Computer Hardware Engineering Books

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Simplified Computer Hardware Course Springer Science & Business Media
General literature -- Introductory and Survey.
Computer Engineering McGraw-Hill Companies
Everything you need to know to pursue and begin a career in one of today's most promising fields, Computer Hardware Engineering. From the history of the profession to detailed information on getting started, relative descriptions and appeals of all the different types of fields within computer hardware engineering, the skills and qualifications needed, the attractive features and drawbacks of such a career, a detailed description of the job, work duties and environment, all of the opportunities within the field including those within government, stories of working computer engineers and details on advancement, specializations, earnings and more, as well as a glossary with up-to-date information including the best education and training references and all relative professional associations, Careers in Computer Hardware Engineering is the number one go-to book for anyone considering a career in this exciting field of work.
Don't Make Me Use My Hardware Engineer Voice Lambert Academic Publishing, 2012
The fourth edition of this work provides a readable, tutorial based introduction to the subject of computer hardware for undergraduate computer scientists and engineers and includes a companion website to give lecturers additional notes.
Computer Hardware Engineer Computer Hardware EngineerCareers in Computer Hardware Engineering
Discusses what hardware computer engineers do and how to prepare for a career in this field.
Careers in Computer Hardware Engineering Oxford University Press
There are many books on computers, networks, and software engineering but none that integrate the three with applications. Integration is important because, increasingly, software dominates the performance, reliability, maintainability, and availability of complex computer and systems. Books on software engineering typically portray software as if it exists in a vacuum with no relationship to the wider system. This is wrong because a system is more than software. It is comprised of people, organizations, processes, hardware, and software. All of these components must be considered in an integrative fashion when designing systems. On the other hand, books on computers and networks do not demonstrate a deep understanding of the intricacies of developing software. In this book you will learn, for example, how to quantitatively analyze the performance, reliability, maintainability, and availability of computers, networks, and software in relation to the total system. Furthermore, you will learn how to evaluate and mitigate the risk of deploying integrated systems. You will learn how to apply many models dealing with the optimization of systems. Numerous quantitative examples are provided to help you understand and interpret model results. This book can be used as a first year graduate course in computer, network, and software engineering; as an on-the-job reference for computer, network, and software engineers; and as a reference for these disciplines.
Careers for Tech Girls in Hardware Engineering Oxford University Press, USA
- 5" x 8" - 118 lined pages - College rule line spacing - If you love computer hardware engineering you'll love this notebook. - 5x8 size makes it the perfect notebook for taking notes at work, while traveling, or taking with you anywhere you go.. - College rule lined pages let you write lots of notes and drawings. - Soft, matte finish cover is a joy to hold. - Makes a great gift for your favorite computer hardware engineers and an awesome present for computer hardware engineering departments.
Computer Engineering Springer Science & Business Media
Intelligent readers who want to build their own embedded computer systems-- installed in everything from cell phones to cars to handheld organizers to refrigerators-- will find this book to be the most in-depth, practical, and up-to-date guide on the market. Designing Embedded Hardware carefully steers between the practical and philosophical aspects, so developers can both create their own devices and gadgets and customize and extend off-the-shelf systems. There are hundreds of books to choose from if you need to learn programming, but only a few are available if you want to learn to create hardware. Designing Embedded Hardware provides software and hardware engineers with no prior experience in embedded systems with the necessary conceptual and design building blocks to understand the architectures of embedded systems. Written to provide the depth of coverage and real-world examples developers need, Designing Embedded Hardware also provides a road-map to the pitfalls and traps to avoid in designing embedded systems. Designing Embedded Hardware covers such essential topics as: The principles of developing computer hardware Core hardware designs Assembly language concepts Parallel I/O Analog-digital conversion Timers (internal and external) UART Serial Peripheral Interface Inter-Integrated Circuit Bus Controller Area Network (CAN) Data Converter Interface (DCI) Low-power operation This invaluable and eminently useful book gives you the practical tools and skills to develop, build, and program your own application-specific computers.
Computer Hardware Course The Rosen Publishing Group, Inc
As computer systems grow more and more complex, it has become clear that utilizing diagnostic techniques early on plays a critical role in reducing overall lifetime product cost. As a result, strong diagnostic skills on the part of today's designers are at a premium. This book offers straightforward information on the basic principles underlying all diagnostics.
PC Hardware Engineering on My Pocket The Rosen Publishing Group, Inc
Microcontrollers and Microcomputers: Principles of Software and Hardware Engineering, Second Edition, is an ideal introductory text for an embedded system or microcontroller course. While most texts discuss only one specific microcontroller, this book offers a unique approach by covering the common ground among all microcontrollers in one volume. Since the text does not focus on a particular processor, it can be used with processor-specific material--such as manufacturer's data sheets and reference manuals--or with texts, including author Fredrick M. Cady's Software and Hardware Engineering: Motorola M68HC11 or Software and Hardware Engineering: Motorola M68HC12. Now fully updated, the second edition covers the fundamental operation of standard microcontroller features, including parallel and serial I/O interfaces, interrupts, analog-to-digital conversion, and timers, focusing on the electrical interfaces as needed. It devotes one chapter to showing how a variety of devices can be used, and emphasizes C program software development, design, and debugging.
Careers in Computer Engineering Springer Science & Business Media
Market_Desc: Computer Programmers, Software Engineers, System Designers. Special Features: · Provides readers with an understanding of underlying, non-changing basics of computers so that they can make knowledgeable decisions about systems.· New examples cover a broad spectrum of new technology, including Pentium III, Intel I-64 architecture, Unicode, Web, and multimedia· Carefully and patiently introduces readers to new technological concepts, so that they are not overwhelmed by challenging materials, but instead build a deep understanding of what makes computer systems tick. About The Book: This newly revised reference introduces fundamental computer hardware, systems software, and data concepts. It provides a careful, in depth, non-engineering introduction to the inner workings of modern computer systems. This edition features the latest advances in operating system design and computer interconnection.
Computers "O'Reilly Media, Inc."
The Principles of Computer Hardware, now in its third edition, provides a readable, tutorial based introduction to the subject for undergraduate computer scientists and engineers.
Designing Embedded Hardware Computech Publications Limited
Advances in Computer and Information Sciences and Engineering

includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. Advances in Computer and Information Sciences and Engineering includes selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2007) which was part of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering (CISSE 2007).

Computers Springer Science & Business Media

Computer science is one of the hottest and most in-demand professional fields. Within computer science, hardware engineering offers many exciting career opportunities, including designing new hardware and managing computer network security. With more women entering STEM fields, this book provides a much-needed practical guide for girls who love technology. Profiles of real women working in hardware engineering provide inspiration and a behind-the-scenes look at what these jobs involve. This easy-to-follow guide highlights different types of engineering jobs that girls may want to pursue, educational requirements, and tips for a successful job search.

Computer Hardware Diagnostics for Engineers Oxford University Press, USA

This book serves both as an introduction to computer architecture and as a guide to using a hardware description language (HDL) to design, model and simulate real digital systems. The book starts with an introduction to Verilog - the HDL chosen for the book since it is widely used in industry and straightforward to learn. Next, the instruction set architecture (ISA) for the simple VeSPA (Very Small Processor Architecture) processor is defined - this is a real working device that has been built and tested at the University of Minnesota by the authors. The VeSPA ISA is used throughout the remainder of the book to demonstrate how behavioural and structural models can be developed and intermingled in Verilog. Although Verilog is used throughout, the lessons learned will be equally applicable to other HDLs. Written for senior and graduate students, this book is also an ideal introduction to Verilog for practising engineers.

The Principles of Computer Hardware Independently Published

This textbook serves as an introduction to the subject of embedded systems design, with emphasis on integration of custom hardware components with software. The key problem addressed in the book is the following: how can an embedded systems designer strike a balance between flexibility and efficiency? The book describes how combining hardware design with software design leads to a solution to this important computer engineering problem. The book covers four topics in hardware/software codesign: fundamentals, the design space of custom architectures, the hardware/software interface and application examples. The book comes with an associated design environment that helps the reader to perform experiments in hardware/software codesign. Each chapter also includes exercises and further reading suggestions. Improvements in this second edition include labs and examples using modern FPGA environments from Xilinx and Altera, which will make the material in this book applicable to a greater number of courses where these tools are already in use. More examples and exercises have been added throughout the book. “If I were teaching a course on this subject, I would use this as a resource and text. If I were a student who wanted to learn codesign, I would look for a course that at least used a similar approach. If I were an engineer or engineering manager who wanted to learn more about codesign from a very practical perspective, I would read this book first before any other. When I first started learning about codesign as a practitioner, a book like this would have been the perfect introduction.” --Grant Martin, Tensilica--

Computer Science Springer Science & Business Media

Do You Like Engineering ? and Hard-work? then you will love this Notebook / Journal. This item: I Am A Computer Hardware Engineer To Save Time Just Assume That I'm Never Wrong! is a Great Gift For People Who Love engineering. This is perfect to write in! and this is perfect for recording notes for your work It's a perfect gift for every hard worker. Journaling is one of the best activities for young children and adult. Features: Unique design This gift is travel Size / Perfect Backpack Size 6 x 9 Can be used as a travel diary, journal, notebook 120 Lined & Framed Pages for Writing You Can Make It Gift For: Birthday Christmas Valentine Or Any Occasion

