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ISBN-13: 978-0-07-322275-2 / MHID: 0-07-322275-5

Digital Electronics

International Edition

NEW

DIGITAL ELECTRONICS: PRINCIPLES AND APPLICATIONS

Student Text with MultiSIM CD-ROM, Seventh Edition

by Roger Tokheim

2008 (January 2007)

ISBN-13: 978-0-07-322275-2 / MHID: 0-07-322275-5

ISBN-13: 978-0-07-110850-8 / MHID: 0-07-110850-5 [IE]

Digital Electronics: Principles and Applications is a concise and practical text that prepares students for entry-level electronics jobs. Its level and approach are ideal for both electronics and electricity programs looking for a relatively short, applied book. The seventh edition has been updated, with new coverage of microcontrollers, memory, and interfacing. Optional simulation work with MultiSim is included in the text and accompanying Experiments Manual, with circuit files included on a bound-in CD ROM. Additional student and instructor resources are included on a new Online Learning Center website.

NEW TO THIS EDITION

- Interfacing has been updated and expanded, especially in chapter 5 and chapter 14.
- Memory concepts and examples have been updated in chapter 11.
- MultiSIM v8 simulation files for the circuits included on the CD ROM bound in with the text and Experiments Manual.
- CPS from elnstruction is available with the text, for in-class quizzing and classroom management.
- Online Learning Center (OLC) website provides student quizzes, career information, links to key sites, chapter outlines and other resources.

FEATURES

- Accessible writing style, reading level and math presentation are used throughout the text.
- Gates, circuits and other digital components are presented as sub-systems within larger digital system applications.
- Experiments Manual with MultiSim CD ROM helps students gain practical, hands-on experience, troubleshooting skills, and exposure to software simulation techniques.
- Instructor Productivity Center (IPC) CD ROM contains Power Point presentations for each chapter, EZTestelectronic test generator and questions, and solutions to all textbook and Experiments Manual questions and activities.

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1 Digital Electronics 2 Numbers We Use in Digital Electronics 3 Logic Gates 4 Combining Logic Gates 5 IC Specifications and Simple Interfacing 6 Encoding, Decoding, and Seven-Segment Displays 7 Flip-Flops 8 Counters 9 Shift Registers 10 Arithmetic circuits 11 Memory and Storage 12 Digital Systems 13 Computer Systems 14 Connecting with Analog Devices

ELECTRONICS DEMYSTIFIED

By Stan Gibilisco

2005 / 401 pages / Softcover

ISBN-13: 978-0-07-143493-5 / MHID: 0-07-143493-3

Professional Book

Best-selling Demystified author and electronics expert Stan Gibilisco has penned the perfect introductory book for consumers, hobbyists, and students alike. Coverage includes essential topics such as current and power supplies, wireless, digital principles, measurement and monitoring, transducers and sensors, location and navigation, and more.

CONTENTS

PART ONE: FUNDAMENTAL CONCEPTS. Chapter 1. Direct Current. Chapter 2. Alternating Current. Chapter 3. Impedance. Chapter 4. Power Supplies. Test: Part One. PART TWO: WIRED ELECTRONICS. Chapter 5. Semiconductor Diodes. Chapter 6. Transistors and Integrated Circuits. Chapter 7. Signal Amplifiers. Chapter 8: Signal Oscillators. Test: Part Two. PART THREE: WIRELESS ELECTRONICS. Chapter 9. Radio-Frequency Transmitters. Chapter 10. Radio-Frequency Receivers. Chapter 11. Telecommunications. Chapter 12: Antennas. Test: Part Three. Final Exam. Appendix 1: Answers To Quiz, Test, And Exam Questions. Appendix 2: Symbols Used In Schematic Diagrams. Suggested Additional References. Index. About The Author.

