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## **KEY=CIRCUIT - SWANSON HOWARD**

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### **ELECTRIC CIRCUITS FUNDAMENTALS**

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*Oxford University Press on Demand This exciting new text teaches the foundations of electric circuits and develops a thinking style and a problem-solving methodology that is based on physical insight. Designed for the first course or sequence in circuits in electrical engineering, the approach imparts not only an appreciation for the elegance of the mathematics of circuit theory, but a genuine "feel" for a circuit's physical operation. This will benefit students not only in the rest of the curriculum, but in being able to cope with the rapidly changing technology they will face on-the-job. The text covers all the traditional topics in a way that holds students' interest. The presentation is only as mathematically rigorous as is needed, and theory is always related to real-life situations. Franco introduces ideal transformers and amplifiers early on to stimulate student interest by giving a taste of actual engineering practice. This is followed by extensive coverage of the operational amplifier to provide a practical illustration of abstract but fundamental concepts such as impedance transformation and root location control--always with a vigilant eye on the underlying physical basis. SPICE is referred to throughout the text as a means for checking the results of hand calculations, and in separate end-of-chapter sections, which introduce the most important SPICE features at the specific points in the presentation at which students will find them most useful. Over 350 worked examples, 400-plus exercises, and 1000 end-of-chapter problems help students develop an engineering approach to problem solving based on conceptual understanding and physical intuition rather than on rote procedures.*

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### **ELECTRIC CIRCUITS FUNDAMENTALS**

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*Oxford University Press These practice problems are designed to supplement any first year circuit analysis text. They contain detailed, logical solutions and cover basic concepts included normally in any introductory circuit course.*

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### **DESIGN WITH OPERATIONAL AMPLIFIERS AND ANALOG INTEGRATED CIRCUITS**

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*Franco's "Design with Operational Amplifiers and Analog Integrated Circuits, 4e" combines theory with real-life applications to deliver a straightforward look at analog design principles and techniques. An emphasis on the physical picture helps the student develop the intuition and practical insight that are the keys to making sound design decisions. The book is intended for a design-oriented course in applications with operational amplifiers and analog ICs. It also serves as a comprehensive reference for practicing engineers. This new edition includes enhanced pedagogy (additional problems, more in-depth coverage of negative feedback, more effective layout), updated technology (current-feedback and folded-cascode amplifiers, and low-voltage amplifiers), and increased topical coverage (current-feedback amplifiers, switching regulators and phase-locked loops).*

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### **CALCULUS**

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## **EARLY TRANSCENDENTALS SINGLE VARIABLE**

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*Wiley* Designed for the freshman/sophomore Calculus I-II-III sequence, the eighth edition continues to evolve to fulfill the needs of a changing market by providing flexible solutions to teaching and learning needs of all kinds. The new edition retains the strengths of earlier editions such as Anton's trademark clarity of exposition, sound mathematics, excellent exercises and examples, and appropriate level. Anton also incorporates new ideas that have withstood the objective scrutiny of many skilled and thoughtful instructors and their students.

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## **EXPERIMENTS IN ELECTRONICS FUNDAMENTALS AND ELECTRIC CIRCUITS FUNDAMENTALS**

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### **STEEL DESIGN**

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*Cengage Learning* STEEL DESIGN covers the fundamentals of structural steel design with an emphasis on the design of members and their connections, rather than the integrated design of buildings. The book is designed so that instructors can easily teach LRF, ASD, or both, time-permitting. The application of fundamental principles is encouraged for design procedures as well as for practical design, but a theoretical approach is also provided to enhance student development. While the book is intended for junior-and senior-level engineering students, some of the later chapters can be used in graduate courses and practicing engineers will find this text to be an essential reference tool for reviewing current practices. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

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### **INTRODUCTION TO PROBABILITY MODELS**

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*Elsevier* Ross's classic bestseller has been used extensively by professionals and as the primary text for a first undergraduate course in applied probability. With the addition of several new sections relating to actuaries, this text is highly recommended by the Society of Actuaries.

