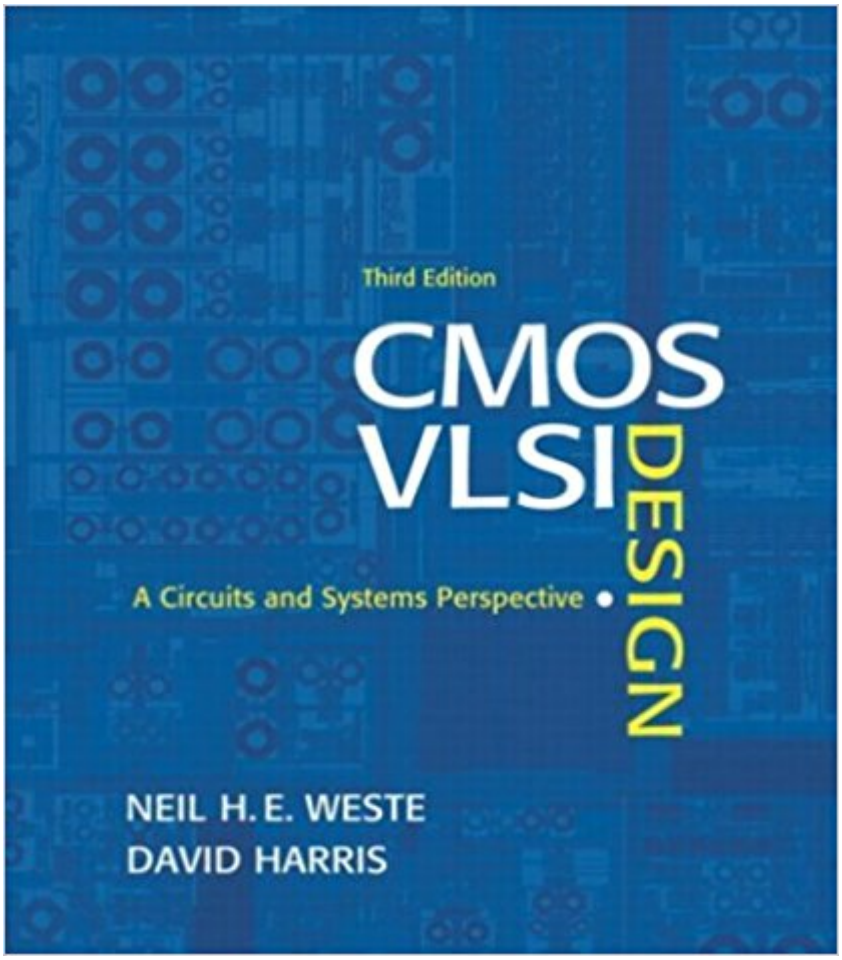
CMOS VLSI Design: A Circuits And Systems Perspective (3rd Edition)



Synopsis

The extensively revised 3rd edition of CMOS VLSI Design details modern techniques for the design of complex and high performance CMOS Systems-on-Chip. The authors draw upon extensive industry and classroom experience to explain modern practices of chip design. The introductory chapter covers transistor operation, CMOS gate design, fabrication, and layout at a level accessible to anyone with an elementary knowledge of digital electornics. Later chapters beuild up an in-depth discussion of the design of complex, high performance, low power CMOS Systems-on-Chip.

Book Information

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Customer Reviews

I recently taught a senior undergraduate/first year graduate introductory course with VLSI with this book as the text. I found this book to be confusing and frustrating to the students. In order to lecture on VLSI topics in what I thought was a logical order, I had to jump around in the text book. My main complaint is that the book is organized more like an encylopedia and not like a textbook. As such I think it makes a very good reference for those with previous training or experience in the VLSI field, but confusing and unhelpful for those learning the field for the first time.Oddly, the second edition of Weste (Weste and Eshragian) is far better organized and much more coherent in its development of topics within VLSI. I found myself often going back to the second edition when I was preparing lectures.A second complaint is that the book introduces logical effort as a primary topic early on in the discussion of switching delays, in my opinion at the expense of discussion of the fundamental

circuit mechanisms in switching delay (which again are discussed in detail in Weste 2nd Ed). The emphasis on logical effort continues throughout the text. Again, a choice that is reasonable if your audience is experienced engineers but not for an introductory course.I will probably change texts for next year, most likely to the text by Rabaey et al, which appears to be much better organized for an introduction to VLSI. In sum, Weste 3rd edition might make a good text for a second or third course in VLSI, or a good reference for practitioners in the field, but not a good text for a first course in VLSI.

CMOS VLSI Design: A Circuits and Systems Perspective (3rd Edition) CMOS VLSI Design: A Circuits and Systems Perspective Circuits, Interconnections, and Packaging for Vlsi (Addison-Wesley VLSI systems series) CMOS Nanoelectronics: Analog and RF VLSI Circuits Analog Design for CMOS VLSI Systems (The Springer International Series in Engineering and Computer Science) Design of 3D Integrated Circuits and Systems (Devices, Circuits, and Systems) Chip Design for Submicron VLSI: CMOS Layout and Simulation Advances in 3D Integrated Circuits and Systems (Series on Emerging Technologies in Circuits and Systems) Low-Voltage/Low-Power Integrated Circuits and Systems: Low-Voltage Mixed-Signal Circuits (IEEE Press Series on Microelectronic Systems) The Design of CMOS Radio-Frequency Integrated Circuits, Second Edition CMOS Circuit Design, Layout, and Simulation, 3rd Edition (IEEE Press Series on Microelectronic Systems) Design of Analog CMOS Integrated Circuits CMOS Digital Integrated Circuits Analysis & Design Introduction to VLSI Circuits and Systems VLSI Design Techniques for Analog and Digital Circuits (McGraw-Hill Series in Electrical Engineering) Introduction to VLSI Systems: A Logic, Circuit, and System Perspective Dynamic Offset Compensated CMOS Amplifiers (Analog Circuits and Signal Processing) CMOS and Beyond: Logic Switches for Terascale Integrated Circuits CMOS Digital Integrated Circuits: A First Course Principles of Transistor Circuits, Eighth Edition: Introduction and guide to the design of amplifiers, function generators, receivers and digital circuits