

SHAPING INNOVATORS, EMPOWERING CHANGE



# **Contact Us**



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# **Corporate Training Program On** Quantum Computing Technology

**POWERED BY MAHA FUTURE TECH HUB AT MAHALAKSHMI TECH CAMPUS** 

Patron Sri.R.Ravi

Chairman

Mahalakshmi Group of Institutions

**Duration**: 7 Weeks

Mode: Online (Mon-Fri, 3 Hours/Day)

**Starting from** :18.08.2025

For Academicians, Students and self-employed special concessions will be given

#### STEP INTO THE QUANTUM ERA

Welcome to an elite industry-aligned Corporate Training Program brought to you by Maha Future Tech Hub of Mahalakshmi Tech Campus a pioneering initiative to nurture next-gen tech talent in India.





This 7-week intensive course on Corporate Training Program Quantum Computing Technology is crafted for IT professionals, researchers, and Decision-makers who are ready to lead in the next technological revolution. Get hands-on training from domain experts and explore quantum computing from theory to advanced implementation.

# Why Quantum Computing?

Quantum computing is more than the future. It's the frontier of solving problems that classical computers can't. It leverage the principles of quantum mechanics to process vast amounts of information simultaneously, transforming fields like:

- Pharmaceuticals (drug discovery at molecular levels)
- Finance (faster risk modeling and fraud detection)
- Cybersecurity (quantum encryption and key distribution)
- Artificial Intelligence (quantum-enhanced learning models)

As global tech giants and research institutes invest heavily in this space, upskilling in quantum technologies today opens unmatched opportunities tomorrow.

## **Program Highlights**

Expert-Led Live Sessions

Learn from researchers and practitioners in quantum computing.

Hands-On Project Work Every Week

Apply your learning through 7 structured mini-projects + final capstone.

Cutting-Edge Tools & Platforms

Work on real platforms: IBM Qiskit, Microsoft QDK, Amazon Braket & more.

Career-Focused Learning

Suitable for teams in AI, cybersecurity, data science, and R&D.

Certificate of Excellence

Earn a recognized certificate from Mahalakshmi Tech Campus.







# **Program Structure & Weekly Plan**

#### **Week 1: Foundations of Quantum Computing**

- Introduction to Quantum Computing
- Overview of Current Quantum Hardware
- Quantum Cloud Platforms (IBM, AWS, Azure)
- Programming Environments & Getting Started

#### Week 2: Quantum Programming & Circuit Design

- Quantum Operations & Logic Gates
- Circuit Construction & Visualization
- Simulation Tools (Qiskit, PennyLane, Cirq etc.)
- Mini Project: Circuit Implementation

#### Week 3: Quantum Algorithm Design Strategies

- Intro to Quantum Algorithms
- Amplitude Amplification & Fourier Transform
- Phase Estimation Method
- Mini Project: Algorithm Design Strategy

#### **Week 4: Quantum Algorithms and Implementations**

- Deutsch Algorithm & Deutsch-Jozsa Algorithm
- Bernstein-Vazirani & Simon's Algorithm
- Grover's Search & Shor's Factoring
- Mini Project: Algorithm Implementation

## **Week 5: Quantum-Based Machine Intelligence**

- Quantum Machine & Deep Learning Concepts
- Data Encoding & Hybrid Quantum Models
- Quantum Feature Maps & Optimization
- Mini Project: Hybrid Classifier Design







### Week 6: Quantum Communication & Cryptology

- Quantum Teleportation & Superdense Coding
- Quantum Key Distribution (QKD) Protocols
- Post-Quantum Cryptography & Threat Analysis
- Mini Project: QKD Protocol Simulation

## Week 7: Final Capstone & Real-World Applications

- End-to-End Quantum Algorithm Implementation
- Real-World Use Cases & Case Studies
- Team-Based Capstone Project
- Presentations, Peer Review, & Expert Feedback
- Certification Ceremony

#### Who Should Enroll?

- IT Professionals & Tech Leads
- Corporate R&D Teams
- AI, ML, and Cybersecurity Engineers
- Government & Academic Researchers
- CTOs, CIOs, and Strategic Planners

# About Maha Future Tech Hub @ Mahalakshmi Tech Campus

Maha Future Tech Hub, an initiative of Mahalakshmi Tech Campus, is committed to Shaping the tech leaders of tomorrow by offering advanced, industry-relevant Programs in Al, quantum computing, blockchain, and cybersecurity. With cutting-edge Labs, global academic collaborations, and a strong corporate training ecosystem, the Campus is positioned as a beacon for future technologies in India.





# **Program Architects**



Dr. Srinivas Gumparthi **Program Director** Dean -Strategic Planning

Maha Future Tech



Sri. R. Ghuhar Director Maha Future Tech Hub

# **Program Advisors**

#### Dr. Kapil Kumar Soni

Assistant Professor Department of Information Technology National Institute of Technology Raipur

#### Dr. P. Venkata Subba Reddy

Associate Professor Department of Computer Science and Engineering National Institute of Technology Warangal

**Visit us at**: www.mahalakshmitechcampus.com

Location: Mahalakshmi Tech Campus, Chromepet, Chennai 600044

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Call: +9444104060

#### **Registration Details**

- Fee: Rs.50000 per participant ( Avail early registration incentives)
- Mode: 100% Online (Live Sessions)
- Limited Seats Early registration is highly recommended.

## Registrations Now Open! Secure Your Seat in **India's Premier Quantum Training Program.**

## Next Steps

Ready to Join? Contact us for registration assistance or Corporate group enrollment.

Want a brochure copy or invoice? We'll send it your way! Lead the Future. Learn Quantum Now.

#### **Powered by**

Maha Future Tech Hub of Mahalakshmi Tech Campus