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### **ELECTRONICS FUNDAMENTALS**

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### **CIRCUITS, DEVICES, AND APPLICATIONS**

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*Prentice Hall* This text provides optional computer analysis exercises in selected examples, troubleshooting sections, & applications assignments. It uses frank explanations & limits maths to only what's needed for understanding electric circuits fundamentals.

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### **ANALOG CIRCUIT DESIGN**

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### **DISCRETE AND INTEGRATED**

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Places emphasis on developing intuition and physical insight. This title includes numerous examples and problems that have been carefully thought out to promote problem solving methodologies of the type engineers apply daily on the job.

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### **ANALOG CIRCUIT DESIGN**

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### **ART, SCIENCE, AND PERSONALITIES**

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*Elsevier* Analog Circuit Design

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### **BASIC ELECTRIC CIRCUIT THEORY**

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### **A ONE-SEMESTER TEXT**

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*Academic Press* This is the only book on the market that has been conceived and deliberately written as a one-semester text on basic electric circuit theory. As such, this book employs a novel approach to the exposition of the material in which phasors and ac steady-state analysis are introduced at the beginning. This allows one to use phasors in the discussion of transients excited by ac sources, which

makes the presentation of transients more comprehensive and meaningful. Furthermore, the machinery of phasors paves the road to the introduction of transfer functions, which are then used in the analysis of transients and the discussion of Bode plots and filters. Another salient feature of the text is the consolidation into one chapter of the material concerned with dependent sources and operational amplifiers. Dependent sources are introduced as linear models for transistors on the basis of small signal analysis. In the text, PSpice simulations are prominently featured to reinforce the basic material and understanding of circuit analysis. Key Features \* Designed as a comprehensive one-semester text in basic circuit theory \* Features early introduction of phasors and ac steady-state analysis \* Covers the application of phasors and ac steady-state analysis \* Consolidates the material on dependent sources and operational amplifiers \* Places emphasis on connections between circuit theory and other areas in electrical engineering \* Includes PSpice tutorials and examples \* Introduces the design of active filters \* Includes problems at the end of every chapter \* Priced well below similar books designed for year-long courses

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## CALCULUS

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Wiley

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## ELECTRIC CIRCUITS

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Cengage Learning Now readers can master the fundamentals of electric circuits with Kang's *ELECTRIC CIRCUITS*. Readers learn the basics of electric circuits with common design practices and simulations as the book presents clear step-by-step examples, practical exercises, and problems. Each chapter includes several examples and problems related to circuit design, with answers for odd-numbered questions so learners can further prepare themselves with self-guided study and practice. *ELECTRIC CIRCUITS* covers everything from DC circuits and AC circuits to Laplace transformed circuits. MATLAB scripts for certain examples give readers an alternate method to solve circuit problems, check answers, and reduce laborious derivations and calculations. This edition also provides PSpice and Simulink examples to demonstrate electric circuit simulations. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

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## NEURAL ENGINEERING

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Springer Science & Business Media *Neural Engineering, 2nd Edition*, contains reviews and discussions of contemporary and relevant topics by leading investigators in the field. It is intended to serve as a textbook at the graduate and advanced undergraduate level in a bioengineering curriculum. This principles and applications approach to neural engineering is essential reading for all academics, biomedical engineers, neuroscientists, neurophysiologists, and industry professionals wishing to take advantage of the latest and greatest in this emerging field.

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## FIELD AND WAVE ELECTROMAGNETICS

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Pearson Education India

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## ELECTRIC CIRCUITS FUNDAMENTALS

