

Digital Logic Design Fourth Edition Floyd

Programmable Logic Controllers Foundations for Microstrip Circuit Design Digital Logic and Computer Design Digital Design - Logic, Memory, Computers Digital Electronics: A Primer - Introductory Logic Circuit Design CMOS VLSI Design Microelectronic Circuit Design Sustainable Construction Fundamentals of Digital Logic and Microcomputer Design Electronics - Circuits and Systems Software Engineering at Google Basic Concepts in Digital Electronics and Logic Design Digital Design Beginner's Guide to Reading Schematics, Third Edition Fundamentals of digital logic with Verilog design Digital Design: Principles And Practices, 4/E Digital Logic Circuit Analysis and Design [rental Edition] Space Planning Basics Applied Electromagnetics Starting Out with Programming Logic and Design Digital Design Modern Digital Electronics Qualitative Research Digital Systems Digital Circuits and Design, 4th Edition Digital Logic Design FUNDAMENTALS OF DIGITAL CIRCUITS Digital Electronic Circuits Digital Design About Face DIGITAL LOGIC DESIGN Logic and Computer Design Fundamentals Rapid Prototyping of Digital Systems Practical Electronics for Inventors, Fourth Edition Advanced Digital Design with the Verilog HDL Modern VLSI Design An Object-Oriented Approach to Programming Logic and Design Digital Design Digital Design and Computer Architecture Digital Circuits And Design, 3E

Programmable Logic Controllers

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)—SystemVerilog and VHDL—which illustrate and compare the ways each can be used in the design of digital systems. Includes examples throughout the text that enhance the reader'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.

Foundations for Microstrip Circuit Design

This is the introduction to PLCs for which baffled students, technicians and managers have been waiting. In this straightforward, easy-to-read guide, Bill Bolton has kept the jargon to a minimum, considered all the programming methods in the standard IEC 1131-3 - in particular ladder programming, and presented the subject in a way that is not device specific to ensure maximum applicability to courses in electronics and control systems. Now in its fourth edition, this best-selling text has been expanded with increased coverage of industrial systems and PLCs and more consideration has been given to IEC 1131-3 and all the programming methods in the standard. The new edition brings the book fully up to date with the current developments in PLCs, describing new and important applications such as PLC use in communications (e.g. Ethernet - an extremely popular system), and safety - in particular proprietary emergency stop relays (now appearing in practically every PLC based system). The coverage of commonly used PLCs has been increased, including the ever popular Allen Bradley PLCs, making this book an essential source of information both for professionals wishing to update their knowledge, as well as students who require a straight forward introduction to this area of control engineering. Having read this book, readers will be able to: * Identify the main design characteristics and internal architecture of PLCs * Describe and identify the characteristics of commonly used input and output devices * Explain the processing of inputs and outputs of PLCs * Describe communication links involved with control systems * Develop ladder programs for the logic functions AND, OR, NOT, NAND, NOT and XOR * Develop functional block, instruction list, structured text and sequential function chart programs * Develop programs using internal relays, timers, counters, shift registers, sequencers and data handling * Identify safety issues with PLC systems * Identify methods used for fault diagnosis, testing and debugging programs Fully matched to the requirements of BTEC Higher Nationals, students are able to check their learning and understanding as they work through the text using the Problems section at the end of each chapter. Complete answers are provided in the back of the book. * Thoroughly practical introduction to PLC use and application - not device specific, ensuring relevance to a wide range of courses * New edition expanded with increased coverage of IEC 1131-3, industrial control scenarios and communications - an important aspect of PLC use * Problems included at the end of each chapter, with a complete set of answers given at the back of the book

Digital Logic and Computer Design

This book takes an authoritative introduction to basic principles of digital design and practical requirements in both board-

level and VLSI systems. Digital Design covers the most widespread logic design practices while building a solid foundation of theoretical and engineering principles. This easy-to-follow book uses a practical writing style. Includes low voltage and LVCMOS/LVTTL. Coverage of Complex Programmable Logic Devices (CPLDs) and Field-Programmable Gate Arrays (FPGAs). Introduction of HDL-based digital design Covers VHDL as well as ABEL. Including simulation and synthesis.

