

C-DAC and Bank of India Join Hands to Advance Indigenous Quantum Technologies for Banking Applications

MoU to Drive Joint Research, Proofs of Concept, Technology Demonstrations and Capacity Building for Future-Ready Banking

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The Centre for Development of Advanced Computing (C-DAC), an autonomous scientific society under the Ministry of Electronics and Information Technology (MeitY), Government of India, and Bank of India (BOI), signed a Memorandum of Understanding (MoU) to collaborate on quantum financial innovation and the adoption of emerging technologies in banking on 22 October 2026.



The MoU establishes a framework for C-DAC and BOI to explore joint research, development, pilot implementations, technology demonstrations and capacity-building initiatives across technologies of strategic relevance to the banking and financial services sector.

The collaboration brings together C-DAC's capabilities in High Performance Computing, Artificial Intelligence, Quantum Technologies, Blockchain, Cybersecurity and indigenous technology development with Bank of India's banking domain expertise, nationwide presence and high-volume technology environment.

A key focus of the partnership will be the development of a **Quantum Ecosystem for Financial Innovation**, aimed at preparing banking systems for the opportunities as well as emerging security challenges associated with quantum technologies. The two organizations will jointly explore quantum-inspired and quantum-safe technologies that can strengthen security, trust, resilience and decision-making in banking.

The collaboration will seek to identify a prioritized portfolio of banking use cases, demonstrate Proofs of Concept in secure sandbox environments, assess technical feasibility and potential banking value, benchmark emerging approaches against existing systems, and develop roadmaps for further development, pilots or adoption.

Shri S. Krishnan, Secretary IAS, MeitY, congratulated Bank of India for its contribution to technological advancement and appreciated its collaboration with C-DAC to foster indigenous innovation. He emphasised the need to build a **quantum-resilient financial ecosystem** in an era of growing cybersecurity concerns and emerging technological threats, preparing the banking sector for the challenges and opportunities of the quantum era.

Commenting on the MoU, Shri E. Magesh, Director General, C-DAC, said, This collaboration with Bank of India is an important step towards translating India's indigenous quantum and emerging technology capabilities into practical banking solutions. Through joint research and development and capacity building, C-DAC aims to support a secure, resilient and future-ready financial ecosystem.

Commenting on the collaboration, Shri Rajiv Mishra, Executive Director, BOI, said, "Quantum technologies have the potential to reshape several aspects of banking, from cybersecurity to complex financial decision-making. Through our collaboration with C-DAC, we aim to explore and evaluate these emerging possibilities in a structured manner, while building the knowledge and capabilities required to prepare Bank of India for the next generation of technology"

Beyond quantum technologies, the MoU provides a framework for collaboration in **Blockchain, Artificial Intelligence and other emerging technologies relevant to financial services**. Potential areas include intelligent document processing, customer and employee assistance, fraud analysis, credit and financial analytics, secure AI platforms, responsible AI, smart contracts, digital identity, secure data sharing and other applications relevant to banking.

The partnership will also focus on developing a future-ready talent ecosystem through training and capacity-building programmes in areas including Quantum Computing, Quantum Security, Artificial Intelligence, Blockchain and other emerging digital technologies.

The MoU was formally exchanged by Shri Aditya Kumar Sinha, Executive Director, C-DAC Mumbai and Shri Satyendra Singh , CGM IT & CIO, Bank of India , in the presence of Shri S. Krishnan, IAS, Secretary, MeitY; Shri Rajiv Mishra, Executive Director, Bank of India, Shri

Sudeep Shrivastava, Joint Secretary, MeitY, Shri E. Magesh Director General C-DAC, along with other senior officials from MeitY, Bank of India and C-DAC.

Through the collaboration, Bank of India and C-DAC Mumbai aim to create a structured pathway for translating indigenous research and emerging technologies into practical banking applications, while contributing to a secure, resilient and technologically future-ready financial ecosystem.

Vinod Kumar / Kanishk Sharma

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