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सचिव

**Prof. Manish R. Joshi**  
Secretary



सत्यमेव जयते



विश्वविद्यालय अनुदान आयोग  
**University Grants Commission**  
(शिक्षा मंत्रालय, भारत सरकार)  
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**Subject: Regarding setting up of National Quantum Mission (NQM)**

Respected Madam/Sir,

Recently, the Union Cabinet has approved National Quantum Mission at a total cost of Rs.6003.65 for the period 2023-24 to 2030-31, aiming to seed, nurture and scale up scientific and industrial R&D and create a vibrant and innovative ecosystem in Quantum Technology. It has also been decided to set up a National Quantum Mission (NQM) under Ministry of Science and Technology. This initiative is expected to accelerate QT led economic growth, nurture the ecosystem in the country and make India one of the leading nations in the development of Quantum Technologies & Applications (QTA).

In this regard, the new mission targets developing intermediate scale quantum computers with 50-1000 physical qubits in 8 years in various platforms like superconducting and photonic technology. Satellite based secure quantum communications between ground stations over a range of 2000 kilometres within India, long distance secure quantum communications with other countries, inter-city quantum key distribution over 2000 kilometres as well as multi-node quantum network with quantum memories are also some of the deliverables of the Mission.

This mission will help in developing the magnetometers with high sensitivity in atomic systems and Atomic Clocks for precision timing, communications and navigation. It will also support design and synthesis of quantum materials such as superconductors, novel semiconductor structures and topological materials for fabrication of quantum devices. Single photon sources/detectors, entangled photon sources will also be developed for quantum communications, sensing and meteorological applications.

Four Thematic Hubs (T-Hubs) will be set up in top academic and National R&D Institutes on the domains- Quantum Computing, Quantum Communication, Quantum Sensing & Metrology and Quantum Materials & Devices. The hubs which will focus on generation of new knowledge through basic and applied research as well as promote R&D in areas that are mandated to them. NQM can take the technology development eco-system in the country to a globally competitive level. The mission would greatly benefit communication, health, financial and energy sectors as well as drug design, and space applications. It will provide a huge boost to national priorities like digital India, Make in India, Skill India and Stand-up India, Start-up India, Self-reliant India and Sustainable Development Goals (SDG).

The Higher Education Institutions are requested to disseminate the information about National Quantum Mission (NQM) among the faculty, researchers and students so as to acquire benefit from this mission.

With kind regards,

Yours sincerely,

(Manish Joshi)

To  
**The Vice-Chancellors of all Universities**  
**The Principals of all Colleges/Institutes**

