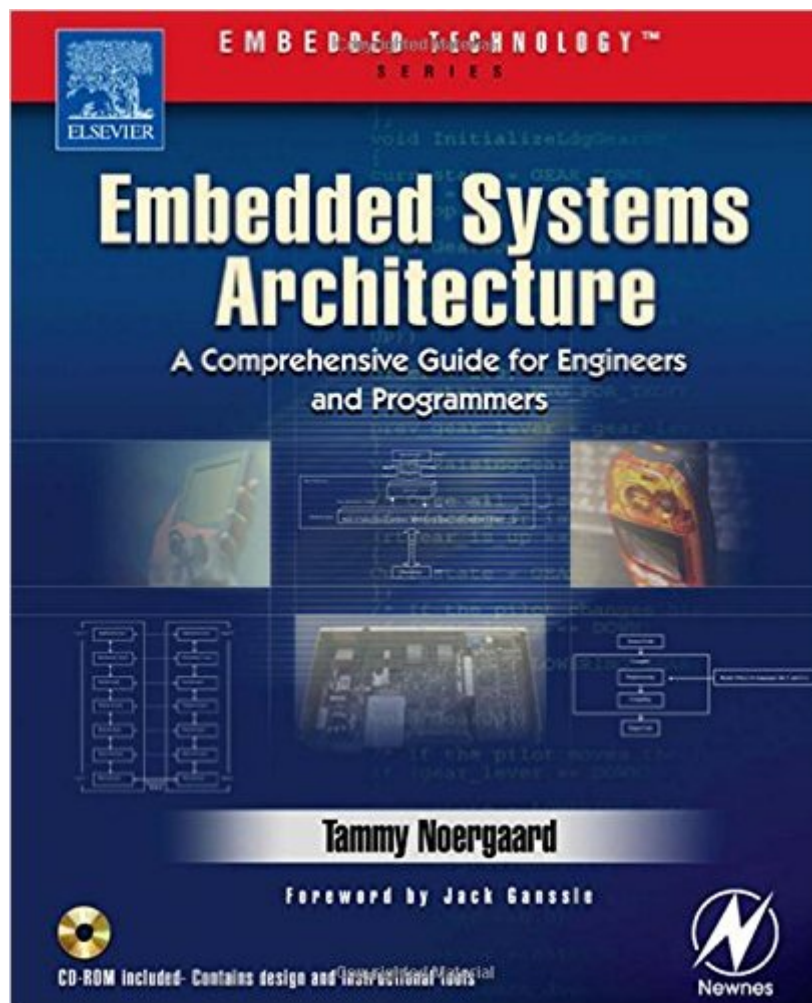


The book was found

Embedded Systems Architecture: A Comprehensive Guide For Engineers And Programmers (Embedded Technology)



Synopsis

This comprehensive textbook provides a broad and in-depth overview of embedded systems architecture for engineering students and embedded systems professionals. The book is well suited for undergraduate embedded systems courses in electronics/electrical engineering and engineering technology (EET) departments in universities and colleges, as well as for corporate training of employees. The book is a readable and practical guide covering embedded hardware, firmware, and applications. It clarifies all concepts with references to current embedded technology as it exists in the industry today, including many diagrams and applicable computer code. Among the topics covered in detail are:Â hardware components, including processors, memory, buses, and I/OÂ system software, including device drivers and operating systemsÂ use of assembly language and high-level languages such as C and JavaÂ interfacing and networkingÂ case studies of real-world embedded designsÂ applicable standards grouped by system application * Without a doubt the most accessible, comprehensive yet comprehensible book on embedded systems ever written!* Leading companies and universities have been involved in the development of the content* An instant classic!