Digital Signal Processing

International Edition

DIGITAL SIGNAL PROCESSING

By Charles A Schuler and Mahesh Chugani

2005 / 352 pages

ISBN-13: 978-0-07-829744-1 / MHID: 0-07-829744-3

(with Student CD)

ISBN-13: 978-0-07-111331-1 / MHID: 0-07-111331-2

[IE with Student CD]

www.mhhe.com/dsp

This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical "hands-on" approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical ideas and then apply them to real-world technician work via software simulations and examples. These activities will clearly illustrate core concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS

Chapter 1 Introduction to Digital Signal Processing. Chapter 2 Converting Analog Signals to Digital Signals. Chapter 3 Correlation and Convolution. Chapter 4 Periodic Functions and Fourier Synthesis. Chapter 5 Discrete Fourier Transform. Chapter 6 Windows. Chapter 7 Digital Filters. Chapter 8 Practical Implementation of Filters. Chapter 9 Digital Signal Processing Systems. Chapter 10 Illustrated DSP Dictionary. Index

Electronic Communications

International Edition

NEW

PRINCIPLES OF ELECTRONIC COMMUNICATION SYSTEMS

Third Edition

by Louis Frenzel

2008 (January 2007)

ISBN-13: 978-0-07-322278-3 / MHID: 0-07-322278-X

ISBN-13: 978-0-07-110810-2 / MHID: 0-07-110810-6 [IE]

Browse <http://www.mhhe.com/frenzel3e>

Principles of Electronic Communication Systems 3/e provides the most up-to-date survey available for students taking a first course in electronic communications. Requiring only basic algebra and trigonometry, the new edition is notable for its readability, learning features and numerous full-color photos and illustrations. A systems approach is used to cover state-of-the-art communications technologies, to best reflect current industry practice. This edition contains greatly expanded and updated material on the Internet, cell phones, and wireless technologies. Practical skills like testing and troubleshooting are integrated throughout. A brand-new Laboratory & Activities Manual provides both hands-on experiments and a variety of other activities, reflecting the variety of skills now needed by technicians. A new Online Learning Center web site is available, with a wealth of learning resources for students. An Instructor Productivity Center CD-ROM features solutions to all problems, PowerPoint lessons, and ExamView test banks for each chapter.

NEW TO THIS EDITION

- New streamlined book design used to highlight learning features, four-color art figures and photographs.
- Updated coverage of cell phones and wireless technologies in chapters 20 and 21.
- Systems approach to electronic communications is used, reflecting current trends in the workplace.
- Internet technologies are covered in new chapter 15, which includes a section on Internet Security.
- OLC website includes the following student resources: self-tests, lab follow-up, links to sites of interest, chapter study overviews, and career information. Instructors will find online versions of the instructor's manual, PowerPoint and lab follow-up.
- An all-new Laboratory & Activities Manual is available, with hands-on labs, simulation routines, and a wide range of activities.
- Television chapter, fully updated, is available on the OLC website, for those who cover the topic.
- Tests & Measurements are covered in chapter 22, with coverage of new technologies like JTAG.
- "Good to Know" margin features direct students to key points in the text.

FEATURES

- Modern coverage of all major communications topics, concentrating on the key areas students need to master.
- Instructor Productivity Center (IPC) offers complete PowerPoint lessons and electronic test banks for each chapter, plus the Instructor's

Manual, with complete solutions to text questions and problems, in electronic form. CPS from elnstruction is also available for classroom management and testing.

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International Edition

COMMUNICATION ELECTRONICS

Third Edition

By Louis E. Frenzel

2001

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ISBN-13: 978-0-07-118304-8 / MHID: 0-07-118304-3 [IE]

CONTENTS

Introduction to Electronic Communication. Amplitude Modulation and Single-Sideband Modulation. Amplitude Modulation Circuits. Frequency Modulation. Frequency Modulation Circuits. Radio Transmitters. Communications Receivers. Multiplexing. Antennas, Transmission Lines, and Radio Wave Propagation. Microwave Techniques. Introduction to Satellite Communications. Data Communication. Fiber-Optic Communications. Television. The Telephone System and Its Applications

