GOVERNMENT OF ANDHRAPRADESH ABSTRACT

ITE&C Department - Amaravati Quantum Valley Declaration - Orders -Issued.

INFORMATION TECHNOLOGY, ELECTRONICS & COMMUNICATIONS (INFRA WING) DEPARTMENT

G.O.Ms.No.23 Dated:07.07.2025

Read:

Efile No: ITC01-IT0INFR/1/2025-INFRA (Computer No. 2830108) – Amaravati Quantum Valley Declaration - Reg.

ORDER:

The Government of Andhra Pradesh successfully organized the Amaravati Quantum Valley Workshop on 30th June 2025 at Vijayawada. This landmark initiative was conceived to catalyze collaboration across multiple sectors within the Government, the industry, academia, and startups—with a unified objective of establishing Amaravati as a prominent global hub within the emerging quantum technology landscape. The workshop served as a strategic platform for thought leadership, dialogue, and partnership development across the quantum ecosystem.

- 2. As a key outcome of the deliberations held during the workshop, the stakeholders collectively developed the "Amaravati Quantum Valley Declaration", a forward-looking document that encapsulates shared commitments, long-term vision, and strategic priorities for quantum research, innovation, talent development, infrastructure creation, and international engagement. This declaration reflects the aspiration to transform Amaravati into a globally competitive center for quantum science and technology.
- 3. After careful examination of the proceedings and in view of the significance of this initiative, the Government hereby approves the Amaravati Quantum Valley Declaration. This Declaration shall serve as a guiding framework for the State's efforts in advancing quantum technologies and nurturing a vibrant innovation ecosystem. A copy of the approved Declaration is annexed to this order for reference and further action.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

BHASKAR KATAMNENI SECRETARY TO GOVERNMENT

To:

All the Departments of the Secretariat All the Heads of the Departments

Copy to:

The Chief Secretary to the Government of Andhra Pradesh The Secretary to the Chief Minister, CMO

The PS to SIT/SSIT

//FORWARDED::BY ORDER//

SECTION OFFICER

(Annexure to G.O.Ms.No.23, ITE&C Department, dt:07.07.2025)

Amaravati Quantum Declaration

Shaping India's Quantum and Deep Tech Future

Issued at Amaravati, Andhra Pradesh, on June 30, 2025

On 30 June 2025, the Amaravati Quantum Valley (AQV) Workshop hosted three focused round-tables on 1) Quantum Computing & Algorithms, and Hardware Ecosystem 2) Quantum Sensing & Communication, and Quantum Material and Chips, and 3) Capacity Building & Standardization, and Startup Innovation Ecosystem.

Participants included senior government officials, industry leaders, global partners, startups, and scholars. We express our sincere gratitude to the Government of Andhra Pradesh, the National Quantum Mission (NQM), and every delegate from academia, industry, and the start-up community whose insights shaped this declaration.

Preamble

Recognising the transformative power of quantum technologies to advance computation, secure communication, high-precision sensing, and national resilience, and inspired by Amaravati's vision to be India's "Quantum Gateway", we, the undersigned, adopt the following commitments.

Joint Commitments

Living-Lab Infrastructure: The Amaravati Quantum Valley (AQV) will establish India's largest open quantum testbed – *QChipIN* - within twelve months. This initiative will integrate quantum computers, QKD fibre links, and deployable sensor platforms to enable pilots across sectors like health-tech, BFSI, logistics, Défense, and space. *QChipIN* will provide end-to-end access to quantum hardware, algorithms, tools, and expert support, hosted within a specialized Tech Park in partnership with industry and academia, aimed at accelerating domestic R&D and capacity building in quantum technologies.

Key Targets:

- By Jan 1, 2026: IBM Quantum System Two installed at AQV.
- By Jan 1, 2026: Capability to test 100 quantum algorithms.
- By Jan 1, 2027: Three quantum computers- each based on a distinct qubit technology chosen from Superconducting Circuits, Trapped Ions, Photonic Qubits, Neutral Atoms, or Topological Qubits - shall be installed at AQV.
- By Jan 1, 2028: Over 1000 new quantum algorithms tested annually.
- By Jan 1, 2029: Achieve 1000 effective qubits of total quantum capacity.

Indigenous Supply-Chain Acceleration: AQV will anchor domestic production of qubit platforms, cryo-electronics, photonic packages, quantum chips, quantum dots, quantum readout hardware like single photon detectors, homodyne detectors, and control systems, targeting ₹ 5000 crore in annual exports by 2030.

Talent & Capacity Building: The Amaravati Quantum Valley (AQV) will establish India's first Integrated Quantum Skilling Ecosystem with two main thrusts:

- Amaravati Quantum Academy (launching in 2025–26) will offer integrated PhD fellowships, engineer upskilling, and technician certifications—training 200 specialists in year one and 5,000 annually by 2030. It will house dedicated research and education centres for design and engineering.
- Academic Enablement aims to empower at least 20 universities in Andhra Pradesh and 100 across India to run undergraduate, postgraduate, and PhD programs in Quantum Technology by January 1, 2027. Courses and curricula—including Micro-Degrees—will be ready by January 1, 2026.
- The State Quantum Mission will support academia in scaling quantum education and research.

Startup & Investment Catalyst: The Amaravati Quantum Valley (AQV) will spearhead the creation of a National Startup Forum with VC-backed milestone-based funding and mentorship. A dedicated ₹1000 crore Quantum Fund and access to living-lab infrastructure will support at least 20 quantum hardware and security startups in the next year and 100 by 2030. Startups will also benefit from regulatory sandboxes. AQV aims to attract a minimum of USD 500 million in quantum technology investments by January 1, 2027, with a target of USD 1 billion by January 1, 2029, covering areas such as computing, chips, sensing, and communications.

Global Collaboration & Standards Leadership: In partnership with the National Quantum Mission, we will establish a Global Quantum Collaboration Council (GQCC) in Amaravati to harmonize international standards, pursue joint R&D, and promote trusted supply networks.

Governance & Accountability: A multi-stakeholder Amaravati Quantum Valley Mission Board shall be established with multiple working groups to identify the use case of quantum in different sectors. It shall also publish a transparent dashboard of KPIs each quarter and convene an annual "World Quantum Expo" in Amaravati starting 2026.

Call to Action

We invite all stakeholders - government, industry, academia, startups, and global partners - to rally behind this declaration, transforming Amaravati into a lighthouse for quantum innovation, standards, and inclusive prosperity.

By 2035, Amaravati aims to be not only India's quantum capital but also the world's lighthouse for deep technological progress.

Signed on this 30th day of June 2025 at Amaravati, Andhra Pradesh.