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	Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright Page -- Contents -- Preface -- Chapter 1 Comparative Analysis of MOSFET and FinFET -- 1.1 Introduction -- 1.1.1 Scaling Issue -- 1.1.2 Problems in MOSFET -- 1.2 Double Gate -- 1.3 Advantages and Disadvantage of MOSFET -- 1.4 MOSFET Drawbacks -- 1.5 FinFET -- 1.6 SOI-FinFET -- 1.7 Issues with FinFET-Based Technology -- 1.8 Advantage of FinFET -- 1.9 Drawbacks of FinFET -- 1.10 Applications of FinFET Technology -- 1.11 Conclusion -- References -- Chapter 2 Nanosheet FET for Future Technology Scaling -- 2.1 Introduction -- 2.2 Device Description and Simulation Parameters -- 2.2.1 Analysis of the Results Obtained -- 2.2.2 Impact of Variation in Width Across Various Thickness Values on Device Characteristics -- 2.2.3 Transfer Characteristics -- 2.2.4 Impact of Geometrical Variations on ON Current -- 2.2.5 Impact of Geometrical Variations on OFF-Current -- 2.2.6 Impact of Geometrical Variations on Switching Ratio -- 2.2.7 Impact of Geometrical Variations on Threshold Voltage -- 2.2.8 Impact of Geometrical Variations on Subthreshold Swing -- 2.2.9 Impact of Geometrical Variations on DIBL

-- 2.2.10 Comparison with Previous Works -- 2.3 Conclusions -- References -- Chapter 3 Comparison of Different TFETs: An Overview -- 3.1 Introduction -- 3.2 Tunnel FET -- 3.3 Gate Engineering -- 3.3.1 Oxide-Thickness and Dielectric-Constant of Gateoxide -- 3.3.2 Multiple Gates -- 3.3.3 Spacer Engineering -- 3.4 Tunneling-Junction Engineering -- 3.4.1 Doping of Source -- 3.4.2 Heterojunctions -- 3.5 Materials Engineering -- 3.5.1 Germanium -- 3.5.2 III-V Semiconductors -- 3.5.3 Nanowires -- 3.6 Conclusion -- References -- Chapter 4 GaAs Nanowire Field Effect Transistor -- 4.1 Introduction -- 4.1.1 Semiconductor Nanowires -- 4.1.2 Metal Nanowires -- 4.1.3 Oxide Nanowires -- 4.1.4 Hybrid Nanowires.

4.1.5 Biological Nanowires -- 4.2 Properties of Nanowires -- 4.2.1 Electrical Properties of Nanowire -- 4.2.2 Mechanical Properties -- 4.2.3 Optical Properties of Nanowire -- 4.2.4 Nonlinear Optical Properties -- 4.2.5 Photovoltaic Properties -- 4.3 Nanowire-FET -- 4.4 Proposed Work (GaAs Nanowire-FET) -- 4.5 Conclusion -- References -- Chapter 5 Graphene Nanoribbon for Future VLSI Applications: A Review -- 5.1 Introduction -- 5.1.1 Significance of Nano-Scale Reign -- 5.1.2 Importance of Repeaters -- 5.1.3 Interconnect Models -- 5.1.4 Lumped Model -- 5.1.5 Distributed Model -- 5.1.6 Aluminum and Copper as Interconnects -- 5.1.7 Graphene Nanoribbon as Interconnects -- 5.1.8 Classification of GNRs -- 5.1.9 Fundamental Physics -- 5.1.10 According to Structure and Conductivity -- 5.1.11 GNR Field Effect Transistor (GNRFET) -- 5.1.12 Model Development of GNRFET -- 5.1.13 Pros and Cons of GNRFET -- 5.2 Future Applications of Graphene and Graphene-Based FETs -- References -- Chapter 6 Ferroelectric Random Access Memory (FeRAM) -- 6.1 Introduction -- 6.1.1 Basic Characteristics of Ferroelectric Capacitors -- 6.1.2 FRAM Fabrication Process -- 6.2 Structure of Ferroelectric Memory Cells in Capacitor-Type FRAM Devices -- 6.2.1 A Capacitor-Type FRAM with a Memory Cell Resembling DRAM -- 6.3 Write/Read Operations in the FRAM Using a Capacitor- Type Memory Cell that Resembles a DRAM -- 6.4 Other Capacitor-Type FRAM -- 6.5 FRAM of FET Type -- 6.6 Memory Utilizing a Ferroelectric Tunnel Junction -- 6.6.1 Previous Ferroelectric Memory Designs -- 6.7 Cross Point Matrix Array -- 6.8 Ferroelectric Shadow RAMs -- 6.9 2T2C Ferroelectric RAM Architecture -- 6.9.1 Evaluation of FRAM Devices' Reliability -- 6.9.2 Comparative Analysis of FeRAM to Other Memory Technologies -- 6.10 FeRAM vs. EEPROM -- 6.11 FeRAM vs. Static RAM -- 6.12 FeRAM vs. Dynamic RAM.

