

Facilitated by AICTE, NQM, MeitY,
IBM & Others

Online Faculty Programme on

QT-00 & 01 Foundations of Quantum Computing and Applications

August 03 – 27, 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**
- 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.