



Quantum Computing & Techniques (Theory & Practice)

Author :	Rajiv Chopra
ISBN 13 :	978-93-55384-23-2
ISBN 10 :	93-55384-23-8
E-ISBN 13 :	978-93-55384-23-2
Edition :	1
Pages :	386
Type of book :	Paperback
Weight (g) :	540.00
Year :	2025
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 498.00
Categories :	Emerging Technologies
Condition Type :	New
Country Origin :	India

Product Description

QUANTUM COMPUTING & TECHNIQUES (THEORY & PRACTICE)

1. A Valuable Resource: This well-regarded book is full of important information and is praised in the field of Quantum Computing.
2. Fun Learning: The book makes complex topics enjoyable, helping readers learn in a joyful way.
3. Bridging the Knowledge Gap: It helps readers go from not knowing much about Quantum Computing to understanding it well, breaking down difficult ideas.
4. Clear Understanding: It removes confusion and shines light on the topic, giving reader's confidence in what they learn.
5. Simple and Clear: Despite its complex topic, the book is easy to understand and straightforward.
6. Course Friendly: The content is designed to match the study programs of many universities in India and beyond.
7. Thorough and Detailed: The book explains topics thoroughly, making sure everything is easy to grasp.
8. Curriculum- Aligned: It is aimed at B.E. /B. Tech. students in fields like Computer Science, IT, Electronic engineering, and more.
9. Research Gateway: This book is useful for students, teachers, and researchers opening doors for new ideas in quantum computing.
10. Assessment Tools: Each chapter includes multiple- choice questions with answers, as well as short questions and exercises that match current exam patterns.
11. Illustrative Approach: The book has many examples to help readers apply what they learn in practical labs.
12. Hands-On Learning: All lab exercises are tested with the IBM Qiskit Toolkit, ensuring they work well in Practice.
13. Fueling Intellectual Curiosity: This book sparks interest in those wanting to become quantum engineers, deepening their understanding of Quantum Technologies. Dive into the exciting world of quantum computing, where complex ideas become clear, and curiosity leads to deep understanding!

Table of Contents

Chapter 1: Quantum Computing and its Components. **Chapter 2:** Math Foundation for Quantum Computing. **Chapter 3:** Quantum Circuits Design. **Chapter 4:** Quantum Algorithms. **Chapter 5:** Computational Lower Bound Complexity for Quantum Circuits. **Chapter 6:** Quantum Error Correction. **Chapter 7:** Quantum Cryptography. **Appendix:** Experiments in Quantum Computing Lab. (using Python). **Index**



Author

Dr. Rajiv Chopra has a Doctorate in Computer Science from Banasthali Vidyapith University. The author is M. Tech. in Information Technology from GGSIPU, Delhi. He did BE (CSE) from SDM College of Engg. and Technology, Dharwad and MIT from MAHE. He is working as an Associate Professor in CSE Department at Guru Tegh Bahadur Institute of Information Technology, GGSIPU Delhi. As an educator he has contributed to 21 research publications in Refereed, cited International Conferences and International Journals and attended 21 conferences, workshops, FDPs and seminars. He is a prolific author with 26 Text and Reference books to his credit, for B. Tech. (CSE/IT), M. Tech. (CSE/IT), BCA, MCA and other courses of different Universities of India.

