Confederation of Indian Industry

Quantum Technology Conclave

Quantum to Impact: From Research to Real-World Adoption

Monday, 16 March 2026 : Le Meridien, New Delhi

www.cii-quantum.in

Programme

1000 - 1050 hrs Inaugural Session | "Quantum to Impact: From Research to Real-World Adoption"	
Quantum technology is rapidly advancing from theoretical research to early real-world applications in computing, communication, sensing, and security. While global investments and research progress are accelerating, challenges remain in scaling, commercialization, infrastructure, and talent availability. "Quantum to Impact: From Research to Real-World Adoption" underscores the need to bridge this gap by aligning research with industry needs and fostering collaboration to unlock tangible economic and societal benefits.	
1100 hrs	Inaugural Session Concludes

1100 – 1200 hrs Panel Discussion - I | "Quantum + AI + High-Performance Computing (HPC): The Next Intelligence Stack"	
Background: The convergence of Quantum Computing, Artificial Intelligence, and High-Performance Computing (HPC) is creating a new intelligence stack capable of solving problems beyond classical limits. Together, these technologies enhance computational speed, learning capability, and scale, enabling breakthroughs in optimisation, simulation, data analytics, and decision-making across critical sectors, driving the next wave of digital and scientific transformation. **Discussion points:** • How can Quantum, AI, and HPC be effectively integrated into hybrid intelligence systems? • Which real-world problems can this combined stack solve better than classical computing alone? • How will quantum-enhanced HPC accelerate AI model training and optimisation? • What infrastructure and skill sets are essential to support this next intelligence stack? • How can industries identify near-term value while preparing for long-term quantum advantage?	
1200 hrs	Session concludes
1200 – 1215 hrs	Tea / Coffee Break

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1215 – 1315 hrs Panel Discussion - II | "Quantum for Advanced Manufacturing & Industry 4.0"	
Background: Quantum for Advanced Manufacturing & Industry 4.0 explores how quantum computing, sensing, and communication can enhance smart manufacturing systems. By enabling faster optimisation, accurate simulations, improved materials discovery, and secure industrial networks, quantum technologies can complement AI, IoT, and robotics—driving efficiency, resilience, and competitiveness in next-generation manufacturing ecosystems. **Discussion Points:** • Where can quantum technologies deliver near-term value in advanced manufacturing? • How can quantum computing enhance optimisation, scheduling, and supply-chain resilience? • What role can quantum sensing play in precision manufacturing and quality control? • How will quantum technologies integrate with AI, IoT, and digital twins in Industry 4.0? • What infrastructure, skills, and investments are needed for industrial adoption?	
1315 hrs	Session concludes

1315 – 1415 hrs Panel Discussion – III | "Quantum-Safe Cybersecurity & Cryptography: Preparing for the Post-Quantum Era"	
Background: Quantum-Safe Cybersecurity & Cryptography: Preparing for the Post-Quantum Era addresses the urgent need to protect digital infrastructure against quantum-enabled threats. As quantum computers advance, many classical encryption methods risk becoming obsolete. Developing quantum-resistant cryptography, secure communication protocols, and robust cybersecurity strategies is critical for safeguarding data, financial systems, government networks, and critical infrastructure in the emerging post-quantum era. **Discussion Points:** • Which current cryptographic systems are most vulnerable to quantum attacks? • What approaches and standards exist for quantum-resistant cryptography? • How can organizations prepare their IT infrastructure for post-quantum security? • What role do governments and industry play in shaping quantum-safe cybersecurity policies? • How can startups and innovators accelerate the development and adoption of post-quantum security solutions?	
1415 hrs	Session concludes
1415 onwards	Networking Lunch & Conclave Concludes

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