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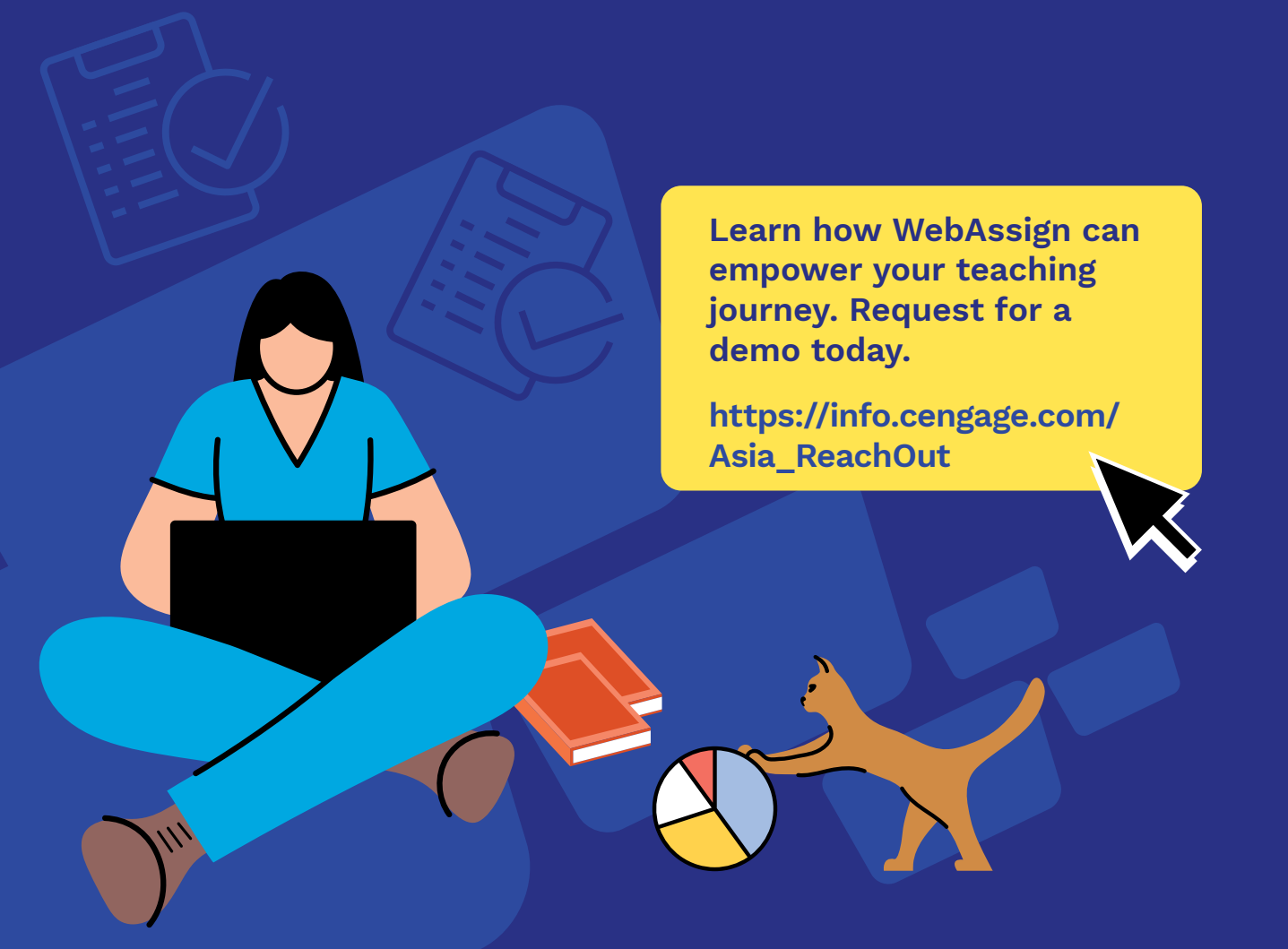

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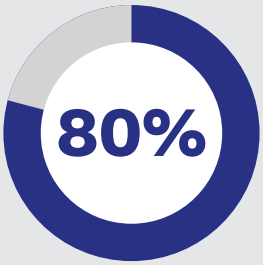

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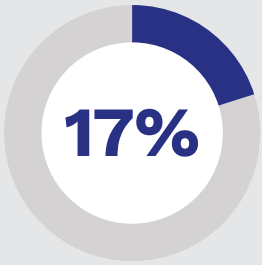