6.13 FeRAM vs. Flash Memory -- 6.13.1 Uses of FRAM Devices -- 6.14 Conclusion and Upcoming Trends -- References -- Chapter 7 Applications of AI/ML Algorithms in VLSI Design and Technology -- 7.1 Introduction -- 7.2 Artificial Intelligence and Machine Learning -- 7.3 AI/ML Algorithms -- 7.4 Supervised Machine Learning (SML) -- 7.5 Classification Techniques -- 7.6 K-Nearest Neighbors (KNN) -- 7.7 Support Vector Machine (SVM) -- 7.8 Linearly Separable Classification -- 7.9 Decision Tree Classifier (DTC) -- 7.10 Performance Measures in Classification -- 7.11 Unsupervised Machine Learning (UML) -- 7.12 Hierarchical Clustering -- 7.13 Partitional Clustering -- 7.14 K-Means -- 7.15 Fuzzy (soft) Clustering -- 7.16 Cluster Validation Measures -- 7.17 Internal Clustering Validation Measures -- 7.18 External Clustering Validation Criteria -- 7.19 Limitation and Challenges - VLSI -- References -- Chapter 8 Advancement of Neuromorphic Computing Systems with Memristors -- 8.1 Introduction -- 8.1.1 Evolution in Neural Networks -- 8.1.2 Study Plan and Difficulties in Exhibiting Effective Neuromorphic Computing Systems -- 8.1.3 Hardware for Neuromorphic Systems -- 8.1.4 Device-Level Perspective -- 8.1.5

Electrical Circuits to Realize Neurons -- 8.1.6 Broad Applications of Neuromorphic Computing -- 8.2 Summary -- References -- Chapter 9 Neuromorphic Computing and Its Application -- 9.1 Introduction -- 9.2 Evolution of Neuroinspired Computing Chips -- 9.3 Science Behind Brain Physics -- 9.4 Limitations of Semiconductor Devices -- 9.5 Various Combination of Networks -- 9.5.1 ANN-SNN Hybrid -- 9.5.2 Convolutional Neural Network (CNN)-Recurrent Neural Network (RNN) Hybrid -- 9.5.3 Deep Reinforcement Learning (DRL) Hybrid -- 9.5.4 Ensemble Hybrid -- 9.5.5 Different Types of Neural Networks -- 9.6 Artificial Intelligence.

