

A WORKSHOP ON QUANTUM COMPUTING: THEORY, ALGORITHMS & REALITY

QCTAR - 2026

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

SCHEDULE - DAY 1 @ RBM LECTURE HALL, CHEMICAL SCIENCES BUILDING

TIME	TITLE AND SPEAKER
8.30 am onwards	Registration
9.15 am - 9.30 am	Welcome by Quantum Research Park (QuRP) Prof. Akshay Naik, Chief Project Executive, Quantum Research Park Center for Nano Science and Engineering (CeNSE), IISc, Bengaluru
9.30 am - 10.00 am	Introduction and Motivation Dr. Seenivasan Hariharan, Quantum Research Park
10.00 am - 11.00 am	Quantum Information Basics: States, Superposition and Measurement Prof. Anshu Pandey, 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, 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, Center for High Energy Physics (CHEP), IISc Bengaluru; Visiting Faculty, Quantum Research Park
3.00 pm - 3.30 pm	Break
3.30 pm - 5.00 pm	Flagship Quantum Algorithms – Search, Fourier Transform & Factoring Prof. C. M. Chandrashekar, Department of Electronics Systems Engineering (ESE), IISc Bengaluru
5.00 pm - 5.15 pm	Summary & wrap-up



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SCHEDULE - DAY 2 @ RBM LECTURE HALL, CHEMICAL SCIENCES BUILDING

TIME	TITLE AND SPEAKER
9.30 am - 10.30 am	Noise to Fault Tolerance – Making Quantum Computing Work Prof. Shayan Srinivasa Garani, Department of Electronics Systems Engineering (ESE), IISc Bengaluru
10.30 am - 11.30 am	AI as an Enabler for Quantum Computing Dr. Aritra Sarkar, Fujitsu Research India Private Limited
11.30 am - 11.45 am	Break
11.45 am - 12.15 pm	Quantum Programming Frameworks Dr. Seenivasan Hariharan, Quantum Research Park
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, Quantum Research Park
2.15 pm - 3.30 pm	Quantum Algorithms in Practice – From Simulators to Hardware Dr. Anupama Ray, IBM Research, India
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, IBM Research, India Dr. Aritra Sarkar, Fujitsu Research India Private Limited Prof. Phani Motamarri, Computational and Data Sciences, IISc Bengaluru Prof. Ananth Govind Rajan, Chemical Engineering, IISc Bengaluru
4.50 pm - 5.00 pm	Concluding remarks

