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Nota di contenuto	Quantum Technologies I: Information, Communication, and Computation -- Quantum Technologies II : Cryptography, Blockchains, and Sensing -- Empirical Analysis of Security Enabled Quantum Computing for Cloud Environment -- Photonic Quantum Computing -- A Conceptual Framework for Scaling and Security in Serverless Environments using Blockchain and Quantum Key Distribution -- Implications of Quantum Science on Industry 4.0: Challenges and Opportunities -- Quantum Generative Modelling and its Use Cases -- A comprehensive overview of Quantum Internet: Architecture, Protocol and Challenges -- Quantum Solutions to Possible Challenges of Blockchain Technology -- Blockchain, AI, Machine Learning, IOT for

Supply chain Management -- Quantum Computing and Quantum Blockchain: Recent Advancements, Analysis and Future Directions -- Secure Blockchain-based Mental Healthcare Framework: - A Paradigm Shift from Traditional to Advanced Analytics.

Sommario/riassunto

This book states that blockchain technology provides a secure distributed, peer-to-peer, and decentralized network with advanced cryptography primitives and protocols. The important question that arises in the quantum computing world is to test the existing blockchain networks against quantum attacks and design quantum computing enabled secure blockchain solutions. This book encourages professionals from different fields to provide blockchain and quantum technology-integrated solutions that incorporate low-cost, effective QoS, fast, secure, and futuristic demands. This book has surveyed and proposed approaches that improve quantum computing and cryptography protocols. Quantum computing and quantum science are not just helpful in software but the hardware world as well. To design networks with quantum science, quantum-enabled devices like quantum memories and quantum repeaters can be useful to demonstrate for organizations. For example, designing a single quantum repeater for long-distance quantum communication is useful in reducing the network cost, and ensuring better security levels. This book has introduced the quantum computing and blockchain technology aspects, their integration approaches and future directions.