9.7 A Summary of Neuromorphic Hardware Methodologies -- 9.8 Neuromorphic Computing in Robotics -- 9.8.1 Sensor Processing and Perception -- 9.8.2 Motor Control and Movement -- 9.8.3 Neuromorphic Hardware Advances -- 9.8.4 Brain-Inspired Learning Algorithms -- 9.9 Challenges in Neuromorphic Computing -- 9.9.1 Language Understanding and Interpretation -- 9.9.2 Sentiment Analysis and Emotion Recognition -- 9.9.3 Natural Language Generation -- 9.9.4 Language Translation and Multilingual Processing -- 9.9.5 Dialogue Systems and Conversational Agents -- 9.9.6 Language Modeling and Prediction -- 9.9.7 Text Summarization and Information Extraction -- 9.10 Applications of Neuromorphic Computing -- 9.10.1 Medicines -- 9.10.2 Artificial Intelligence [AI] -- 9.10.3 Imaging -- 9.10.4 Sensor Processing and Perception -- 9.10.5 Motor Control and Movement -- 9.10.6 Autonomous Navigation and Mapping -- 9.10.7 Human-Robot Interaction and Collaboration -- 9.10.8 Adaptive and Learning Capabilities -- 9.10.9 Task Planning and Decision Making -- 9.10.10 Robustness and Fault Tolerance -- 9.10.11 Some More Applications -- 9.11 Conclusion -- References -- Chapter 10 Performance Evaluation of Prototype Microstrip Patch Antenna Fabrication Using Microwave Dielectric Ceramic Nanocomposite Materials for X-Band Applications -- 10.1 Introduction -- 10.2 Materials and Methods -- 10.3 Results and Discussion -- 10.4 Conclusions -- References -- Chapter 11 Build and Deploy a Smart Speaker with Biometric Authentication and Advanced Voice Interaction Capabilities -- 11.1 Introduction -- 11.2 Cybersecurity Risk as Smart Speakers Don't Have an Authentication Process -- 11.3 Related Work -- 11.4 Overview of Biometric Authentication and the Voice Algorithm-Based Smart Speaker -- 11.5 Conclusion and Discussion -- Acknowledgements -- References.

Chapter 12 Boron-Based Nanomaterials for Intelligent Drug Delivery Using Computer-Aided Tools -- 12.1 Introduction -- 12.2 Computational Details -- 12.3 Results and Discussion -- 12.3.1 Interaction of Anisamide with 7-Membered Ring of B40 -- 12.3.2 Interaction of Anisamide with 6-Membered Ring of B40 -- 12.3.3 Interaction of 5F-Uracil with the Heptagonal Ring of B40+7AN Complex (AN on Heptagonal Ring) -- 4012.3.4 Interaction of 5F-Uracil with the Hexagonal Ring of B40+7AN Complex (AN on Heptagonal Ring) -- 12.3.5 Interaction of 5F-Uracil with the Heptagonal Ring of B40+6AN Complex (AN on Hexagonal Ring) -- 12.3.6 Interaction of 5F-Uracil with the Hexagonal Ring of B40+6AN Complex (AN on Hexagonal Ring) -- 12.3.7 Stability in Aqueous Solution -- 12.3.8 Drug Release -- Acknowledgement -- Conflict of Interest -- References -- Chapter 13 Design and Analysis of Rectangular Wave Guide Using an HFSS Simulator -- 13.1 Background -- 13.2 Introduction -- 13.3 Mathematical Computations -- 13.4 Numerical Analysis -- 13.5 Conclusion -- References -- Index -- Also of Interest -- EULA.

Sommario/riassunto

With its in-depth exploration of the close connection between microelectronics, AI, and VLSI technology, this book offers valuable

insights into the cutting-edge techniques and tools used in VLSI design automation, making it an essential resource for anyone seeking to stay ahead in the rapidly evolving field of VLSI design. Very large-scale integration (VLSI) is the inter-disciplinary science of utilizing advanced semiconductor technology to create various functions of computer system. This book addresses the close link of microelectronics and artificial intelligence (AI). By combining VLSI technology, a very powerful computer architecture confinement is possible. To overcome problems at different design stages, researchers introduced artificial intelligent (AI) techniques in VLSI design automation. AI techniques, such as knowledge-based and expert systems, first try to define the problem and then choose the best solution from the domain of possible solutions. These days, several CAD technologies, such as Synopsys and Mentor Graphics, are specifically created to increase the automation of VLSI design. When a task is completed using the appropriate tool, each stage of the task design produces outcomes that are more productive than typical. However, combining all of these tools into a single package offer has drawbacks. We can't really use every outlook without sacrificing the efficiency and usefulness of our output. The researchers decided to include AI approaches into VLSI design automation in order to get around these obstacles. AI is one of the fastest growing tools in the world of technology and innovation that helps to make computers more reliable and easy to use. Artificial Intelligence in VLSI design has provided high-end and more feasible solutions to the difficulties faced by the VLSI industry. Physical design, RTL design, STA, etc. are some of the most in-demand courses to enter the VLSI industry. These courses help develop a better understanding of the many tools like Synopsis. With each new dawn, artificial intelligence in VLSI design is continually evolving, and new opportunities are being investigated.