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Oxford University Press, USA This exciting new text teaches the foundations of electric circuits and develops a thinking style and a problem-solving methodology that is based on physical insight. Designed for the first course or sequence in circuits in electrical engineering, the approach imparts not only an appreciation for the elegance of the mathematics of circuit theory, but a genuine feel for a circuit's physical operation. This will benefit students not only in the rest of the curriculum, but in being able to cope with the rapidly changing technology they will face on-the-job. The text covers all the traditional topics in a way that holds students' interest. The presentation is only as mathematically rigorous as is needed, and theory is always related to real-life situations. Franco introduces ideal transformers and amplifiers early on to stimulate student interest by giving a taste of actual engineering practice. This is followed by extensive coverage of the operational amplifier to provide a practical illustration of abstract but fundamental concepts such as impedance transformation and root location control--always with a vigilant eye on the underlying physical basis. SPICE is referred to throughout the text as a means for checking the results of hand calculations, and in separate end-of-chapter sections, which introduce the most important SPICE features at the specific points in the presentation at which students will find them most useful. Over 350 worked examples, 400-plus exercises, and 1000 end-of-chapter problems help students develop an engineering approach to problem solving based on conceptual understanding and physical intuition rather than on rote procedures

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## INTELLIGENT COMPUTING TECHNIQUES FOR SMART ENERGY SYSTEMS

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## PROCEEDINGS OF ICTSES 2018

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*Springer Nature* The book compiles the research works related to smart solutions concept in context to smart energy systems, maintaining electrical grid discipline and resiliency, computational collective intelligence consisted of interaction between smart devices, smart environments and smart interactions, as well as information technology support for such areas. It includes high-quality papers presented in the International Conference on Intelligent Computing Techniques for Smart Energy Systems organized by Manipal University Jaipur. This book will motivate scholars to work in these areas. The book also prophesies their approach to be used for the business and the humanitarian technology development as research proposal to various government organizations for funding approval.

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## OPERATIONAL AMPLIFIERS

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### THEORY AND DESIGN

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*Springer* This proven textbook guides readers to a thorough understanding of the theory and design of operational amplifiers (OpAmps). The core of the book presents systematically the design of operational amplifiers, classifying them into a periodic system of nine main overall configurations, ranging from one gain stage up to four or more stages. This division enables circuit designers to recognize quickly, understand, and choose optimal configurations. Characterization of operational amplifiers is given by macro models and error matrices, together with measurement techniques for their parameters. Definitions are given for four types of operational amplifiers depending on the grounding of their input and output ports. Many famous designs are evaluated in depth, using a carefully structured approach enhanced by numerous figures. In order to reinforce the concepts introduced and facilitate self-evaluation of design skills, the author includes problems with detailed solutions, as well as simulation exercises.

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## BIOPROCESS ENGINEERING PRINCIPLES

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*Elsevier* The emergence and refinement of techniques in molecular biology has changed our perceptions of medicine, agriculture and environmental management. Scientific breakthroughs in gene expression, protein engineering and cell fusion are being translated by a strengthening biotechnology industry into revolutionary new products and services. Many a student has been enticed by the promise of biotechnology and the excitement of being near the cutting edge of scientific advancement. However, graduates trained in molecular biology and cell manipulation soon realise that these techniques are only part of the picture. Reaping the full benefits of biotechnology requires manufacturing capability involving the large-scale processing of biological material. Increasingly, biotechnologists are being employed by companies to work in co-operation with chemical engineers to achieve pragmatic commercial goals. For many years aspects of biochemistry and molecular genetics have been included in chemical engineering curricula, yet there has been little attempt until recently to teach aspects of engineering applicable to process design to biotechnologists. This textbook is the first to present the principles of bioprocess engineering in a way that is accessible to biological scientists. Other texts on bioprocess engineering currently available assume that the reader already has engineering training. On the other hand, chemical engineering textbooks do not consider examples from bioprocessing, and are written almost exclusively with the petroleum and chemical industries in mind. This publication explains process analysis from an engineering point of view, but refers exclusively to the treatment of biological systems. Over 170 problems and worked examples encompass a wide range of applications, including recombinant cells, plant and animal cell cultures, immobilised catalysts as well as traditional fermentation systems. \*\* First book to present the principles of bioprocess engineering in a way that is accessible to biological scientists \* Explains process analysis from an engineering point of view, but uses worked examples relating to biological systems \* Comprehensive, single-authored \* 170 problems and worked examples encompass a wide range of applications, involving recombinant plant and animal cell cultures, immobilized catalysts, and traditional fermentation systems \* 13 chapters, organized according to engineering sub-disciplines, are grouped in four sections - Introduction, Material and Energy Balances, Physical Processes, and Reactions and Reactors \* Each chapter includes a set of problems and exercises for the student, key references, and a list of suggestions for further reading \* Includes useful appendices, detailing conversion factors, physical and chemical property data, steam tables, mathematical rules, and a list of symbols used \* Suitable for course adoption - follows closely curricula used on most bioprocessing and process biotechnology courses at senior undergraduate and graduate levels.

