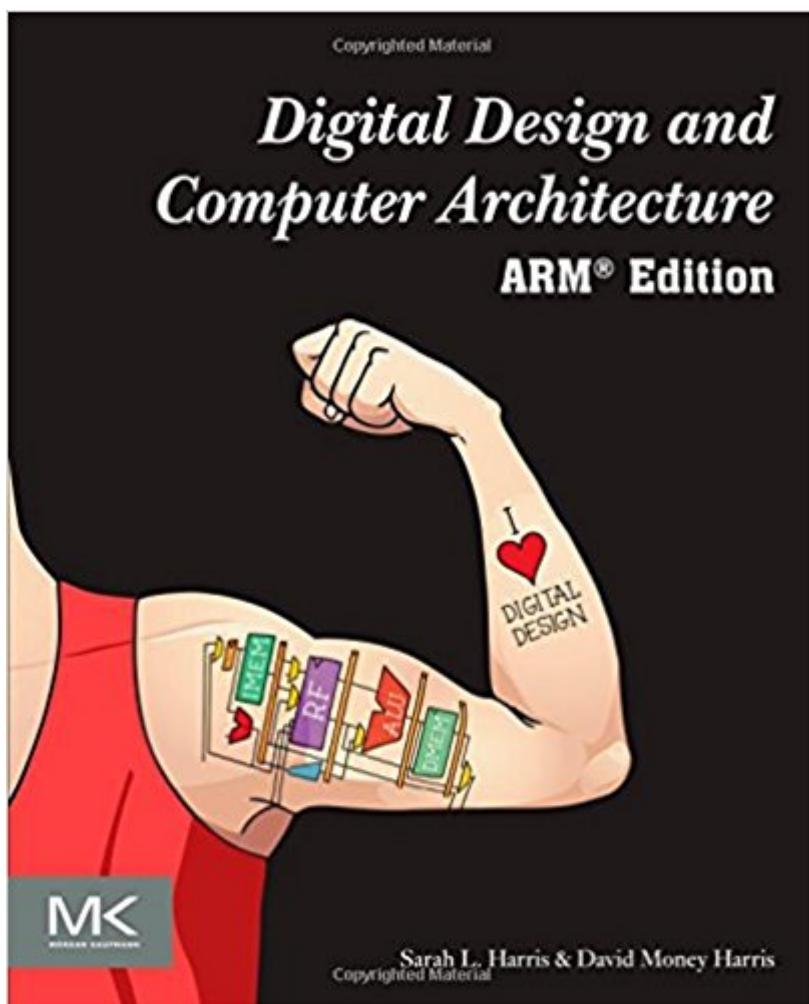The book was found

Digital Design And Computer Architecture: ARM Edition

Synopsis

Digital Design and Computer Architecture: ARM Edition covers the fundamentals of digital logic design and reinforces logic concepts through the design of an ARM microprocessor. Combining an engaging and humorous writing style with an updated and hands-on approach to digital design, this book takes the reader from the fundamentals of digital logic to the actual design of an ARM processor. By the end of this book, readers will be able to build their own microprocessor and will have a top-to-bottom understanding of how it works. Beginning with digital logic gates and progressing to the design of combinational and sequential circuits, this book uses these fundamental building blocks as the basis for designing an ARM processor. SystemVerilog and VHDL are integrated throughout the text in examples illustrating the methods and techniques for CAD-based circuit design. The companion website includes a chapter on I/O systems with practical examples that show how to use the Raspberry Pi computer to communicate with peripheral devices such as LCDs, Bluetooth radios, and motors. This book will be a valuable resource for students taking a course that combines digital logic and computer architecture or students taking a two-quarter sequence in digital logic and computer organization/architecture.Covers the fundamentals of digital logic design and reinforces logic concepts through the design of an ARM microprocessor.Features side-by-side examples of the two most prominent Hardware Description Languages (HDLs)Ã¢â ¬â ¢SystemVerilog and VHDLÃ¢â ¬â ¢which illustrate and compare the ways each can be used in the design of digital systems.Includes examples throughout the text that enhance the readerÃ¢â ¬â„¢s understanding and retention of key concepts and techniques.The Companion website includes a chapter on I/O systems with practical examples that show how to use the Raspberry Pi computer to communicate with peripheral devices such as LCDs, Bluetooth radios, and motors. The Companion website also includes appendices covering practical digital design issues and C programming as well as links to CAD tools, lecture slides, laboratory projects, and solutions to exercises.

Book Information

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Customer Reviews

"...this excellent book covers a wide spectrum of digital design and computer architecture and organizationÃ¢â ¬Â¦a necessary book for many digital design enthusiasts in the years to come."--Computing Reviews,Digital Design and Computer Architecture

Sarah L. Harris is an Associate Professor at the University of Nevada, Las Vegas. She received her B.S. at B.Y.U. and her M.S. and Ph.D. from Stanford University. She has worked at Hewlett Packard, Nvidia, and various other places. David Money Harris is the Harvey S. Mudd Professor of Engineering Design at Harvey Mudd College. He received his S.B. and M.Eng. degrees from MIT and his Ph.D. from Stanford University. He has designed chips at Intel, Hewlett Packard, Sun Microsystems, and Broadcom. When he is not teaching or designing chips, he can often be found exploring the mountains and deserts of Southern California with his three sons.

This book is a great service to the education community. Being able to morph the ARM design smoothly from the earlier design / methodology we used to teach MIPS processors is great. It simplifies teaching, and I think teaching ARM is a better choice than MIPS because it is more relevant from a practical point of view.

An awesome and comprehensive book.

I love this book

Excellent book for beginners

Brand new book and Armv4 old technology :(Te assembly language is way out of date.

Digital Design and Computer Architecture: ARM Edition Digital Logic Design and Computer Organization with Computer Architecture for Security Computer Organization and Design MIPS Edition, Fifth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) Computer Organization and Design, Fourth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) ISO 13753:1998, Mechanical vibration and shock - Hand-arm vibration - Method for measuring the vibration transmissibility of resilient materials when loaded by the hand-arm system Self-Checking and Fault-Tolerant Digital Design (The Morgan Kaufmann Series in Computer Architecture and Design) Digital Design and Computer Architecture, Second Edition Foundations of Analog and Digital Electronic Circuits (The Morgan Kaufmann Series in Computer Architecture and Design) Digital Design and Computer Architecture 1st Grade Computer Basics : The Computer and Its Parts: Computers for Kids First Grade (Children's Computer Hardware Books) inside: Architecture and Design: A guide to the practice of architecture (what they don't teach you in architecture school) Digital Drawing for Landscape Architecture: Contemporary Techniques and Tools for Digital Representation in Site Design Skew-Tolerant Circuit Design (The Morgan Kaufmann Series in Computer Architecture and Design) Digital Storytelling: Capturing Lives, Creating Community (Digital Imaging and Computer Vision) Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills) Fast and Effective Embedded Systems Design, Second Edition: Applying the ARM mbed See MIPS Run, Second Edition (The Morgan Kaufmann Series in Computer Architecture and Design) Bitcoin Basics: Cryptocurrency, Blockchain And The New Digital Economy (Digital currency, Cryptocurrency, Blockchain, Digital Economy) Photography: DSLR Photography Secrets and Tips to Taking Beautiful Digital Pictures (Photography, DSLR, cameras, digital photography, digital pictures, portrait photography, landscape photography) Photography: Complete Guide to Taking Stunning,Beautiful Digital Pictures (photography, stunning digital, great pictures, digital photography, portrait ... landscape photography, good pictures)