Digital Design - Logic, Memory, Computers

First Published in 2010. Routledge is an imprint of Taylor & Francis, an informa company.

Digital Electronics: A Primer - Introductory Logic Circuit Design

CMOS VLSI Design

The leading green building reference, updated with the latest advances in the field Sustainable Construction is the leading reference for the design, construction, and operation of high performance green buildings. With broad coverage including architecture, engineering, and construction, this book nevertheless delivers detailed information on all aspects of the green building process, from materials selection to building systems and more. This new fourth edition has been updated to reflect the latest codes and standards, including LEED v4, and includes new coverage of carbon accounting. The discussion has been updated to align with the current thinking on economics, climate change, net zero buildings, and more, with contributions by leaders in the field that illustrate the most recent shifts in thinking and practice. Ancillary materials including an instructor's manual and PowerPoint presentations for each chapter help bring this clear and up-to-date information into the classroom, making this book a valuable reference for working construction professionals. Also, Interactive graphics found throughout the course help activate the content and highlight key concepts for students. Sustainable construction has gone mainstream, and will one day be the industry norm. This book provides a comprehensive reference to all aspects of a project to show you how green building concepts and principles apply throughout the design and construction process. Get up to date on the latest green building codes and standards Learn about the newest technology in green building materials Adopt the best practices in procurement and delivery systems Apply sustainability concepts to all aspects of construction and design Green buildings operate at a very high level of efficiency, which is made possible only by careful consideration every step of the way. Appropriate land use, landscaping, construction materials, siting, water use, and more all play a role in a structure's ultimate carbon footprint. Sustainable Construction provides clear guidance for all aspects of green building, including the most recent advances and the latest technology.

Microelectronic Circuit Design

New, updated and expanded topics in the fourth edition include: EBCDIC, Grey code, practical applications of flip-flops, linear and shaft encoders, memory elements and FPGAs. The section on fault-finding has been expanded. A new chapter is dedicated to the interface between digital components and analog voltages. *A highly accessible, comprehensive and fully up to date digital systems text *A well known and respected text now revamped for current courses *Part of the Newnes suite of texts for HND/1st year modules

Sustainable Construction

Electrical and Electronic Engineering Design Series Volume 3 This university level Electrical Engineering text is for anyone who wants to know how to design products using digital logic circuits. The present text is unusually accessible to readers who want to acquire the skills of digital design. We present a thorough foundation so that you can proceed to learn how to design any digital system. This text is different from the many introductory digital design texts, because we actually design a product by implementing a design and not just talk about logic circuits used in a digital circuit. And, we ask you to work hard doing experiments so that you acquire real world experience with commercially available digital circuits. In other words this is about real learning. We start at the beginning by presenting a top down design method for digital systems. We learn about three basic tools necessary to execute any digital design - Truth Tables, Karnaugh maps, and Switching Algebra. The basic circuits of digital logic are building blocks without memory. They are standard commercially available logic circuits, which are described and their equations are presented. We only use standard products. Furthermore we show how to use mixed logic that simplifies digital design. The ASM (algorithmic state machine) chart, a fourth tool, is the preferred way to implement the algorithm representing the product you want to design. We show how to implement ASM charts, derive truth tables from them, and how to convert the truth tables to digital circuits. The ASM-chart-to-product process is straightforward. The design of complex building blocks with memory is based on elementary blocks with one bit memory also known as flip-flops. Designs are implemented by the ASM method. We show how to use ASM's to design up and up/down synchronous counters, shift registers, and linear feedback shift registers using standard products. This is followed by showing how to design memory systems with and without a cache hierarchy. We explain, and then show how to add error correction and control to the memory system. ASM charts and associated timing diagrams allow us to readily implement the designs. These are charts and timing diagrams we have not found anywhere else. A computer has two basic parts - computer control and a datapath for executing instructions. We define a user instruction set (ul), the ul address modes, and how the ul are formatted as binary words. Status bits NCZV and their condition codes that implement program control are defined. We show how each ul is represented by a list of micro instructions ml that is executed by the datapath, and how the datapath executes the ml. For large circuit designs text capture of digital designs is preferred to schematic

capture. Verilog uses text capture to represent digital circuits with a hierarchy of modules that are interconnected via input and output ports. We show by example how to write modules defining digital circuits so that you can move on to multi 1,000 gate chip designs using Verilog, which is a hardware description language (HDL). The presentations are eminently clear, because they are based on the policies assume nothing and nothing is obvious. The present text's contents are topics one actually uses when engaged in digital circuit analysis and design. Eight experiments are included that give life to the text's contents, and provide the reader with real world experience with making measurements, using instruments, and learning about all kinds of parts. We consider the experiments to be significant learning activities.