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## HANDBOOK OF OPERATIONAL AMPLIFIER CIRCUIT DESIGN

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Introduction to operational amplifiers. Fundamentals of circuit design using op amps. Feedback stability. Amplifiers. Comparators. Converters. Demodulators and discriminators. Detectors. Differential amplifiers. Low-pass filters. High-pass filters. Bandpass filters. Bandstop filters. Frequency control. Integrators and differentiators. Limiters and rectifiers. Logarithmic circuits. Modulators. Oscillators. Parameter enhancement and simulation. Power circuits. Regulators. Sampling circuits. Time and phase circuits. Waveform generators. Appendix: Operational amplifier parameters. Operational amplifier maximum ratings. Circuit fabrication techniques. Notation used in handbook. Decibel calculations. RC circuit characteristics.

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## **ANALOG CIRCUITS**

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Newnes Newnes has worked with Robert Pease, a leader in the field of analog design to select the very best design-specific material that we have to offer. The Newnes portfolio has always been known for its practical no nonsense approach and our design content is in keeping with that tradition. This material has been chosen based on its timeliness and timelessness. Designers will find inspiration between these covers highlighting basic design concepts that can be adapted to today's hottest technology as well as design material specific to what is happening in the field today. As an added bonus the editor of this reference tells you why this is important material to have on hand at all times. A library must for any design engineers in these fields. \*Hand-picked content selected by analog design legend Robert Pease \*Proven best design practices for op amps, feedback loops, and all types of filters \*Case histories and design examples get you off and running on your current project

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## **A FIRST LAB IN CIRCUITS AND ELECTRONICS**

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Oxford University Press, USA Written by an award-winning educator and researcher, the sixteen experiments in this book have been extensively class-tested and fine-tuned. This lab manual, like no other, provides an exciting, active exploration of concepts and measurements and encourages students to tinker, experiment, and become creative on their own. This benefits their further study and subsequent professional work. The manual includes self-contained background for all electronics experiments, so that the lab can be run concurrently with any circuits or electronics course, at any level. It uses circuits in real applications which students can relate to, in order to motivate them and convince them that what they learn is for real. As a result, the material is not only made interesting, but helps motivate further study in circuits, electronics, communications and semiconductor devices. **EXTENSIVE INSTRUCTOR RESOURCES:** \* Putting the Lab Together is an extensive resource for instructors who are considering starting a lab based on this book. Includes an overview of a typical lab station, suggestions for choosing measurement equipment, equipment list with relevant information, and detailed information on parts required. This resource is openly available. \* Instructor's Manual includes hints for choosing lab TAs, hints on how to run the lab experiments, guidelines for shortening or combining experiments, answers to experiment questions, and suggestions for projects and exams. This manual is available to instructors who adopt the book.

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## **ANALYSIS AND DESIGN OF DIGITAL INTEGRATED CIRCUITS**

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### **IN DEEP SUBMICRON TECHNOLOGY**

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McGraw-Hill Incorporated The third edition of Hodges and Jackson's Analysis and Design of Digital Integrated Circuits has been thoroughly revised and updated by a new co-author, Resve Saleh of the University of British Columbia. The new edition combines the approachability and concise nature of the Hodges and Jackson classic with a complete overhaul to bring the book into the 21st century. The new edition has replaced the emphasis on BiPolar with an emphasis on CMOS. The outdated MOS transistor model used throughout the book will be replaced with the now standard deep submicron model. The material on memory has been expanded and updated. As well the book now includes more on SPICE simulation and new problems that reflect recent technologies. The emphasis of the book is on design, but it does not neglect analysis and has as a goal to provide enough information so that a student can carry out analysis as well as be able to design a circuit. This book provides an excellent and balanced introduction to digital circuit design for both students and professionals.

