



Introducing Technology Computer-Aided Design (TCAD)

Circuits, Systems, and Devices

Circuits and Signal Processing

Optoelectronic Circuits in Nanometer CMOS Technology

The Dark Side of Silicon

Advances in Monolithic Microwave Integrated Circuits for Wireless Systems: Modeling and Design Technologies

*In 2020, areas of particular importance for technology trends will include biotechnology, nanotechnology, materials technology, and information technology. This report, the companion document to The Global Technology Revolution 2020, Executive Summary (Silberglitt et al., MG-475-NIC, 2006), assesses in detail a sample of 29 countries with respect to their ability to acquire and implement 16 key technology applications.*

*This book explains the application of recent advances in computational intelligence – algorithms, design methodologies, and synthesis techniques – to the design of integrated circuits and systems. It highlights new biasing and sizing approaches and optimization techniques and their application to the design of high-performance digital, VLSI, radio-frequency, and mixed-signal circuits and systems. This first of two related volumes addresses the design of analog and mixed-signal (AMS) and radio-frequency (RF) circuits, with 17 chapters grouped into parts on analog and mixed-signal applications, and radio-frequency design. It will be of interest to practitioners and researchers in computer science and electronics engineering engaged with the design of electronic circuits.*

*The gm/ID Methodology, a sizing tool for low-voltage analog CMOS Circuits*

*More than Moore*

*Design and Modeling of Low Power VLSI Systems*

*Creating High Value Micro/Nanoelectronics Systems*