



ASET@TIFR Colloquium Talk on

**Quantum Safe Cryptography - Building a quantum resilient future with agility**  
**Mr. Jai Singh Arun (Global Head of IBM Quantum Safe Product Management & Strategy)**

**Friday, 5 July 2024 at 4 p.m.**

Hybrid (Lecture Theatre AG66, TIFR, Mumbai)

YouTube Live: <https://tinyurl.com/ASETon5Jul>



As quantum computers advance, they will challenge many of the security protocols on which the modern digital economy relies. Standards bodies and working groups around the world are already establishing timelines for transitioning data and systems to a quantum-safe cryptography (a.k.a. Post-Quantum Cryptography - PQC). IBM Research and his global team has been leading the charge in quantum computing technology as well the cryptographic research to develop a quantum-safe technology. IBM researchers developed three out of four PQC algorithms selected by NIST for standardization. Several technology giants including IBM, Google, Apple, Meta, Zoom are already implementing these to secure their applications & systems for the quantum era.

In this session, Mr. Jai Singh Arun will share the details of:

- Why we need quantum safe cryptography
- What is quantum safe cryptography
- When do organizations need to migrate to quantum-safe cryptography
- Who should be concerned about this migration
- How can organizations start on a journey to quantum safe

Mr. Jai Singh Arun is an entrepreneurial executive with over 26 years of experience working with IBM, Unisys, Tata Institute of Fundamental Research, and start-up organizations.

Mr. Arun is currently based in USA and spearheading global business strategy, product management, engineering, and go-to-market execution of IBM Quantum Safe Cryptography solutions including software technology and services as part of Quantum business unit in IBM Research.

He earned an MBA degree from University of North Carolina, Chapel Hill, NC, USA and ME in Computer Engineering from VJTI, Mumbai and BE in Computer Science from NIT, Bhopal, India. He is a Certified CISO (CCISO), Certified Information Security Manager (CISM), Certified in Cybersecurity (CC), and Certified Project Management Professional (PMP). He has three patents published at USPTO and several inventions published on ip.com. Also, he is an author of "Blockchain for Business" book.

Mr. Arun is a TIFR alum, during 1997-1999 he was a Computer Scientist and Researcher at the School of Technology and Computer Science and worked under Padma Shri Dr. P.V.S. Rao and Dr. R. K. Shyamasundar.

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