

2nd International Conference on Next-Gen Quantum and Advanced Computing: Algorithms, Security, and Beyond (NQComp-2027)



January 21st-23rd, 2027

Organized by

School of Computer Engineering
Manipal Institute of Technology, Bengaluru
Manipal Academy of Higher Education, Bengaluru



Call For Paper

IEEE conference record # #73170

About MAHE Bengaluru

Manipal Academy of Higher Education, Bengaluru is a premier academic institution committed to fostering innovation, excellence, and holistic development. A proud extension of MAHE, ranked among India's top private universities, the Bengaluru campus blends world-class infrastructure, cutting-edge programs, and a multidisciplinary approach to empower students for future challenges. With diverse offerings in Engineering, Management, Law, Arts, Health Sciences, and Design, MAHE Bengaluru nurtures a vibrant academic ecosystem that emphasizes research, industry integration, and global exposure. Guided by the ethos of "You Belong Here", the campus creates a dynamic learning environment where students thrive and excel.

About MIT Bengaluru

Manipal Institute of Technology, Bengaluru, offers an enriching environment for academic and professional growth. Located in Bengaluru, it is part of Manipal Academy of Higher Education (MAHE), which has been recognized as an Institute of Eminence (IoE). Manipal Institute of Technology Bengaluru, is a premier engineering institute offering cutting-edge programs in fields like CSE, Data Science, AI & ML, Robotics, Cybersecurity, IT, ECE and Quantum Computing. The School of Computer Engineering (SoCE) at MIT Bengaluru is dedicated to fostering innovation and excellence in computing, cybersecurity, and emerging technologies. With cutting-edge labs and industry collaborations, SoCE offers B. Tech in Computer Science and Engineering with options for specializing in AI & ML, Quantum Computing, Robotics & AI, Cyber security, Data science, Gamification and Digital twinning. School offers masters programs which include Computer science and Engineering and Data science. The school also offers various Ph.D. programs in major areas to name a few Artificial Intelligence, Machine learning, Computer Vision, Pattern Recognition, Cloud Computing, Big Data Analytics, Edge Computing and Blockchain Technologies, and IoT Technologies.

About Conference

The School of Computer Engineering, Manipal Institute of Technology, MAHE, Bengaluru in association with IEEE CIS Bangalore Chapter and CDAC, is organizing the International Conference on Next-Gen Quantum and Advanced Computing: Algorithms, Security, and Beyond (NQComp-2027) on January 21st-23rd, 2027. This conference aims to serve as a premier interdisciplinary platform for researchers, academicians, and industry professionals to share and discuss the latest innovations in both quantum and classical computing domains. With quantum computing rapidly transforming computation, security, and information theory, the conference will focus on advancements in quantum algorithms, post-quantum cryptography, quantum communication, and secure systems. Simultaneously, the event will also spotlight state-of-the-art research in advanced computing paradigms—including artificial intelligence, high-performance computing, distributed systems, and algorithmic innovation—that play a vital role in hybrid and classical computing landscapes. By bringing together experts from quantum and advanced computing, NQComp-2027 seeks to foster cross-disciplinary collaboration, encourage knowledge exchange, and accelerate progress toward next-generation intelligent systems. The conference will feature keynote talks, technical paper presentations, panel discussions, workshops, and industry sessions—providing a comprehensive forum for academic engagement and technological exploration.

Chief Patron

- Dr. Ramdas M Pai, President and Chancellor, MAHE
- Dr. Ranjan R. Pai, President, MAHE

Patrons

- Dr. H. S. Ballal, Pro-Chancellor, MAHE
- Dr. Sharath. K. Rao, Vice Chancellor, MAHE
- Dr. Karunakar A. Kotegar, Pro-Vice Chancellor, Technology and Science, MAHE
- Prof. (Dr.) Madhu Veeraghavan, Pro-Vice-Chancellor, MAHE Bengaluru
- Prof. (Dr.) Raghavendra Prabhu P, Additional Registrar & Director Administration, MAHE Bengaluru
- Prof. (Dr.) Iven Jose, Director, MIT, Bengaluru