Fundamentals of Digital Logic and Microcomputer Design

This book presents the basic concepts used in the design and analysis of digital systems and introduces the principles of digital computer organization and design.

Electronics - Circuits and Systems

The award-winning VLSI design guide is now fully updated to reflect the latest advances in chip design

Software Engineering at Google

For courses on digital design in an Electrical Engineering, Computer Engineering, or Computer Science department. Digital Design, fifth edition is a modern update of the classic authoritative text on digital design. This book teaches the basic concepts of digital design in a clear, accessible manner. The book presents the basic tools for the design of digital circuits and provides procedures suitable for a variety of digital applications.

Basic Concepts in Digital Electronics and Logic Design

This print textbook is available for students to rent for their classes. The Pearson print rental program provides students with affordable access to learning materials, so they come to class ready to succeed. Balance breadth and depth of coverage with practical real-world design methods. Digital Logic Circuit Analysis and Design provides an authoritative, state-of-the-art approach to the fundamentals of digital logic analysis and design that is highly supportive of student learning. The book balances theory and practice in depth without getting bogged down in excessive technical or mathematical language. Retaining its tradition of both clarity and rigor, the 2nd Edition features extensive coverage of current topics of interest, such as modeling with Verilog and VHDL, design with programmable devices, and computer-aided design. Filled

with updated illustrations, examples, and problems, this text helps students gain a solid sense of how theory underlies practice. This title is also available digitally as a standalone Pearson eText. Contact your Pearson rep for more information.

Digital Design

Beginner's Guide to Reading Schematics, Third Edition

Microelectronic Circuit Design is known for being a technically excellent text. The new edition has been revised to make the material more motivating and accessible to students while retaining a student-friendly approach. Jaeger has added more pedagogy and an emphasis on design through the use of design examples and design notes. Some pedagogical elements include chapter opening vignettes, chapter objectives, "Electronics in Action" boxes, a problem solving methodology, and "design note" boxes. The number of examples, including new design examples, has been increased, giving students more opportunity to see problems worked out. Additionally, some of the less fundamental mathematical material has been moved to the ARIS website. In addition this edition comes with a Homework Management System called ARIS, which includes 450 static problems.

Fundamentals of digital logic with Verilog design

Translate schematic diagrams into today's cutting-edge electronics. Navigate the roadmaps of simple electronic circuits and complex systems with help from an experienced engineer. With all-new art and demo circuits you can build, this hands-on, illustrated guide explains how to understand and create high-precision electronics diagrams. Find out how to identify parts and connections, decipher element ratings, and apply diagram-based information in your own projects. Beginner's Guide to Reading Schematics, Third Edition, also contains valuable appendices covering symbols and resistor color codes. Featuring detailed coverage of: Schematic, block, and pictorial diagrams Resistors and capacitors Inductors and transformers Switches, conductors, and cables Diodes, transistors, and logic gates Electron tubes Cells and batteries Voltage dividers and reducers Breadboards and wire wrapping Electronics troubleshooting

Digital Design: Principles And Practices, 4/E

The bestselling guide to qualitative research, updated and expanded Qualitative Research is the essential guide to understanding, designing, conducting, and presenting a qualitative research study. This fourth edition features new material covering mixed methods, action research, arts-based research, online data sources, and the latest in data analysis,

including data analysis software packages as well as narrative and poetic analysis strategies. A new section offers multiple ways of presenting qualitative research findings. The reader-friendly, jargon-free style makes this book accessible to both novice and experienced researchers, emphasizing the role of a theoretical framework in designing a study while providing practical guidance. Qualitative research reaches beyond the what, where, and when of quantitative analysis to investigate the why and how behind human behavior and the reasons that govern such behavior, but this presents a number of significant challenges. This guide is an invaluable reference for students and practitioners alike, providing the deep understanding that this sometimes difficult area of research requires to produce accurate results. The book contains a step-by-step guide to analyzing qualitative data and an addendum for graduate students with a template for a thesis, dissertation, or grant application. Build a strong foundation in qualitative research theory and application Design and implement effective qualitative research studies Communicate findings more successfully with clear presentation Explore data sources, data analysis tools, and the different types of research