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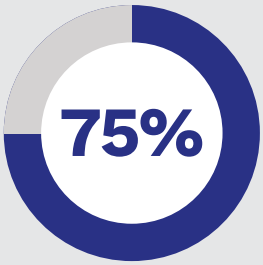

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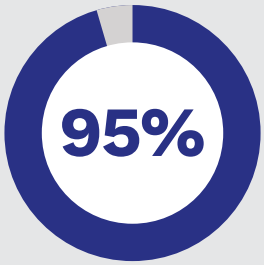

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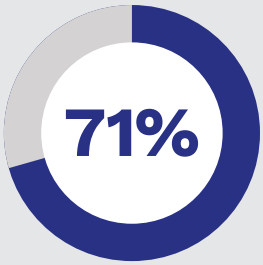

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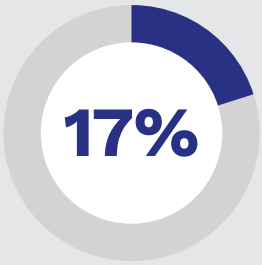

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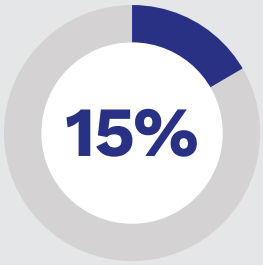

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ENGINEERING GRAPHICS

GATEWAY TO ENGINEERING, 2E

George E. Rogers, Purdue University; Michael D. Wright, University of Central Missouri; Ben Yates, Missouri University of Science and Technology

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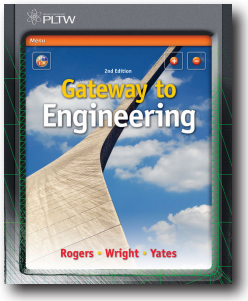

GATEWAY TO ENGINEERING, 2E helps you build a solid foundation in technological literacy as you study engineering-related careers and educational pathways. With a vibrant four-color design and images to help you visualize concepts, the text introduces the process of design, the importance of engineering graphics, and applications of electricity and electronics, mechanics, energy, communications, automation/robotics, manufacturing processes, and control systems/ computer programming. The Second Edition includes a revised chapter featuring sustainable architecture and enhanced coverage of green technology. It also retains a strong engineering flavor and alignment with national Standards for Technological Literacy, making it the perfect tool for mastering Project Lead the Way's® Gateway to Technology performance objectives.

CIVIL AND ENVIRONMENTAL ENGINEERING

FOUNDATION ENGINEERING

PRINCIPLES OF SOIL DYNAMICS, 3E

Braja M. Das, California State University, Sacramento; Zhe Luo, University of Akron, Akron, Ohio

© 2017, 608pp, Hardback, 9781305389434

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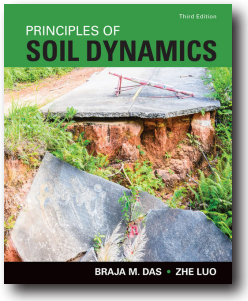

Discover the principles and applications of soil dynamics with the leading introductory textbook -- PRINCIPLES OF SOIL DYNAMICS. Written by one of today's best-selling authorities in geotechnical engineering, Braja M. Das, and Zhe Luo, Assistant Professor of Civil Engineering at the University of Akron, the latest edition of this well-established text addresses today's most recent developments and refinements in the field. This book focuses primarily on the applications of soil dynamics to prepare you for success on the job. You will find thorough coverage of the fundamentals of soil dynamics, dynamic soil properties, foundation vibration, soil liquefaction, pile foundation, and slope stability. New discussions, methods, and procedures ensure you are mastering the latest processes.

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PRINCIPLES OF FOUNDATION ENGINEERING, 8E

Braja M. Das, California State University, Sacramento

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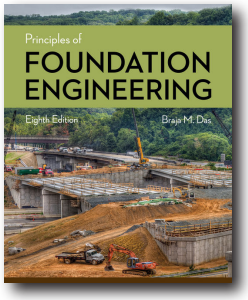

The leading text in foundation engineering courses, Das's PRINCIPLES OF FOUNDATION ENGINEERING, 8e, maintains a careful balance of current research and practical field applications as it introduces civil engineering students to the fundamental concepts of foundation analysis design.