General Chairs

- Dr. Dayananda P, Professor & Dean, SoCE, MIT Bengaluru
- Dr. Megha. P. Arakeri, Professor & Associate Dean, MIT Bengaluru
- Dr. Shaleen Bhatnagar, Assistant Professor-Senior Scale, MIT Bengaluru

Registration Fee

Delegates	Early Bird Registration				Regular Registration			
	Indian (INR)		International (USD)		Indian (INR)		International (USD)	
	IEEE member	Non-IEEE member	IEEE member	Non-IEEE member	IEEE member	Non-IEEE member	IEEE member	Non-IEEE member
Students/Research Scholars	7000	7500	170	220	8000	8500	200	260
Faculty from Academics	8000	8500	220	270	9000	9500	250	300
Delegates from Industry	9000	9500	300	350	10000	11000	325	375
Attendee	—	—	—	—	3000	5000	75	100
Workshop	—	—	—	—	400	500	50	75

*All accepted and presented papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements



Tracks

TRACK-1: QUANTUM ALGORITHMS AND COMPUTATIONAL COMPLEXITY

- Quantum Search Algorithms
- Quantum Speedup and Quantum Advantage
- Quantum Algorithms for Optimization
- Quantum Machine Learning Algorithms
- Quantum Approximate Optimization Algorithm (QAOA)
- Quantum Complexity Classes (BQP, QMA)
- Quantum Algorithms for Real-World Applications

TRACK-2: QUANTUM CRYPTOGRAPHY AND QUANTUM SECURITY

- Quantum Key Distribution (QKD)
- Post-Quantum Cryptography
- Quantum Random Number Generation (QRNG)
- Quantum-Resistant Protocols
- Quantum Digital Signatures
- Quantum Secure Multi-Party Computation
- Quantum-Enabled Blockchain and Cryptocurrencies

TRACK-3: QUANTUM HARDWARE AND QUANTUM COMPUTING ARCHITECTURES

- Superconducting Qubits and Trapped Ions
- Quantum Error Correction and Fault Tolerance
- Quantum Circuit Design and Optimization
- Quantum Hardware Platforms and Scalability
- Quantum Annealing and Adiabatic Quantum Computing
- Quantum System Calibration and Control
- Hybrid Quantum-Classical Systems

TRACK-4: QUANTUM SIMULATION AND QUANTUM MACHINE LEARNING

- Quantum Simulation of Physical Systems
- Quantum Monte Carlo Methods
- Quantum Neural Networks
- Quantum Machine Learning Algorithms
- Quantum Enhanced Optimization
- Quantum Data Science
- Hybrid Quantum-Classical Machine Learning Models

TRACK-5: QUANTUM NETWORKS AND QUANTUM COMMUNICATION

- Quantum Internet and Network Architectures
- Quantum Key Distribution in Networks
- Quantum Repeaters and Entanglement Distribution
- Quantum Communication Protocols
- Quantum Secure Communication Networks
- Quantum Satellite Communication
- Quantum Cryptography for Cloud and Network Security

TRACK-6: ADVANCED COMPUTING

- Grid Computing/Cloud Computing
- Artificial Intelligence and Machine Learning
- High Performance Computing and Networks
- Distributed Computing
- Information Retrieval and Database Systems
- Pattern Recognition and Semantic Web
- Software Engineering and Software Architecture
- Evolutionary Algorithms
- Speech and Image Processing
- Intelligent Robotics and Autonomous Agents
- Embedded Systems and Operating Systems
- IT Applications in Agriculture, Healthcare, and Smart Systems
- Coding Techniques and Software Development Methodologies

Important Dates

Call for papers

July 15, 2026

Paper Submission Deadline

September 30, 2026

Acceptance Notification

November 15, 2026

Camera Ready Submission

December 1, 2026

Early Bird Registration

November 25- 30, 2026

Regular registration

December 1- December 7, 2026

Conference

January 21 – 23, 2027



**Paper
Submission**



**Conference
site**

PAPER SUBMISSION:

<https://cmt3.research.microsoft.com/NQComp2027/submit/index>

WEBSITE:

<https://conference.manipal.edu/nqcomp2026/index.html>

CONTACT US ->

Email : nqcompmit@gmail.com

Dr. Megha. P. Arakeri : +91 90089 77922

Dr. Shaleen Bhatnagar : +91 81973 61372