

From Bits to Qubits: Navigating the Landscape of Modern Electronics

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Abstract: The study delves into the transformative journey of electronics technology. Through a historical overview, it traces the evolution of miniaturization trends and explores the emergence of quantum bits (qubits) with their unique properties of superposition and entanglement. Comparative analysis reveals the advantages of quantum systems in addressing complex challenges. Expert interviews provide practical insights, while the review of experimental findings offers empirical validation of qubit behavior. Challenges in qubit stability and quantum-classical integration are discussed, emphasizing the crucial role of empirical research in shaping the trajectory of electronics technology.

Keywords: Modern Electronics, Bits, Qubits

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