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Altri autori (Persone)	YalaouiFarouk
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Nota di contenuto	Chapter 1. An Overview of Quantum Key Agreement Protocols -- Chapter 2. Variational Circuit based Hybrid Quantum-Classical Algorithm VC-HQCA -- Chapter 3 Quantum computing in Non Destructive Testing of Materials -- Chapter 4. Enhanced Gaussian Quantum Particle Swarm Optimization for the Clustering of Biomedical Data -- Chapter 5. Quantum Inspired Grey Wolf Optimizer for Convolutional Neural Network Hyperparameter Optimization -- Chapter 6. Frequent itemsets mining using new quantum inspired elephant swarm algorithm -- Chapter 7. Quantum Slime Mould Algorithm and application to urgent transportation -- Chapter 9. Quantum FP-Growth for Association Rules Mining -- Chapter 10 Gaussian Quantum-behaved PSO strategy for Lithium Battery model optimization -- Chapter 11. Quantum Recurrent Neural Networks for Soil Profiles Prediction in Türkiye -- Chapter 12. Q-CODA: Co-Designing Quantum Codes and Architectures for Hardware-Aware Quantum Error Correction -- Chapter 13. Quantum Computing for Computer Vision: Applications,

Challenges, and Research Tracks -- Chapter 14. A multiparty efficient semi-quantum secret sharing protocol of specific bits -- Chapter 15. Quantum Convolution for Convolutional Neural Networks -- Chapter 16. A Quantum-Inspired Deep Learning Models for Skin Lesion Classification.

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#### Sommario/riassunto

This book is intended for academics, researchers, Ph.D. students, and industrials to learn about quantum computing and prepare them to understand the future with its cutting-edge tools. Quantum computing holds great promise in terms of human life quality especially when combined with artificial intelligence. In addition to quantum computing, the book focuses on quantum artificial intelligence, quantum machine and deep learning, quantum cryptography, and quantum logistics optimization. Applications in weather forecasting, digital soil mapping, skin lesion classification, combinatorial optimization, and urgent transportation, among others, are presented. .

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