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## **SENSOR TECHNOLOGY HANDBOOK**

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Newnes Without sensors most electronic applications would not exist they perform a vital function, namely providing an interface to the real world. The importance of sensors, however, contrasts with the limited information available on them. Today's smart sensors, wireless sensors, and microtechnologies are revolutionizing sensor design and applications. This volume is an up-to-date and comprehensive sensor reference guide to be used by engineers and scientists in industry, research, and academia to help with their sensor selection and system design. It is filled with hard-to-find information, contributed by noted engineers and companies working in the field today. The book will offer guidance on selecting, specifying, and using the optimum sensor for any given application. The editor-in-chief, Jon Wilson, has years of experience in the sensor industry and leads workshops and seminars on sensor-related topics. In addition to background information on sensor technology, measurement, and data acquisition, the handbook provides detailed information on each type of sensor technology, covering: technology fundamentals sensor types, w/ advantages/disadvantages manufacturers selecting and specifying sensors applicable standards (w/ urls of related web sites) interfacing information, with hardware and software info design techniques and tips, with design examples latest and future developments The handbook also contains information on the latest MEMS and nanotechnology sensor applications. In addition, a CD-ROM will accompany the volume containing a fully searchable pdf version of the text, along with various design tools and useful software. \*the only comprehensive book on sensors available! \*jam-packed with over 800 pages of techniques and tips, detailed design examples, standards, hardware and software interfacing information, and manufacturer pros/cons to help make the best sensor selection for any design \*covers sensors from A to Z- from basic technological fundamentals, to cutting-edge info. on the latest MEMS and the hottest nanotechnology applications

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## PRINCIPLES OF FOUNDATION ENGINEERING

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Cengage Learning Master the core concepts and applications of foundation analysis and design with Das/Sivakugan's best-selling PRINCIPLES OF FOUNDATION ENGINEERING, 9th Edition. Written specifically for those studying undergraduate civil engineering, this invaluable resource by renowned authors in the field of geotechnical engineering provides an ideal balance of today's most current research and practical field applications. A wealth of worked-out examples and figures clearly illustrate the work of today's civil engineer, while timely information and insights help readers develop the critical skills needed to properly apply theories and analysis while evaluating soils and foundation design. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

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## ELECTRIC MACHINERY FUNDAMENTALS

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Electric Machinery Fundamentals continues to be a best-selling machinery text due to its accessible, student-friendly coverage of the important topics in the field. Chapman's clear writing persists in being one of the top features of the book. Although not a book on MATLAB, the use of MATLAB has been enhanced in the fourth edition. Additionally, many new problems have been added and remaining ones modified. Electric Machinery Fundamentals is also accompanied by a website that provides solutions for instructors, as well as source code, MATLAB tools, and links to important sites for students.

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## THE ELECTRICAL ENGINEERING HANDBOOK - SIX VOLUME SET, THIRD EDITION