Digital Logic Circuit Analysis and Design [rental Edition]

CD-ROM contains: evalutaiton versions of Synapticad's WaveFormer Pro -- TestBencher Pro -- Verilogger Pro -- DataSheet Pro -- TimeDiagrammer Pro -- author-supplied HDL example files.

Space Planning Basics

The Fourth edition of this well-received text continues to provide coherent and comprehensive coverage of digital circuits. It is designed for the undergraduate students pursuing courses in areas of engineering disciplines such as Electrical and Electronics, Electronics and Communication, Electronics and Instrumentation, Telecommunications, Medical Electronics, Computer Science and Engineering, Electronics, and Computers and Information Technology. It is also useful as a text for MCA, M.Sc. (Electronics) and M.Sc. (Computer Science) students. Appropriate for self study, the book is useful even for AMIE and grad IETE students. Written in a student-friendly style, the book provides an excellent introduction to digital concepts and basic design techniques of digital circuits. It discusses Boolean algebra concepts and their application to digital circuitry, and elaborates on both combinational and sequential circuits. It provides numerous fully worked-out, laboratory tested examples to give students a solid grounding in the related design concepts. It includes a number of short questions with answers, review questions, fill in the blanks with answers, multiple choice questions with answers and exercise problems at the end of each chapter.

Applied Electromagnetics

Fundamentals of Digital Logic and Microcomputer Design, has long been hailed for its clear and simple presentation of the principles and basic tools required to design typical digital systems such as microcomputers. In this Fifth Edition, the author focuses on computer design at three levels: the device level, the logic level, and the system level. Basic topics are covered, such as number systems and Boolean algebra, combinational and sequential logic design, as well as more advanced subjects such as assembly language programming and microprocessor-based system design. Numerous examples are provided throughout the text. Coverage includes: Digital circuits at the gate and flip-flop levels Analysis and design of combinational and sequential circuits Microcomputer organization, architecture, and programming concepts Design of computer instruction sets, CPU, memory, and I/O System design features associated with popular microprocessors from Intel and Motorola Future plans in microprocessor development An instructor's manual, available upon request Additionally, the accompanying CD-ROM, contains step-by-step procedures for installing and using Altera Quartus II software, MASM 6.11 (8086), and 68asm (68000), provides valuable simulation results via screen shots. Fundamentals of Digital Logic and Microcomputer Design is an essential reference that will provide you with the fundamental tools you need to design typical digital systems.

Starting Out with Programming Logic and Design

Part of the McGraw-Hill Core Concepts Series, Modern Digital Electronics is an ideal textbook for a course on digital electronics at the undergraduate level. The text introduces digital systems and techniques through a bottom-up approach that allows users to start out with the basics of integrated circuits/circuit design and delve into topics such as digital design, flip flops, A/D and D/A. The book then moves on to explore elements of complex digital circuits with material like FPGAs, PLDs, PLAs, and more. Rich pedagogical features include review questions with answers, a glossary of key terms, a large number of solved examples, and numerous practice problems. This is a concise, less expensive alternative to other digital logic designs. This series is edited by Dick Dorf.

