Computer Architecture and Organization: An Integrated Approach

Miles J. Murdocca, Vincent P. Heuring

Computer Architecture and Organization: An Integrated Approach

Miles J. Murdocca, Vincent P. Heuring

Computer Architecture and Organization: An Integrated Approach Miles J. Murdocca, Vincent P. Heuring
An accessible introduction to computer systems and architecture

Anyone aspiring to more advanced studies in computer-related fields must gain an understanding of the two parallel aspects of the modern digital computer: programming methodology and the underlying machine architecture. The uniquely integrated approach of Computer Architecture and Organization connects the programmer's view of a computer system with the associated hardware and peripheral devices, providing a thorough, three-dimensional view of what goes on inside the machine.

Covering all the major topics normally found in a first course in computer architecture, the text focuses on the essentials including the instruction set architecture (ISA), network-related issues, and programming methodology. Using "real world" case studies to put the information into perspective, the chapters examine:
* Data representation
* Arithmetic
* The instruction set architecture
* Datapath and Control
* Languages and the machine
* Memory
* Buses and peripherals
* Networking and communication
* Advanced computer architecture

A valuable feature of this book is the use of ARC, a subset of the SPARC processor, for an instruction set architecture. A platform-independent ARCTools suite, containing an assembler and simulator for the ARC ISA, that supports the examples used in the book is available. Better yet, the content is supplemented by online problem sets available through WileyPlus.

Balanced and thoughtfully designed for use as either a classroom text or self-study guide, Computer Architecture and Organization: An Integrated Approach will put you solidly on track for advancing to higher levels in computer-related disciplines.

About the Author:

MILES MURDOCCAserves as the President and CEO of Internet Institute USA (IIUSA), a private postsecondary information technology (IT) school specializing in networking, operating systems, IP telephony, programming, and security. Previously, Dr. Murdocca has been a computer science faculty member at Rutgers University and a research scientist at AT&T Bell Laboratories working in computer architecture, networking, and digital optical computing. He is the author of A Digital Design Methodology for Optical Computing and Principles of Computer Architecture and a contributing author to Computer Systems Design and Architecture, Second Edition as well as the author of dozens of professional papers and patents relating to information technology.

VINCE HEURING is an associate professor and acting chair of the Department of Electrical and Computer Engineering at the University of Colorado at Boulder. He has been at the university since 1984, and prior to that he spent three years at the University of Cincinnati. Professor Heuring's research encompasses computer architectures and programming language design implementation. He and his colleague, Harry Jordan, designed and built the world's first stored program optical computer, "SPOC."

Download and Read Free Online Computer Architecture and Organization: An Integrated Approach Miles J. Murdocca, Vincent P. Heuring

---

From reader reviews:

Jose Miller:

Why don't make it to be your habit? Right now, try to ready your time to do the important work, like looking for your favorite reserve and reading a publication. Beside you can solve your long lasting problem; you can add your knowledge by the e-book entitled Computer Architecture and Organization: An Integrated Approach. Try to face the book Computer Architecture and Organization: An Integrated Approach as your close friend. It means that it can to be your friend when you experience alone and beside associated with course make you smarter than ever. Yeah, it is very fortuned to suit your needs. The book makes you far more confidence because you can know everything by the book. So , we should make new experience as well as knowledge with this book.

Hazel Gannon:

Now a day folks who Living in the era everywhere everything reachable by match the internet and the resources included can be true or not require people to be aware of each facts they get. How people have to be smart in acquiring any information nowadays? Of course the correct answer is reading a book. Studying a book can help people out of this uncertainty Information mainly this Computer Architecture and Organization: An Integrated Approach book as this book offers you rich information and knowledge. Of course the information in this book hundred per-cent guarantees there is no doubt in it you know.

Patricia Stroud:

The book Computer Architecture and Organization: An Integrated Approach will bring you to the new experience of reading a new book. The author style to spell out the idea is very unique. If you try to find new book to learn, this book very suitable to you. The book Computer Architecture and Organization: An Integrated Approach is much recommended to you to see. You can also get the e-book from the official web site, so you can more easily to read the book.

Nicholas Ko:

Computer Architecture and Organization: An Integrated Approach can be one of your beginner books that are good idea. Many of us recommend that straight away because this e-book has good vocabulary which could increase your knowledge in vocab, easy to understand, bit entertaining but nonetheless delivering the information. The writer giving his/her effort that will put every word into delight arrangement in writing Computer Architecture and Organization: An Integrated Approach however doesn't forget the main position, giving the reader the hottest and also based confirm resource data that maybe you can be one of it. This great information may drawn you into completely new stage of crucial thinking.

Download and Read Online Computer Architecture and Organization: An Integrated Approach Miles J. Murdocca, Vincent P. Heuring #TQZOC3K7HMA

Read Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring for online ebook

Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring books to read online.

Online Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring ebook PDF download

Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring Doc

Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring Mobipocket

Computer Architecture and Organization: An Integrated Approach by Miles J. Murdocca, Vincent P. Heuring EPub