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CRC Press In two editions spanning more than a decade, The Electrical Engineering Handbook stands as the definitive reference to the multidisciplinary field of electrical engineering. Our knowledge continues to grow, and so does the Handbook. For the third edition, it has grown into a set of six books carefully focused on specialized areas or fields of study. Each one represents a concise yet definitive collection of key concepts, models, and equations in its respective domain, thoughtfully gathered for convenient access. Combined, they constitute the most comprehensive, authoritative resource available. Circuits, Signals, and Speech and Image Processing presents all of the basic information related to electric circuits and components, analysis of circuits, the use of the Laplace transform, as well as signal, speech, and image processing using filters and algorithms. It also examines emerging areas such as text to speech synthesis, real-time processing, and embedded signal processing. Electronics, Power Electronics, Optoelectronics, Microwaves, Electromagnetics, and Radar delves into the fields of electronics, integrated circuits, power electronics, optoelectronics, electromagnetics, light waves, and radar, supplying all of the basic information required for a deep understanding of each area. It also devotes a section to electrical effects and devices and explores the emerging fields of microlithography and power electronics. Sensors, Nanoscience, Biomedical Engineering, and Instruments provides thorough coverage of sensors, materials and nanoscience, instruments and measurements, and biomedical systems and devices, including all of the basic information required to thoroughly understand each area. It explores the emerging fields of sensors, nanotechnologies, and biological effects. Broadcasting and Optical Communication Technology explores communications, information theory, and devices, covering all of the basic information needed for a thorough understanding of these areas. It also examines the emerging areas of adaptive estimation and optical communication. Computers, Software Engineering, and Digital Devices examines digital and logical devices, displays, testing, software, and computers, presenting the fundamental concepts needed to ensure a thorough understanding of each field. It treats the emerging fields of programmable logic, hardware description languages, and parallel computing in detail. Systems, Controls, Embedded Systems, Energy, and Machines explores in detail the fields of energy devices, machines, and systems as well as control systems. It provides all of the fundamental concepts needed for thorough, in-depth understanding of each area and devotes special attention to the emerging area of embedded systems. Encompassing the work of the world's foremost experts in their respective specialties, The Electrical Engineering Handbook, Third Edition remains the most convenient, reliable source of information available. This edition features the latest developments, the broadest scope of coverage, and new material on nanotechnologies, fuel cells, embedded systems, and biometrics. The engineering community has relied on the Handbook for more than twelve years, and it will continue to be a platform to launch the next wave of advancements. The Handbook's latest incarnation features a protective slipcase, which helps you stay organized without overwhelming your bookshelf. It is an attractive addition to any collection, and will help keep each volume of the Handbook as fresh as your latest research.

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## PSPICE MANUAL FOR ELECTRIC CIRCUITS FUNDAMENTALS

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Oxford University Press, USA Chapters in this manual are arranged to match the topics covered in the text. Each chapter introduces device definitions and/or PSpice commands along with examples.

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## SPICE

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New York : Oxford University Press In many cases, new designers of electronic circuits blindly search for ways to improve the design itself using a brute-force, hit-and-miss approach. The intention of this book is to avoid this pitfall by teaching readers what not to do with SPICE. This is accomplished by keying each example in this text to those presented in Sedra and Smith's Microelectronic Circuits 3/E, where a complete hand analysis is provided.

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**HANDBOOK OF SPORTS MEDICINE AND SCIENCE, THE PARALYMPIC ATHLETE**

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Wiley-Blackwell This brand new Handbook addresses Paralympic sports and athletes, providing practical information on the medical issues, biological factors in the performance of the sports and physical conditioning. The book begins with a comprehensive introduction of the Paralympic athlete, followed by discipline-specific reviews from leading authorities in disability sport science, each covering the biomechanics, physiology, medicine, philosophy, sociology and psychology of the discipline. The Paralympic Athlete also addresses recent assessment and training tools to enhance the performance of athletes, particularly useful for trainers and coaches, and examples of best practice on athletes' scientific counseling are also presented. This new title sits in a series of specialist reference volumes, ideal for the use of professionals working directly with competitive athletes.

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**BASIC ELECTRICAL ENGINEERING**

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S. Chand Publishing For close to 30 years, "Basic Electrical Engineering" has been the go-to text for students of Electrical Engineering. Emphasis on concepts and clear mathematical derivations, simple language coupled with systematic development of the subject aided by illustrations makes this text a fundamental read on the subject. Divided into 17 chapters, the book covers all the major topics such as DC Circuits, Units of Work, Power and Energy, Magnetic Circuits, fundamentals of AC Circuits and Electrical Instruments and Electrical Measurements in a straightforward manner for students to understand.

