

About the Workshop:

This workshop is organized by the School of Electronics Engineering, VIT, Vellore. The eminent persons from Centre for Development of Advanced Computing (C-DAC) Pune are delivering the talks. As we stand on the brink of a new era in computational power, quantum computing is transitioning from theoretical physics to practical, real-world application. It is designed to bridge that gap by providing a comprehensive, hands-on exploration on Qniverse. Participants will gain practical experience in building quantum circuits, leveraging high-performance simulators, and understanding the mathematical foundations of qubits, the implementation of machine learning models in a quantum environment, this workshop offers a structured path to mastering the Qniverse ecosystem. Our goal is to equip you with the technical skills necessary to navigate this complex field, transforming complex theory into functional, executable code. Let's begin the journey into the quantum realm. The target audiences are Undergraduate, Postgraduate students, research scholars and faculties

Workshop Highlights:

Phase 1: Foundations of Quantum Computation

- Introduction to Qubits:
- Postulates of Quantum Mechanics:
- Quantum Gates Library:

Phase 2: Hands-on with Qniverse Platform

- Environment Overview:
- Visual Circuit Composer:
- Code Editor Mastery:

Phase 3: High-Performance Simulation &

- Hardware Execution
- HPC Integration:.
- Backend Management
- Real Quantum Hardware

Phase 4: Implementing Quantum Algorithms

- Fundamental Protocols:
- Oracle-Based Algorithms
- NISQ-Era & Hybrid Algorithms:

Phase 5: Error Correction & Future Trends

- Quantum Error Correction (QEC):
- Industry Use Cases

Registration fee: Rs. 500/-(inclusive of 18% GST)

Registration Link: <https://events.vit.ac.in/>

Last Date for registration: 30th May 2026

E-certificates will be distributed

Advisory Committee:

Dr. M. Jasmine Pemeena Priyadarsini

Professor and Dean,
School of Electronics Engineering (SENSE),
Vellore Institute of Technology, Vellore, India.

Dr. Sathya. P

Associate Professor Sr and Head,
Department of Sensor and Biomedical Technology,

Dr. Kannadassan. D

Professor and Head,
Department of Communication Engineering
SENSE, VIT, Vellore.

Coordinators

Dr. Arunkumar Chandrasekhar,
Associate Professor
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Resource Persons

Day 1:

- 1) Er. Mithilesh Gaikwad,
Project Engineer
- 2) Er. Saraswati Kendre,
Project Engineer
- 3) Er. Vishu Vyas
Project Engineer
C-DAC, Pune, India

Day 2:

- 1) Er. Kanishka Padamata Sai,
Knowledge Associate
- 2) Er. Aashay Pandharpatte,
Knowledge Associate
- 3) Dr. Jitendra Joshi
Knowledge Associate
C-DAC, Pune, India

Mode: Online Platform

Time: 10:00 AM to 1:00 PM



One Day National Level workshop

on

Qniverse Unlocked: Hands-on Quantum Programming (Online Mode)

June, 1st to 2nd 2026 (Forenoon Session)

Organized by
School of Electronics Engineering
VIT, Vellore.
In collaboration with C-DAC, Pune

