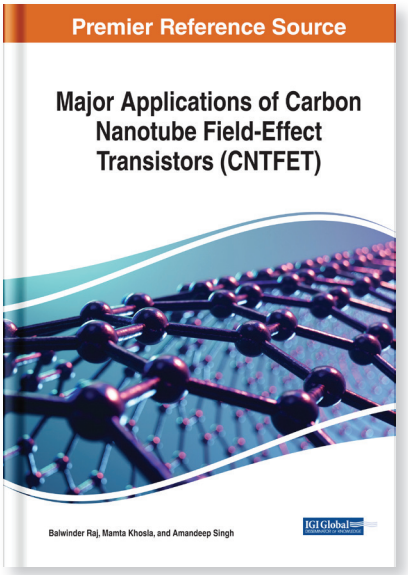
Major Applications of Carbon Nanotube Field-Effect Transistors (CNTFET)



Part of the Advances in Computer and Electrical Engineering Book Series

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Description:

With recent advancements in electronics, specifically nanoscale devices, new technologies are being implemented to improve the properties of automated systems. However, conventional materials are failing due to limited mobility, high leakage currents, and power dissipation. To mitigate these challenges, alternative resources are required to advance electronics further into the nanoscale domain. Carbon nanotube field-effect transistors are a potential solution yet lack the information and research to be properly utilized.

Major Applications of Carbon Nanotube Field-Effect Transistors (CNTFET) is a collection of innovative research on the methods and applications of converting semiconductor devices from micron technology to nanotechnology. The book provides readers with an updated status on existing CNTs, CNTFETs, and their applications and examines practical applications to minimize short channel effects and power dissipation in nanoscale devices and circuits. While highlighting topics including interconnects, digital circuits, and single-wall CNTs, this book is ideally designed for electrical engineers, electronics engineers, students, researchers, academicians, industry professionals, and practitioners working in nanoscience, nanotechnology, applied physics, and electrical and electronics engineering.

ISBN: 9781799813934 **Release Date:** December, 2019 **Copyright:** 2020 **Pages:** 300

Topics Covered:

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- DRAM Cell Design
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