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**IEEE CIRCUITS & DEVICES**

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**MACHINE DRAWING**

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New Age International About the Book: Written by three distinguished authors with ample academic and teaching experience, this textbook, meant for diploma and degree students of Mechanical Engineering as well as those preparing for AMIE examination, incorporates the latest st

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**MICROELECTRONIC CIRCUITS**

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Oxford University Press, USA Microelectronic Circuits by Sedra and Smith has served generations of electrical and computer engineering students as the best and most widely-used text for this required course. Respected equally as a textbook and reference, "Sedra/Smith" combines a thorough presentation of fundamentals with an introduction to present-day IC technology. It remains the best text for helping students progress from circuit analysis to circuit design, developing design skills and insights that are essential to successful practice in the field. Significantly revised with the input of two new coauthors, slimmed down, and updated with the latest innovations, Microelectronic Circuits, Eighth Edition, remains the gold standard in providing the most comprehensive, flexible, accurate, and design-oriented treatment of electronic circuits available today.

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**POWER SEMICONDUCTOR CONTROLLED DRIVES**

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A study of power semiconductor controlled drives that contain dc, induction and synchronous motors. Discusses the dynamics of motor and load systems; open and closed-loop drives; and thyristor, power transistor, and GTO converters. Also reviews arc drives, brushless and commutatorless dc drives, and rectifier controlled dc drives. Annotation copyrighted by Book News, Inc., Portland, OR

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**FUNDAMENTALS OF ELECTRIC DRIVES**

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CI-Engineering This text fills a need for a textbook that presents the basic topics and fundamental concepts underlying electric machines, power electronics, and electric drives for electrical engineering students at the undergraduate level. Most existing books on electric drives concentrate either on converters and waveform analysis (ignoring mechanical load dynamics), or on motor characteristics (giving short shrift to analysis of converters and controllers). This book provides a complete overview of the subject, at the right level for EE students. The book takes readers through the analysis and design of a complete electric drives system, including coverage of mechanical loads, motors, converters, sensing, and controllers. In addition to serving as a text, this book serves as a useful and practical reference for professional electric drives engineers.

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**FUNDAMENTALS OF ELECTRIC CIRCUITS**

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McGraw-Hill Europe Alexander and Sadiku's fifth edition of Fundamentals of Electric Circuits continues in the spirit of its successful previous editions, with the objective of presenting circuit analysis in a

manner that is clearer, more interesting, and easier to understand than other, more traditional texts. Students are introduced to the sound, six-step problem solving methodology in chapter one, and are consistently made to apply and practice these steps in practice problems and homework problems throughout the text. A balance of theory, worked examples and extended examples, practice problems, and real-world applications, combined with over 468 new or changed homework problems for the fifth edition and robust media offerings, renders the fifth edition the most comprehensive and student-friendly approach to linear circuit analysis. This edition retains the Design a Problem feature which helps students develop their design skills by having the student develop the question as well as the solution. There are over 100 Design a Problem exercises integrated into the problem sets in the book.

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### **THEORY OF MACHINES AND MECHANISMS**

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The second edition of Shigley-Uicker maintains the tradition of being very complete, thorough, and somewhat theoretical. The principal changes include an expansion and updating of the dynamics material, expansion of the chapter on gears, an expansion of the material on mechanisms, a new introductory chapter. Intended for the Kinematics and Dynamics course in Mechanical Engineering departments.

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### **LABORATORY EXPLORATIONS TO ACCOMPANY MICROELECTRONIC CIRCUITS**

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Designed to accompany *Microelectronic Circuits, Eighth Edition*, by Adel S. Sedra, K. C. Smith, Tony Chan Carusone and Vincent Gaudet, *Laboratory Explorations* invites students to explore the realm of real-world engineering through practical, hands-on experimentation. Taking a learning-by-doing approach, it presents labs that focus on the development of practical engineering skills and design practices. Experiments start from concepts and hand analysis, and include simulation, measurement, and post-measurement discussion components. A complete solutions manual is also available for adopting instructors.