Computer Architecture: A Minimalist Perspective Quantum Scientific Publishing

Computer Science: The Hardware, Software and Heart of It focuses on the deeper aspects of the two recognized subdivisions of Computer Science, Software and Hardware. These subdivisions are shown to be closely interrelated as a result of the stored-program concept. Computer Science: The Hardware, Software and Heart of It includes certain classical theoretical computer science topics such as Unsolvability (e.g. the halting problem) and Undecidability (e.g. Godel’s incompleteness theorem) that treat problems that exist under the Church-Turing thesis of computation. These problem topics explain inherent limits lying at the heart of software, and in effect define boundaries beyond which computer science professionals cannot go beyond. Newer topics such as Cloud Computing are also covered in this book. After a survey of traditional programming languages (e.g. Fortran and C++), a new kind of computer Programming for parallel/distributed computing is presented using the message-passing paradigm which is at the heart of large clusters of computers. This leads to descriptions of current hardware platforms for large-scale computing, such as clusters of as many as one thousand which are the new generation of supercomputers. This also leads to a consideration of future quantum computers and a possible escape from the Church-Turing thesis to a new computation paradigm. The book’s historical context is especially helpful during this, the centenary of Turing's birth. Alan Turing is widely regarded as the father of Computer Science, since many concepts in both the hardware and software of Computer Science can be traced to his pioneering research. Turing was a multi-faceted mathematician-engineer and was able to work on both concrete and abstract levels. This book shows how these two seemingly disparate aspects of Computer Science are intimately related. Further, the book treats the theoretical side of Computer Science as well, which also derives from Turing's research. Computer Science: The Hardware, Software and Heart of It is designed as a professional book for practitioners and researchers working in the related fields of Quantum Computing, Cloud Computing, Computer Networking, as well as non-scientist readers. Advanced-level and undergraduate students concentrating on computer science, engineering and mathematics will also find this book useful.

Fundamental Concepts in Computer Science Oxford University Press, USA

Ideal for use in microprocessor courses in engineering or computer science, Software and Hardware Engineering: Motorola M68HC12 provides an in-depth, hands-on introduction to the architecture and design of hardware and software for the Motorola M68HC12. . Gives students the tools to use the Motorola M68HC12 in real-world applications . Covers the hardware features of two versions of the M68HC12--the M68HC812A4 and the M68HC912B32 . Compares features common with the Motorola M68HC12's predecessor, the M68HC11 . Incorporates over 100 extensive programming examples . Features chapters on fuzzy logic, programming a fuzzy inference engine, and the Background Debug Module . Includes a detailed appendix covering the design of software for a debugging pod This text can be used with its companion volume, Microcontrollers and Microcomputers: Principles of Software and Hardware Engineering (OUP, 1998), or with any other book that examines the general principles of microcomputer technology. It can also stand alone in a course devoted to the M68HC12. A world wide web site provides additional information including source files for all chapter examples: http: //www.coe.montana.edu/ee/cady/books/m68hc12.htm."

Onboard Computers, Onboard Software and Satellite Operations Holt Software Assoc.

An introduction to the hardware concepts needed to analyze and design digital systems and the principles of computer hardware organization and design.

Computer engineering Cambridge University Press

This book examines computer architecture, computability theory, and the history of computers from the perspective of minimalist computing - a framework in which the instruction set consists of a single instruction. This approach is different than that taken in any other computer architecture text, and it is a bold step. The audience for this book is researchers, computer hardware engineers, software engineers, and systems engineers who are looking for a fresh, unique perspective on computer architecture. Upper division undergraduate students and early graduate students studying computer architecture, computer organization, or embedded systems will also find this book useful. A typical course title might be "Special Topics in Computer Architecture." The organization ofthe book is as follows. First, the reasons for studying such an "esoteric" subject are given. Then, the history and evolution of instruction sets is studied with an emphasis on how modern computing has features ofone instruction computing. Also, previous computer systems are reviewed to show how their features relate to one instruction computers. Next, the primary forms of one instruction set computing are examined. The theories of computation and of Turing machines are also reviewed to examine the theoretical nature of one instruction computers. Other processor architectures and instruction sets are then mapped into single instructions to illustrate the features of both types of one instruction computers. In doing so, the features of the processor being mapped are highlighted.