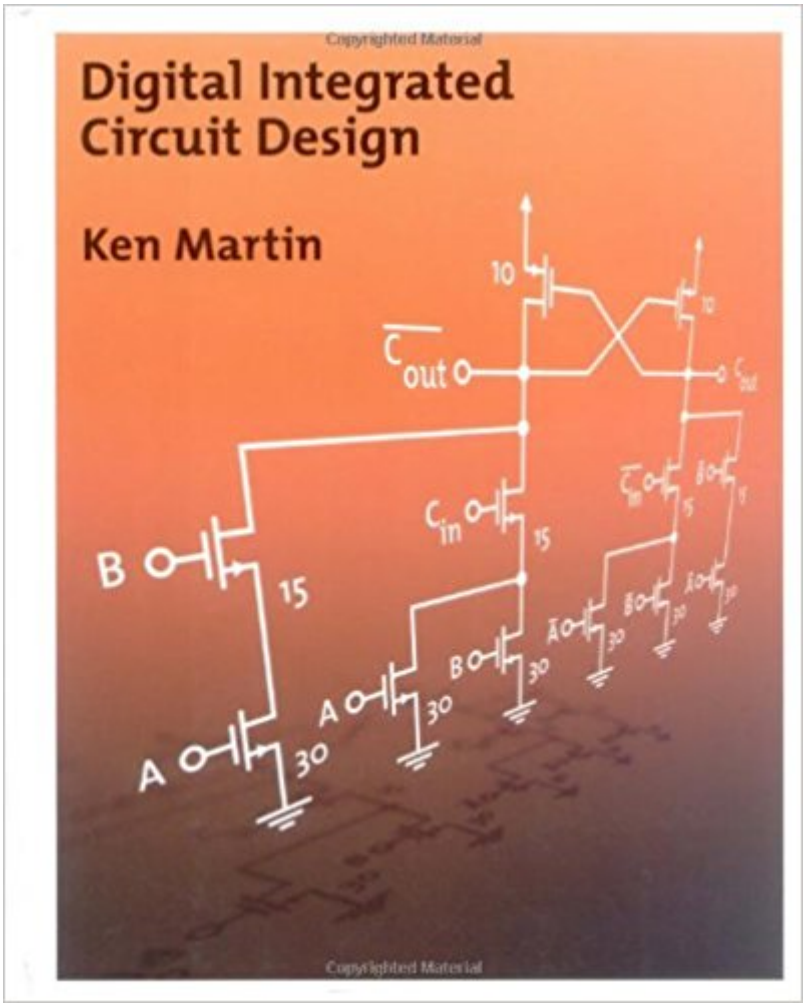
Digital Integrated Circuit Design (The Oxford Series In Electrical And Computer Engineering)



Synopsis

Working from the fundamentals of transistor-level design and building up to system-level considerations, Digital Integrated Circuit Design shows students with minimal background in electronics how to design state-of-the-art high performance digital integrated circuits. Ideal as an upper-level undergraduate text, it can also be used in first-year graduate courses and as a reference for practicing engineers. Digital Integrated Circuit Design: Â Presents transistor-level details first, building up to system considerations Â Emphasizes CMOS technology but also includes in-depth explanations of designing in bipolar, BiCMOS, and GaAs technologies Â Features modern, well-designed examples and problems Â Covers important system-level considerations such as timing, pipelining, clock distribution, and system building blocks in detail Â Discusses key elements of semiconductor physics, integrated circuit processing, transistor-level design, logic-level design, system-level design, testing, and moreÂ Provides physical and intuitive explanations throughout Â Emphasizes conceptual thinking and design methodology over detailed circuit analysis techniques

Book Information

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Customer Reviews

Ken Martin is at University of Toronto.

Great book,

This is a good intoductory book on Digital Circuits and VLSI design. Apart from having a few jumps here and there, the book is definitely readable. I would recommend this book to you if this is your first course on digital circuits. However if you are really serious about this subject, you can read Principles of CMOS VLSI Design by Neil Weste and Kamran Eshraghain or Digital Integrated Circuits by Anantha Chandrakasan & Borivoje Nikolic. This book is definitely not for advanced readers.

The book seems to assume you've read ahead and know something about the future topics in the very beginning. I often found myself frustrated and scratching my head at some explanations. Many of the explanations could be worded / phrased better. I ended up using the book and accompanying online lecture notes by Rabaey as a reference all the time.

An excellent book for IC Designers. It keeps disappearing from my desk.

of the MOS Transistor (The Oxford Series in Electrical and Computer Engineering) Operation and Modeling of the MOS Transistor: Special MOOC Edition (The Oxford Series in Electrical and Computer Engineering) Circuits and Systems: A Modern Approach (The Oxford Series in Electrical and Computer Engineering)