

Facilitated by AICTE, NQM, MeitY,
IBM & Others

Online Faculty Programme on

QT-00 & 01 Foundations of Quantum Computing and Applications

Aug. 17 – Sept. 11, 2026

Twenty Days (Mon to Sat)

Time: 2:00 – 4:00 PM



Jointly Organized by MNITJ, IITG, IITK, IITR,
NITP, NITW & IIITDM

Chairman, EICT Academy & Director MNIT Jaipur

Prof. Narayana Prasad Padhy

Chief Investigator, EICT Academy

Prof. Vineet Sahula, ECE

Coordinator, EICT Academy

Dr. Satyasai Jagannath Nanda, ECE

Co- Chief Investigators, EICT Academy

Prof. Lava Bhargava, ECE

Prof. Pilli Emmanuel Shubhakar, CSE

Dr. Ravi Kumar Maddila, ECE

Objective (Electronics & ICT Academy-Phase II)

- 1) To conduct specialized FDPs for faculty/mentor training in line with the vision of MeitY by promoting emerging areas of technology and other high-priority areas that are pillars of both the "Make in India" and the "Digital India" programs.
- 2) To promote synergy and collaboration with industry, academia, universities and other institutions of learning, especially in emerging technology areas.
- 3) To support the National Policy on Electronics 2019 (NPE 2019) which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
- 4) To promote standardization of FDPs through Joint Faculty Development Programmes.
- 5) To support the vision of the National Education Policy (NEP 2020), which mandates that Indian educators go through at least 50 hours in professional development programmes per year.
- 6) To design, develop & deliver specialised FDPs on emerging technologies/ niche areas/ specialised modules for specific research areas for Faculty in Higher Education Institutions (HEI), besides FDPs on multi-disciplinary areas connected with ICT tools and technologies and other digital hybrid domains, covering a wide spectrum of engineering and non-engineering colleges, polytechnics, ITIs, and PGT educators.

An intensive **20 Day - 40 Hours** Training Programme in Online Mode is being organized for faculty and doctoral students of engineering, science, and technological institutions. It is also open to working professionals from the industry/organizations. The programme will be run for **only two hours** in the afternoon from **14:00 to 16:00 hours Daily (Mon to Sat)**.

Foundations of Quantum Computing and Applications is a Faculty Development programmes combining the courses **QT-00 & QT-01** in the series courses aligning with recently approved **Minor Course Curriculum** by AICTE and NQM.

<https://facilities.aicte-india.org/Minor Quantum Technologies.pdf>

Tentative Experts / Speakers

1. Dr. L. Venkata Subramaniam, CEO Qbit Force, Amravati
2. Dr. Mostafizur Rahaman, IBM Quantum, Bengaluru
3. Dr. Aswath Babu, IIIT Dharwad
4. Ms. Nivedita Dey, AKCSIT, Kolkata
5. Dr. Richa Goel, IBM Quantum, Bengaluru
6. Dr. Jayakumar Vaithiyashankar, CEO Anuthantra
7. Prof. Pilli Emmanuel Shubhakar, MNIT Jaipur
8. Dr. Rajendra Mitharwal, MNIT Jaipur

Programme Modules:

Quantum Technologies: Four verticals (Computing, Communication, Sensing & Metrology, and Materials & Devices.); Salient aspects of Quantum Physics; Superposition and Entanglement; No Cloning;

Quantum Computation: Qubits, Di Vincenzo criteria; Qubit Gates and Circuits; NMR Qubits; Physical implementation of qubits; Rivest-Shamir-Adleman (RSA) Algorithm and Shors Algorithm;

Quantum Sensing; Photon generation and detection; Gravimetry, Atomic clock, Magnetometry;

Quantum Communications; Quantifying classical information, Shannon entropy; Terrestrial – fibre-based; Free space - satellite-based;

Principal Coordinator

Prof. Pilli Emmanuel Shubhakar
9462937359 (M)

Joint Principal Coordinator

Dr. Mahipal Jadeja
7069136994 (M)

Registration:

Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate and graduate students. Participants will be admitted on first-come first-served basis.

Register online at- (<http://online.mnit.ac.in/eict/>)



Certification Fee (GST 18% additional):

- Academic (Faculty/PhD Scholars) [(India/SAARC/African countries)]: ₹750/-
- Professionals / Industry / Others [India / SAARC / African countries]: ₹1500/-
- Participants from the **Rest of the World USD: \$ 60 (Please contact at email)**
- The fee covers online participation, material and certification charges
- Webinar Classes will be on Cisco **WebEx**, Notes / Slides will be shared and Quizzes / Assignments will be conducted on Moodle.

→ For any other query, email us at fdp.eict@mnit.ac.in

MNIT Jaipur one of the oldest NITs, the institute has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 42nd nationally in the NIRF ranking-2025 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains. Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcome you at the campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology.