Prof. Prasad B. Rampure, M.E., Ph.D.
REGISTRAR

REF: VTU/BGM/BoS/847PG/2025-26/ 3988
DATE: 6 NOV 2025

NOTIFICATION

Subject: Institution of M.Tech., in Quantum Technology from Academic Year 2025-26 regarding...

Reference: Approval and order from Hon'ble Vice Chancellor dated 06.11.2025

Visvesvaraya Technological University (VTU), Belagavi, hereby notifies the institution of a new postgraduate programme – **M.Tech in Quantum Technologies**, which is being introduced **for the first time in the State and among the pioneering programmes in the country**.

This programme represents a major milestone in VTU's ongoing efforts to strengthen education and research in frontier areas of technology. It aligns with India's **National Quantum Mission (NQM)** and national priorities on emerging and interdisciplinary technologies, aiming to nurture highly skilled professionals for the evolving quantum ecosystem.

The **industry-powered** M.Tech in Quantum Technologies programme will be offered at the **Visvesvaraya Technological University Regional Centre, Bengaluru**, and commencing from the Academic Year **2025–26**

Details regarding admission and other matters are outlined in **Annexure I**

REGISTRAR

To,
01. The principals of Affiliated Autonomous, Non-Autonomous, Constituent Engineering Colleges under the ambit of the University
02. The Chairpersons/Programme Coordinators of University Departments at Kalburgi, Belagavi, Bengaluru and Mysuru

Copy to,
1. The Hon'ble Vice-Chancellor, through the Secretary to the VC, for information
2. The Dean Faculty of Engineering for information
3. The Registrar (Evaluation) for information and needful
4. The finance officer for information and needful
5. The Director ITI SMU, VTU Belagavi for information and make arrangements for uploading of the Notification on the VTU web portal
6. Office file

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M.Tech., in Quantum Technologies

A brief note on industry relevance

A **M.Tech in Quantum Technologies** is **highly relevant** for the emerging quantum-industry ecosystem. As analysts project a global requirement of over **250,000 quantum professionals by 2030**, the demand for **skilled experts in this domain is rapidly increasing.** M. Tech program offers a pathway into fields that are poised for growth (computing, communication, sensing, device hardware) and aligns with national and global efforts to build quantum-capable talent. For students interested in cutting-edge technology, R&D, and interdisciplinary engineering, this can be a strong choice—provided one is aware of the nascent nature of the field and chooses a programme with strong applied/industry alignment.

Objectives of the Program:

The program aims to provide advanced theoretical knowledge and practical training in Quantum Technologies while nurturing skilled professionals for academia, research institutions, and industries engaged in Quantum Computing, Quantum Communication, Quantum Sensing, and Quantum Materials. It seeks to promote interdisciplinary research by integrating Quantum technologies with Artificial Intelligence (AI), High-Performance Computing (HPC), and next-generation communication systems. Furthermore, the initiative aligns with national missions and policies on frontier technologies and strives to foster strong industry–academia collaborations that can lead to joint research projects, patents, and innovative startups.

Admission Eligibility:

- B.E./B. Tech in Computer Science and allied branches, Electronics & Communication, Electrical Engineering, Information Technology, or equivalent.
- GATE/PGCET qualified candidates as per AICTE norms.
- Non-GATE candidate aspirant for admission has to qualify the test conducted by the University.

Duration of the Programme :

02 Years (04 semesters)

Intake: -18 as per AICTE

Mode: Full Time Regular

Career Options:

01. Software and development
- Quantum Developer/Software Engineer: Work on developing quantum algorithms, software frameworks (like Qiskit), and hybrid quantum-classical applications.
- Quantum Cryptography Specialist: Focus on secure communication and cybersecurity applications of quantum technology.
- Algorithm Engineer: Specialize in designing and optimizing quantum algorithms for specific problems in areas like machine learning, optimization, or finance.

02. Hardware and engineering
- Quantum Hardware Engineer: Be involved in the design, fabrication, and testing of quantum hardware components and systems, including cryogenics and control systems.
- Quantum Device Engineer/Characterization Engineer: Focus on building, testing, and improving quantum devices, such as qubits.
- System Engineer: Work on integrating quantum processors with classical high-performance computing (HPC) systems.

03. Research and academia
- Quantum Researcher: Join R&D departments at tech companies, startups, or government labs to work on cutting-edge quantum projects.
- Research Associate/Scientist: Work alongside senior researchers on specific topics like quantum error correction or new quantum models.
- Faculty in universities and Colleges: Teach and conduct research in quantum technology at academic institutions.

Programme Coordinator details —

Name:	**Dr. Ajith Padyana**
Mobile:	+91 9731015499
Email ID:	**director_vrif_tcoe@vtu.ac.in / ajithpadyana.vtu@gmail.com**

Faculty Coordinator details (For academic Details): —

Name:	Dr. Santosh M Nejakar
Mobile :	+91 9480184610
Email ID:	santosh.ra.vtu@gmail.com

Programme venue: —

Visvesvaraya Technological University, Regional Centre, Bangalore

(Or)

Visvesvaraya Institute of Advanced Technology, Muddenahalli

Fee structure*:* Will update soon

The program is designed to create a **competency network of skilled manpower, drive innovation, and contribute to India's National Quantum Mission (NQM)**, ensuring that VTU emerges as a leader in advanced technology education and research.

Industry-powered" refers to academic or professional programs that are directly shaped, supported, or co-developed by industry partners to ensure relevance, employability, and real-world impact.