

## TARGET AUDIENCE

Faculty members, Ph.D. Scholars, UG and PG Students are eligible to participate.

## RESOURCE PERSONS



Dr. Manjula Gandhi S,  
Associate Professor,  
Coimbatore Institute of  
Technology, Coimbatore



Dr. Gayathri Devi S,  
Associate Professor,  
Coimbatore Institute of  
Technology, Coimbatore



Mr. Sivasubramanian  
Bagavathiappan,  
Co-Founder, Guha Tek,  
Coimbatore

## REGISTRATION PROCESS

- Registration fee is Rs.250/- for UG, PG Students & Ph.D. Scholars and Rs.500/- for Faculty members and Research Scholars. (including 18% GST)
- Registration URL:  
<https://forms.gle/CjjMBEyCKKTyziuQ8>

## IMPORTANT DATES

- **Last date for registration: 15.03.2025**
- Confirmation of participation will be intimated to the selected participants on or before 16.03.2025 through e-mail.

## ORGANIZING COMMITTEE

### Chief Patron:

Dr. M. Manickam

Chairman, NIA Educational Institutions

### Patron:

Shri.M.Hari Hara Sudhan

Correspondent, NIA Educational Institutions

### Deputy patron(s):

Dr. C. Ramaswamy

Secretary, NIA Educational Institutions.

Dr. S. V. Subramaniam

Joint Secretary, NIA Educational Institutions

### Chairman:

Dr. P. Govindasamy

Principal, Dr. MCET

Dr. A. Senthilkumar

Vice Principal, Dr. MCET

### Co-Chairman:

Dr. S. Ramakrishnan,

Dean R&I, Dr. MCET

### Convenor

Dr. D. Sivaganesan

Professor & Head – CSE

Dr. A. Noble Mary Juliet, Assoc Prof. / CSE

### Organizing Secretaries

Ms. N. Sumathi, AP (SS) / CSE

Ms. S. C. Lavanya, AP (SS) / CSE

## ADDRESS FOR COMMUNICATION

### Ms. N. Sumathi

Assistant Professor (SS) / CSE

**Email id:** [sumathi.nataraj@gmail.com](mailto:sumathi.nataraj@gmail.com)

**Mobile:** +91 9865370076, +918825989425



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Organizes

Two Day Workshop

On

“Quantum Computing in Future”

20.03.2025 - 21.03.2025



### Dr. Mahalingam College of Engineering and Technology

(An Autonomous Institution,  
Accredited by NBA & NAAC)

Udumalai Road, M.K. Patti (P.O)

Pollachi - 642 003, Tamil Nadu

Phone: +91 4259 236030 / 40 / 50

Fax: 04259 - 236070





## ABOUT THE COLLEGE

Dr.Mahalingam College of Engineering and Technology (MCET) was established in the year 1998 by Dr. M. Manickam with a view to commemorate the 75<sup>th</sup> birthday of his beloved father Arutchelvar Dr. N.Mahalingam with a mission to impart high quality competency-based education in Engineering & Technology to the younger generation to acquire the required skills and abilities to face the challenging needs of the industry around the globe. MCET is a self-financing, co-educational Autonomous Engineering College and it is approved by All India Council for Technical Education (AICTE), New Delhi & affiliated to Anna University, Chennai. The Institution has been accredited by NAAC with A++ grade in Cycle III till 2030 the highest grade and all eligible UG Programmes are accredited by NBA. MCET currently offers 12 UG, 6 PG and 7 Doctoral Programmes in Engineering, Technology and Science.

## ABOUT THE DEPARTMENT

The Department of CSE was established in the year 1998. It is accredited by National Board of Accreditation. The department offers 4 years Bachelor of Engineering programme with an annual intake of 180 students and Master of Computer Science and Engineering course with an annual intake of 12 students. The department has well qualified and committed faculty members.

## ABOUT THE DEPARTMENT

The department is recognized as research center for offering Ph.D. /M.S (by research) programmes and focuses on research activities in the areas of Data Science, Networks and Security, Artificial Intelligence, Machine Learning and Deep Learning. The department has well-equipped laboratories with state-of-art computing facilities in specialized areas like IoT, Cloud, Data Analytics, Machine Learning, Internet & Mobility.

All the computers are connected internally with fiber optic cable network with 300 Mbps Internet. The courses related to AWS Academy, Oracle Workforce Development Program, Cisco Networking Academy Program and Red Hat are offered in association with respective Industries.

## ABOUT THE PROGRAM

Quantum computing is a cutting-edge field of computing that leverages the principles of quantum mechanics to process information in fundamentally different ways than classical computers. This workshop provides opportunity to learn the following:

- Understand Quantum mechanics which is the branch of physics that deals with the behavior of matter and energy at extremely small scales.
- Understand about Quantum Information which is a rapidly developing field that combines the principles of quantum mechanics with information theory.

- Exploring Qiskit which provides tools for creating, simulating, and running quantum circuits on real quantum hardware and simulators.
- Learn to design and simulate quantum circuits to solve real-world problems using quantum algorithms
- Explore how quantum cryptography is being implemented today and its potential future applications in securing data transmission over the internet.
- Discover how quantum computers can work alongside classical computers to solve problems in areas like data analysis, optimization, and pattern recognition
- Hands-on experience using real quantum processors via AWS Braket, and how to choose the best hardware for different types of quantum experiments.

## COURSE CONTENTS

- Working with Quantum Gates
- Hands on session using IBM Qiskit
- Quantum Entanglement
- Quantum Teleportation
- Circuit Quantum Computing
- Quantum Cryptography
- Quantum Machine Learning
- Quantum Computing in AWS