Electronic Principles



ELECTRONICS

Principles and Applications, Seventh Edition

by Charles Schuler

2008 (February 2007) / 608 pages

ISBN-13: 978-0-07-310694-6 / MHID: 0-07-310694-1

ISBN-13: 978-0-07-331651-2 / MHID: 0-07-331651-2

(with Multi SIM CD)

Electronics: Principles and Applications provides a concise, practical introduction to analog devices, circuits and systems. Like earlier editions, the Seventh Edition combines theory with real-world applications in a well-paced sequence, introducing students to such topics as semiconductors, op amps, linear integrated circuits, switching power supplies, electronic communications devices and DSP. The text prepares students to effectively diagnose, repair, verify, and install electronic circuits and systems, without overwhelming them with excessive theory. MultiSim examples are included for optional simulation activities, with MultiSim circuit files included on a bound-in CD ROM. Prerequisites are a command of algebra and an understanding of fundamental electrical concepts.

NEW TO THIS EDITION

- Bound-in CD ROM with MultiSIM version 7 circuit simulation files, for circuits included in both the textbook and Experiments Manual.
- CPS from eInstruction is available with Schuler 7/e; PowerPoint and electronic testbank questions are provided that work directly with CPS in the classroom.
- New OLC website is available, with new student and instructor resources.

FEATURES

- Concise approach to electronics, with a practical approach throughout. Just enough theory is presented to support the practical applications students will need for their careers.

- Student learning is reinforced by Self-Tests included with each chapter sub-section; and by Summaries, Related Formulas, Review Questions & Problems and Critical Thinking Questions at the end of each chapter.

- Popular features such as chapter objectives, highlighted key terms, color-coded circuit components, and About Electronics have been retained and updated.

- Modern topics like DSP (chapter 16) and Wireless Networks for communications (section 12-5) are included.

- Experiments Manual for Electronics: Principles and Applications contains labs linked to the text, to help students gain hands-on experience to reinforce subject matter and develop troubleshooting skills.

- Instructor Productivity Center CD ROM contains classroom PowerPoint presentations for every chapter, Test Generator, supplemental PowerPoint presentations, electronic Solutions Manual, and more.

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International Edition

NEW

ELECTRONIC PRINCIPLES WITH SIMULATION CD Seventh Edition

By Albert Paul Malvino, and David J. Bates, Western Wisconsin
Technical College

2007 (March 2006)

ISBN-13: 978-0-07-322277-6 / MHID: 0-07-322277-1
(with Simulation CD)

ISBN-13: 978-0-07-110846-1 / MHID: 0-07-110846-7
[IE with CD and OLC]

Browse <http://www.mhhe.com/malvino7e>

This seventh edition of Malvino's classic Electronic Principles offers students a definitive overview of electronic circuits and devices. Expert knowledge of electronic devices is presented in a stimulating, clearly written, conversational style. The new, streamlined book design is full-color throughout, with ample, clear illustrations. Greater emphasis on modern integrated circuit (IC) technology, and the revision of nearly one third of the previous edition's chapter problems and review questions refresh this text while retaining its proven approach. In addition to the text there is a wealth of supplementary material included for both student and instructor. An upgraded Experiments Manual, the optional use of MultiSIM software, an instructor's manual with an Instructor Productivity Center CD-ROM, the updated Workbook, and the brand new Online Learning Center website make this text a powerful learning tool. Electronic Principles is written for electronics students who have done course work in basic DC/AC circuit analysis, along with algebra and trigonometry prerequisites. The book gives clear, accessible coverage of basic electronics concepts in the first half of the book, then applies these to the important electronic circuits and devices most widely used in today's industry.

NEW TO THIS EDITION

- Greater emphasis on modern integrated circuits (IC) technology.
- Extensive Online Learning Center website with resources for students and instructors.
- Added by co-author David Bates, Worked-Out examples now contain embedded Practice Problems.
- The new "Good to Know" feature offers practical information related to topics explained on that page of the text.
- Expanded MultiSIM usage. The optional use of this software provides "pre-lab" simulations students can work on virtually.
- The upgraded Experiments Manual now includes more on the testing of individual components along with circuits and systems in many labs, with optional MultiSIM applications included. The updated Workbook reflects integration of revised chapter problems and review questions.
- The enhanced Instructor's Manual with Productivity Center (IPC) CD-ROM includes instructional PowerPoint presentations, availability of the eInstruction Classroom Performance System in-class quizzing and classroom management system, test banks created with EZTest that can be used in conjunction with CPS to deliver in-class quizzes, tests, or review.