Digital Design

Today, software engineers need to know not only how to program effectively but also how to develop proper engineering practices to make their codebase sustainable and healthy. This book emphasizes this difference between programming and software engineering. How can software engineers manage a living codebase that evolves and responds to changing requirements and demands over the length of its life? Based on their experience at Google, software engineers Titus Winters and Hyrum Wright, along with technical writer Tom Manshreck, present a candid and insightful look at how some of the world's leading practitioners construct and maintain software. This book covers Google's unique engineering culture, processes, and tools and how these aspects contribute to the effectiveness of an engineering organization. You'll explore

three fundamental principles that software organizations should keep in mind when designing, architecting, writing, and maintaining code: How time affects the sustainability of software and how to make your code resilient over time How scale affects the viability of software practices within an engineering organization What trade-offs a typical engineer needs to make when evaluating design and development decisions

Modern Digital Electronics

This first edition book covers the key design problems of modeling, architectural tradeoffs, functional verification, timing analysis, test generation, fault simulation, design for testability, logic synthesis, and post-synthesis verification. The author's focus is on developing, verifying, and synthesizing designs of digital circuits rather than on the Verilog language. Some of the topics covered in this book include Digital Design Methodology, Combinational Logic, Sequential Logic Design, Logic Design with Verilog, and Programmable Logic and Storage Devices. For professional engineers interested in learning Verilog by example, in the context of its use in the design flow of modern integrated circuits.

Qualitative Research

The essential interaction design guide, fully revised and updated for the mobile age About Face: The Essentials of Interaction Design, Fourth Edition is the latest update to the book that shaped and evolved the landscape of interaction design. This comprehensive guide takes the worldwide shift to smartphones and tablets into account. New information includes discussions on mobile apps, touch interfaces, screen size considerations, and more. The new full-color interior and unique layout better illustrate modern design concepts. The interaction design profession is blooming with the success of design-intensive companies, priming customers to expect "design" as a critical ingredient of marketplace success. Consumers have little tolerance for websites, apps, and devices that don't live up to their expectations, and the responding shift in business philosophy has become widespread. About Face is the book that brought interaction design out of the research labs and into the everyday lexicon, and the updated Fourth Edition continues to lead the way with ideas and methods relevant to today's design practitioners and developers. Updated information includes: Contemporary interface, interaction, and product design methods Design for mobile platforms and consumer electronics State-of-the-art interface recommendations and up-to-date examples Updated Goal-Directed Design methodology Designers and developers looking to remain relevant through the current shift in consumer technology habits will find About Face to be a comprehensive, essential resource.

Digital Systems

For one- to two-semester Computer Science and Engineering courses in logic and digital design at the sophomore/junior level. Featuring a strong emphasis on the fundamentals underlying contemporary logic design using hardware description languages, synthesis, and verification, this book focuses on the ever-evolving applications of basic computer design concepts with strong connections to real-world technology.

Digital Circuits and Design, 4th Edition

The Use Of Digital Circuits Is Increasing In All Disciplines Of Engineering. Consequently Students Need To Have An In-Depth Knowledge On Them. Digital Circuits And Design Is A Textbook Dealing With The Basics Of Digital Technology Including The Design Asp

Digital Logic Design

Space planning involves much more than sketching a preliminary floor plan. A designer must take a client's programming needs into account and must also consider how other factors such as building codes and environmental factors affect a spatial composition. Space Planning Basics, now in its Third Edition, offers a highly visual, step-by-step approach to developing preliminary floor plans for commercial spaces. The book provides tools for visualizing space and walks the designer through other considerations such as building code requirements and environmental control needs. Specific programming techniques covered include matrices, bubble diagrams, CAD templates, block plans, and more. New to this edition are coverage of the basics of stair design, an essential aspect for planning spaces.

FUNDAMENTALS OF DIGITAL CIRCUITS

Building on the success of the previous three editions, Foundations for Microstrip Circuit Design offers extensive new, updated and revised material based upon the latest research. Strongly design-oriented, this fourth edition provides the reader with a fundamental understanding of this fast expanding field making it a definitive source for professional engineers and researchers and an indispensable reference for senior students in electronic engineering. Topics new to this edition: microwave substrates, multilayer transmission line structures, modern EM tools and techniques, microstrip and planar transmission line design, transmission line theory, substrates for planar transmission lines, Vias, wirebonds, 3D integrated interposer structures, computer-aided design, microstrip and power-dependent effects, circuit models, microwave network analysis, microstrip passive elements, and slotline design fundamentals.

