interdisciplinary approach, participants from diverse disciplines will gain conceptual clarity, practical insights into quantum programming frameworks, and an appreciation of the transformative potential of quantum technologies across domains such as artificial intelligence, cybersecurity, optimization, healthcare, and scientific computing. The course aims to equip faculty members and professionals with the knowledge and skills necessary to integrate quantum computing concepts into teaching, research, innovation, and next-generation technological applications.



Scan the QR code to Register

Last date for Registration: 21-August-2026

NO REGISTRATION FEE

Course Content

- Fundamentals of Quantum Computing and Quantum Information
- Mathematical Foundations for Quantum Computation
- Quantum Bits (Qubits), Quantum Gates, and Quantum Circuits
- Quantum Algorithms and Computational Complexity
- Quantum Programming Frameworks and Software Tools
- Quantum Machine Learning and Artificial Intelligence
- Quantum Communication and Quantum Cryptography
- Quantum Error Correction and Fault-Tolerant Computing
- Quantum Hardware, Architectures, and Cloud-Based Quantum Computing
- Applications of Quantum Computing in Science, Engineering, Healthcare, and Finance
- Emerging Trends, Research Challenges, and Future Directions in Quantum Technologies

Resource Persons for this Program

Academicians in the concerned field from IITs, NITs and Industry Experts will be invited to deliver lectures in the program. Other renowned experts will also be invited to deliver lectures.

Course Duration

There will be 12 days (72 hours) of online engagement, including live sessions, Hands-on sessions, assignments, and exposure to the latest tools and techniques.

Certification Criteria

As per the norms of the UGC-MMTTC, the participants must maintain 80% of Attendance. Candidates will be issued certificates on successful completion of the course after going throuh a mandatory test.

Who can Apply ?

Faculty members of Central, State, Deemed to be Universities, Private Universities, Institutions of National Importance, Colleges and other HEIs; Contractual, Ad-hoc, Guest faculty Teachers and Research Scholars (Ph.D. level) in HEIs, and People working in Biotech&Pharmaceutical industries are eligible.

Selection Criteria

Selection will be done based on first-come first-served to a maximum number of 100 participants. PhD scholars are allowed to participate. The list of selected participants will be intimated through e-mail. There is **No Registration Fee** to attend this program.

This Program shall be considered for regularization/ Career Advancement Scheme (CAS).

About MMTTC of NIT Warangal

The Malaviya Mission Teacher Training Centre (MMTTC) was established at NIT Warangal in the year 2015 under the scheme "Malaviya Mission on Teacher Training Programme (MMTTP)" sponsored by the University Grants Commission (UGC), Ministry of Education, Government of India. Since its inception, the Centre has successfully organized various programs in the form of NEP Orientation programs, Short-term programs, Refresher Courses, FDP programs and one-month duration Faculty Induction Program (FIP) for Higher Education Faculty in various theme areas of Science and Technology, Humanities and Social Sciences from which more than 8000 participants have benefitted. Other activities of the MMTTC include offering online courses, 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/kZBXV7pt6aw2mEZ98

Program Coordinators

Prof. Earnest Paul Ijjina
Assistant Professor, Department of Computer Science and Engineering
Email: iep@nitw.ac.in

Prof. Srikanth Korla
Professor, Department of Mechanical Engineering
Email: korla@nitw.ac.in

Prof. Y Sreenivasarao
Associate Professor, Department of Mathematics
Email: ysr@nitw.ac.in, Mobile: 9494776866

Important Dates:

Last Date of Registration: 21 August 2026

Intimation of Selection: 24 August 2026

MALAVIYA MISSION TEACHER TRAINING CENTRE

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