FEATURES

- Malvino's Electronic Principles combines proven expertise in all aspects of electronics with a student-friendly, contemporary appearance. It is written in a conversational style at a technician level.
- Optical topics in modern electronics are covered, including fiber optics and high intensity LEDs.
- Free, bound-in CD-ROM contains Multisim exercises and selected circuits for simulation.

CONTENTS

1 Introduction. 2 Semiconductors. 3 Diode Theory. 4 Diode Circuits. 5 Special-Purpose Diodes. 6 Bipolar Junction Transistors. 7 Transistor Fundamentals. 8 Transistor Biasing. 9 AC Models. 10 Voltage Amplifiers. 11 CC and CB Amplifiers. 12 Power Amplifiers. 13 JFETs. 14 MOSFETs. 15 Thyristors. 16 Frequency Effects. 17 Differential Amplifiers. 18 Operational Amplifiers. 19 Negative Feedback. 20 Linear Op-Amp Circuits. 21 Active Filters. 22 Nonlinear Op-Amp Circuits. 23 Oscillators. 24 Regulated Power Supplies.

Basic Electricity

International Edition

NEW

ELECTRICITY Principles and applications with Simulation CD-ROM Seventh Edition

by Richard Fowler

2008 (January 2007)

ISBN-13: 978-0-07-322279-0 / MHID: 0-07-322279-8

ISBN-13: 978-0-07-128593-3 / MHID: 0-07-128593-8 [IE]

This widely-used text prepares students for entry-level jobs in electronics, electrical trades and related fields. Its level and approach are ideal for both electronics and electricity programs looking for a relatively short, applied book covering DC/AC circuits. Additional chapters on topics such as safety, transformers, motors, instrumentation, and residential wiring are also included. No prior knowledge of electricity is assumed; the only prerequisites are arithmetic and basic algebra. Practical skills are emphasized throughout the text, and supported in the hands-on work provided in the companion Experiments Manual. MultiSim circuit files are provided, on a bound-in CD ROM, for those who want to bring software simulation work into their classes and labs.

NEW TO THIS EDITION

- OLC website with career information, test questions, Introduction to MultiSim, equipment lists for labs and links to key sites. Instructors are provided with PowerPoint, text problem solutions and lab follow-up on the site.
- Introduction to magnetism in Chapter 7 has been expanded, with numerous new photos to convey a visual understanding of magnetic fields.
- Modern coverage of voltage dividers and regulators now provided in Chapter 5.
- Node voltages techniques have been added to Chapter 5, Complex Circuits.
- Residential Wiring coverage in Chapter 16 now includes circuit inter-rupters; and all material has been updated to reflect 2005 NEC code.
- Brushless DC motor coverage added to Chapter 17.
- PowerPoint lessons have been revised and updated, with video clips added in several places.
- CPS from eInstruction is available to adopters; it links directly to the PowerPoint and electronic test questions provided with the text.
- Frequent Self-Test questions and worked examples provide students with immediate feedback and step-by-step procedures for learning key concepts and applications.

Electricity & Electronics

- Bound-in CD ROM includes MultiSim simulation files for the circuits included in the text and the Experiments Manual, in MultiSim 7. New simulation examples have been added to the text, lab manual and CD ROM.

FEATURES

- Practical, easy-to-understand explanation of DC and AC circuits; students with limited math background will find the book readable and accessible.
- Experiments Manual for Electricity: Principles and Applications correlates with the text and helps students gain practical, hands-on experience and troubleshooting skills. MultiSim files are available for those who integrate simulation with their lab experiments.

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Wiring



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Electricity & Electronics

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