Digital Electronic Circuits

Here is a laboratory workbook filled with interesting and challenging projects for digital logic design and embedded systems classes. The workbook introduces you to fully integrated modern CAD tools, logic simulation, logic synthesis using hardware description languages, design hierarchy, current generation field programmable gate array technology, and SoPC design. Projects cover such areas as serial communications, state machines with video output, video games and graphics, robotics, pipelined RISC processor cores, and designing computer systems using a commercial processor core.

Digital Design

This book presents three aspects of digital circuits: digital principles, digital electronics, and digital design. The modern design methods of using electronic design automation (EDA) are also introduced, including the hardware description language (HDL), designs with programmable logic devices and large scale integrated circuit (LSI). The applications of digital devices and integrated circuits are discussed in detail as well.

About Face

This practical introduction explains exactly how digital circuits are designed, from the basic circuit to the advanced system. It covers combinational logic circuits, which collect logic signals, to sequential logic circuits, which embody time and memory to progress through sequences of states. The primer also highlights digital arithmetic and the integrated circuits that implement the logic functions. Based on the author's extensive experience in teaching digital electronics to undergraduates, the book translates theory directly into practice and presents the essential information in a compact, digestible style. Worked problems and examples are accompanied by abbreviated solutions, with demonstrations to ensure that the design material and the circuits' operation are fully understood. This is essential reading for any electronic or electrical engineering student new to digital electronics and requiring a succinct yet comprehensive introduction.

DIGITAL LOGIC DESIGN

Starting Out with Programming Logic and Design, Third Edition, is a language-independent introductory programming book that orients students to programming concepts and logic without assuming any previous programming experience. In the successful, accessible style of Tony Gaddis' best-selling texts, useful examples and detail-oriented explanations allow students to become comfortable with fundamental concepts and logical thought processes used in programming without the complication of language syntax. Students gain confidence in their program design skills to transition into more comprehensive programming courses. The book is ideal for a programming logic course taught as a precursor to a language-specific introductory programming course, or for the first part of an introductory programming course.

Logic and Computer Design Fundamentals

Rapid Prototyping of Digital Systems

With increasing use of digital circuits in all disciplines of engineering, students need to have an in-depth knowledge of the subject today. Digital Circuits and Design is a textbook dealing with the basics of digital technology, including the design aspects of circuits. The fourth edition has been completely revised and updated, with new examples and solutions. It is divided into 16 chapters. Each chapter begins with an introduction and ends with review questions and problems. The book fulfils the requirements of students of various BE/ B.Tech degree courses, including Electronics and Communication Engineering, Electrical and Electronics Engineering, Information Technology, Computer Science and Engineering, and Electronics and Instrumentation Engineering offered in all Indian universities. It will also serve as a textbook for students of BSc and MSc courses in Electronics and Communication, Information Technology, Computer Science, Applied Physics and Computer Software, MCA, AMIE, Grad. IETE and diploma courses, and as a reference book for competitive examinations.

Practical Electronics for Inventors, Fourth Edition

Provide beginning programmers with a guide to developing object-oriented program logic with Farrell's AN OBJECT-ORIENTED APPROACH TO PROGRAMMING LOGIC AND DESIGN, 4E. This text takes a unique, language-independent approach to ensure students develop a strong foundation in traditional programming principles and object-oriented concepts before learning the details of a specific programming language. The author presents object-oriented programming terminology without highly technical language, making the book ideal for students with no previous programming experience. Common business examples clearly illustrate key points. The book begins with a strong object-oriented focus in updated chapters that make even the most challenging programming concepts accessible. A wealth of updated programming exercises in every chapter provide diverse practice opportunities, while new Video Lessons by the author clarify and expand on key topics. Use this text alone or with a language-specific companion text that emphasizes C++, Java or Visual Basic for the solid introduction to object-oriented programming logic your students need for success. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Advanced Digital Design with the Verilog HDL

This textbook for a one-semester course in Digital Systems Design describes the basic methods used to develop “traditional” Digital Systems, based on the use of logic gates and flip flops, as well as more advanced techniques that

enable the design of very large circuits, based on Hardware Description Languages and Synthesis tools. It was originally designed to accompany a MOOC (Massive Open Online Course) created at the Autonomous University of Barcelona (UAB), currently available on the Coursera platform. Readers will learn what a digital system is and how it can be developed, preparing them for steps toward other technical disciplines, such as Computer Architecture, Robotics, Bionics, Avionics and others. In particular, students will learn to design digital systems of medium complexity, describe digital systems using high level hardware description languages, and understand the operation of computers at their most basic level. All concepts introduced are reinforced by plentiful illustrations, examples, exercises, and applications. For example, as an applied example of the design techniques presented, the authors demonstrate the synthesis of a simple processor, leaving the student in a position to enter the world of Computer Architecture and Embedded Systems.

