

A WORKSHOP ON QUANTUM COMPUTING: THEORY, ALGORITHMS & REALITY

QCTAR - 2026

10TH AND 11TH MARCH 2026 @IISC, BENGALURU, INDIA

SCHEDULE - DAY 1

TIME	TITLE AND SPEAKER
9.15 am - 9.30 am	Welcome by Quantum Research Park (QuRP) Prof. Akshay Naik, Principal Investigator, QuRP Professor, Center for Nano Science and Engineering (CeNSE), IISc, Bengaluru
9.30 am - 10.00 am	Introduction and Motivation Dr. Seenivasan Hariharan, Technology Manager - Quantum Algorithms (QuRP)
10.00 am - 11.00 am	Quantum Information Basics: States, Superposition and Measurement Prof. Anshu Pandey, Professor, Solid State and Structural Chemistry Unit (SSCU), IISc Bengaluru
11.00 am - 11.15 am	Break
11.15 am - 12.15 pm	Visualizing and Manipulating Qubits - Quantum gates & Quantum circuits, Prof. Baladitya Suri, Associate Professor, Department of Instrumentation and Applied Physics (IAP), IISc Bengaluru
12.15 pm - 1.30 pm	Lunch
1.30 pm - 3.00 pm	Quantum Algorithms: Framework & Complexity Prof. Apoorva D Patel, Emeritus Professor, Center for High Energy Physics (CHEP), Visiting Faculty, QuRP, IISc Bengaluru
3.00 pm - 3.30 pm	Break
3.30 pm - 5.00 pm	Flagship Quantum Algorithms - Search, Fourier Transform & Factoring Prof. C. M. Chandrashekar, Assistant Professor, Department of Electronic Systems Engineering (DESE), IISc Bengaluru
5.00 pm - 5.15 pm	Summary & wrap-up



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SCHEDULE - DAY 2

TIME	TITLE AND SPEAKER
9.30 am - 10.30 am	Noise to Fault Tolerance – Making Quantum Computing Work Prof. Shayan Srinivasa Garani, Professor, Division of ESE, Dept. of ESE, EECS Division, IISc, Bengaluru
10.30 am - 11.30 am	AI as an Enabler for Quantum Computing Dr. Aritra Sarkar, Senior researcher - Fujitsu Research India Private Limited.
11.30 am - 11.45 am	Break
11.45 am - 12.15 pm	Quantum Programming Frameworks Dr. Seenivasan Hariharan, Technology Manager-Quantum Algorithms (QuRP)
12.15 pm - 1.15 pm	Lunch
1.15 pm - 2.15 pm	Hands on Quantum Programming - From Quantum Gates to Quantum Circuits Dr. Seenivasan Hariharan, Technology Manager-Quantum Algorithms (QuRP)
2.15 pm - 3.30 pm	Quantum Algorithms in Practice – From Simulators to Hardware Dr. Anupama Ray, Technical Lead, Quantum + AI. Senior Research Scientist, IBM
3.30 pm - 3.50 pm	Break
3.50 pm - 4.50 pm	Panel discussion: Future directions: Careers, Research & the Quantum Ecosystem Dr. Anupama Ray, Senior Research Scientist, IBM Dr. Aritra Sarkar, Senior researcher - Fujitsu Research India Private Limited Dr. Phani Motamarri, Assistant Professor, Computational and Data Sciences, IISc Dr. Ananth Govind Rajan, Associate Professor, Chemical Engineering, IISc
4.50 pm - 5.00 pm	Concluding remarks