Book Information

Series: Embedded Technology

Hardcover: 656 pages

Publisher: Newnes; 1st Edition Later Printing edition (February 24, 2005)

Language: English

ISBN-10: 0750677929

ISBN-13: 978-0750677929

Product Dimensions: 9.5 x 7.7 x 1.8 inches

Shipping Weight: 3.4 pounds

Average Customer Review: 4.1 out of 5 starsÂ Â See all reviewsÂ (32 customer reviews)

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Customer Reviews

I read through all the 5 star reviews prior to purchasing this book. I was very disaapointed to find

most of the book devoted to very basic hardware concepts. Much of this information is obtainable from sources cheaper than a \$70 book. For example, the MPC7450 PPC Reference Manual is over 800 pages and is free (check out Freescale or IBM websites) - you will learn about microprocessor architecture too!. There are two chapters in the book (Chapters 1 and 11) that have a weak discussion on architecture, and after a lot of hand waving, finally refer you to some other books (see page 533) that actually discuss architecture. So if you know nothing about hardware or were sleeping in class, you might find this book useful. I am sending it back - and next time I will read all the reviews.

Wow. I have never read such a useful book explaining everything involved in understanding and designing an architecture of any embedded system. In fact, I do not think a book like this has ever been done (I am sure it has made the competition jealous, I certainly wish I could have written this type of book) It explains all the major hardware and software components in a very organized way (where separate chapters reflect every major component and with chapters that bring it all together). The number and the quality of the diagrams are amazing!!!! The author clearly explains all the concepts using many visual diagrams, and even complex diagrams are introduced and dissected until the technical concepts within the diagrams are simplified and are clear (i.e., when the major components on the same hardware board are explained, or the major components found in a processor, ...). In fact, the hardware section is perfect for software people to get a good handle on understanding hardware, or students in EE just starting out!!!! I was also impressed that the architectural information is based on solid methodologies from credible organizations (i.e., the ABC invented by the Carnegie Mellon Software Engineering Institute, IBM Rational Unified Process,...) and applies it clearly to embedded systems, which I have not seen done before all in one text. I consider it a very valuable architecture book on Embedded Systems, and would not hesitate to recommend it!

I have been reading ALL of the reviews on this site and on other sites before I bought this book. ACM reviews website in the last few weeks came out with 2 different reviewers saying this book is great for beginners, and after reading this book I completely agree. "This book is a complete reference for embedded systems design and development. It provides a detailed presentation of the main parts that compose an embedded system, namely, the hardware layer and the software layer. The author provides the needed technological background for working with embedded systems. Real-world examples enforce the theoretical and practical aspects presented in the book. The

author succeeds in presenting her practical experience with embedded systems in a structured and pedagogical way. I especially appreciated the tips and tricks in the book, such as comments on debugging tools, and the references to technical magazines related to the subject. I recommend this book as a first reference for studying embedded systems. - ACM Reviewer. Ghita Kouadri

MostÃ©faoui""This is a great textbook which has the right amount of detail to cover this large domain. It gives readers both the basics and the details of the field. == ACM Reviewer Claudiu Popescu"I think this book is great, but maybe with someone very technically experienced in pure embedded systems could find this book as being too basic. The hardware sections is great for software programmers who do not have electronics experience, and there are several hundred pages on embedded software.It is not really fair and is really wierd for someone who is obviously very experienced in embedded systems to be reviewing and bashing this book, when in the book's sales description it says it is intended for students and engineers just starting out.

I, myself, am new to the industry and have been hunting for a quality embedded systems' book for months. Equipped with the knowledge a college education and 5 years of development experience would offer concerning embedded systems, I bought this book in hopes of fully understanding the research, design, and development of an embedded system. From its coherent introduction through its lucid analysis of standards, hardware, and software layers, to its elegant piecing of it all together, this book does a brilliant job in guiding both experienced and inexperienced engineers through the challenging field of embedded systems. The simple examples and diagrams made it easy for me to follow, and the fluid content made it clear for me to understand. I highly recommend this book to anyone, especially Java and .NET developers, interested in embedded system's design.

An easy-to-read and well written book, I would highly recommend it to anyone who is just starting out or needs an overview of embedded systems hardware and software. In fact, I have never read a computer systems book as comprehensive, clear, and concise as this one. I was impressed from the first page, and learned not only about the architecture of an embedded system, but how to think and approach learning in the future. Very well thought-out and structured.

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