Modern VLSI Design

STUDENT COMPANION SITE Every new copy of Stuart Wentworth's Applied Electromagnetics comes with a registration code which allows access to the Student's Book Companion Site. On the BCS the student will find: * Detailed Solutions to Odd-Numbered Problems in the text * Detailed Solutions to all Drill Problems from the text * MATLAB code for all the MATLAB examples in the text * Additional MATLAB demonstrations with code. This includes a Transmission Lines simulator created by the author. * Weblinks to a vast array of resources for the engineering student. Go to www.wiley.com/college/wentworth to link to Applied Electromagnetics and the Student Companion Site. ABOUT THE PHOTO Passive RFID systems, consisting of readers and tags, are expected to replace bar codes as the primary means of identification, inventory and billing of everyday items. The tags typically consist of an RFID chip placed on a flexible film containing a planar antenna. The antenna captures radiation from the reader's signal to power the tag electronics, which then responds to the reader's query. The PENI Tag (Product Emitting Numbering Identification Tag) shown, developed by the University of Pittsburgh in a team led by Professor Marlin H. Mickle, integrates the antenna with the rest of the tag electronics. RFID systems involve many electromagnetics concepts, including antennas, radiation, transmission lines, and microwave circuit components. (Photo courtesy of Marlin H. Mickle.)

An Object-Oriented Approach to Programming Logic and Design

A Fully-Updated, No-Nonsense Guide to Electronics Advance your electronics knowledge and gain the skills necessary to develop and construct your own functioning gadgets. Written by a pair of experienced engineers and dedicated hobbyists, Practical Electronics for Inventors, Fourth Edition, lays out the essentials and provides step-by-step instructions, schematics, and illustrations. Discover how to select the right components, design and build circuits, use microcontrollers and ICs, work with the latest software tools, and test and tweak your creations. This easy-to-follow book features new instruction on

programmable logic, semiconductors, operational amplifiers, voltage regulators, power supplies, digital electronics, and more. Practical Electronics for Inventors, Fourth Edition, covers: Resistors, capacitors, inductors, and transformers Diodes, transistors, and integrated circuits Optoelectronics, solar cells, and phototransistors Sensors, GPS modules, and touch screens Op amps, regulators, and power supplies Digital electronics, LCD displays, and logic gates Microcontrollers and prototyping platforms Combinational and sequential programmable logic DC motors, RC servos, and stepper motors Microphones, audio amps, and speakers Modular electronics and prototypes

Digital Design

Digital Design and Computer Architecture

Digital Circuits And Design, 3E

Description: The book is an attempt to make Digital Logic Design easy and simple to understand. The book covers various features of Logic Design using lots of examples and relevant diagrams. The complete text is reviewed for its correctness. This book is an outcome of sincere effort and hard work to bring concepts of Digital Logic Design close to the audience of this book. The salient features of the book:--Easy explanation of Digital System and Binary Numbers with lots of solved examples-Detailed covering of Boolean Algebra and Gate-Level Minimization with proper examples and diagrammatic representation.-Detailed analysis of different Combinational Logic Circuits-Complete Synchronous sequential Logic understanding-Deep understanding of Memory and Programmable Logic-Detailed analysis of different Asynchronous Sequential Logic

Table Of Contents: Unit 1 : Digital System and Binary Numbers; Part 1: Digital System and Binary Numbers Part 2 : Boolean Algebra and Gate Level Minimization Unit 2 : Combinational Logic Unit 3: Sequential Circuits Unit 4 : Memory, Programmable Logic and Design Unit 5 : Asynchronous Sequential Logic

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