PRINCIPLES OF FOUNDATION ENGINEERING, SI EDITION, 8E

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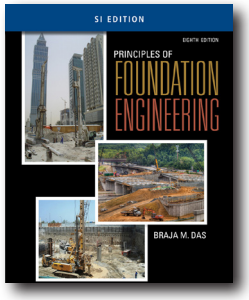

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GEOTECHNICAL ENGINEERING

PRINCIPLES OF SOIL DYNAMICS, 3E

Braja M. Das, California State University, Sacramento; Zhe Luo, University of Akron, Akron, Ohio

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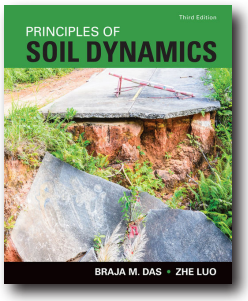

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MECHANICS OF MATERIALS

STATICS AND MECHANICS OF MATERIALS

Barry J. Goodno, Georgia Institute of Technology; James Gere, Professor Emeritus of Civil Engineering, Stanford University, California

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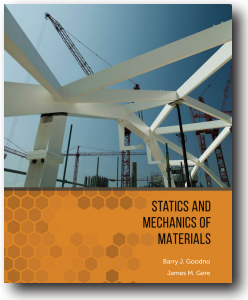

Master two essential subjects in engineering mechanics--statics and mechanics of materials--with the rigorous, complete, and integrated treatment found in STATICS AND MECHANICS OF MATERIALS. This practical text helps you establish a strong foundation for further study in mechanics that is essential whether you continue in mechanical, structural, civil, biomedical, petroleum, nuclear, aeronautical, or aerospace engineering. The authors present numerous practical problems based on real structures, using state-of-the-art graphics, photograph, and detailed drawings of freebody diagrams. All example problems and end-of-chapter problems follow a comprehensive, organized, and systematic Four-Step Problem-Solving Approach to help you strengthen important problem-solving skills and gain new insight into methods for dissecting and solving problems. This free website also contains nearly 200 FE-type review problems to help prepare you for success on the FE Exams.

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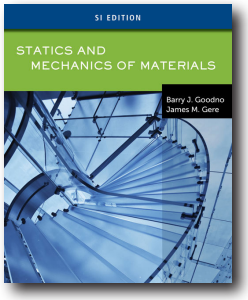

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CHEMICAL ENGINEERING

FUNDAMENTALS OF CHEMICAL ENGINEERING THERMODYNAMICS

Kevin D. Dahm, Rowan University; Donald P. Visco, Jr., Associate Dean, The University of Akron

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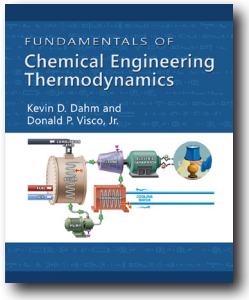

A brand new book, FUNDAMENTALS OF CHEMICAL ENGINEERING THERMODYNAMICS makes the abstract subject of chemical engineering thermodynamics more accessible to undergraduate students. The subject is presented through a problem-solving inductive (from specific to general) learning approach, written in a conversational and approachable manner. Suitable for either a one-semester course or two-semester sequence in the subject, this book covers thermodynamics in a complete and mathematically rigorous manner, with an emphasis on solving practical engineering problems. The approach taken stresses problem-solving, and draws from “best practice” engineering teaching strategies. FUNDAMENTALS OF CHEMICAL ENGINEERING THERMODYNAMICS uses examples to frame the importance of the material. Each topic begins with a motivational example that is investigated in context to that topic. This framing of the material is helpful to all readers, particularly to global learners who require “big picture” insights, and hands-on learners who struggle with abstractions. Each worked example is fully annotated with sketches and comments on the thought process behind the solved problems. Common errors are presented and explained. Extensive margin notes add to the book accessibility as well as presenting opportunities for investigation.

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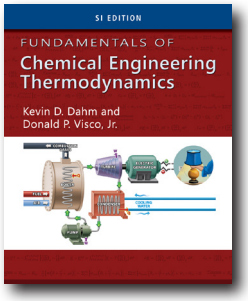

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THERMODYNAMICS FOR ENGINEERS

Kenneth A. Kroos, Villanova University; Merle C. Potter, Professor Emeritus, Michigan State University

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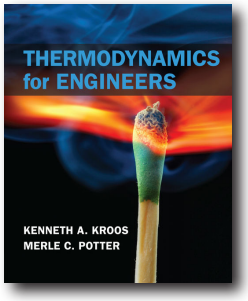

THERMODYNAMICS FOR ENGINEERS focuses on outcome-based learning, which has been identified by ABET as an essential aspect of engineering curricula. Learning outcomes are listed at the start of each chapter and identified as completed at relevant places in the text, followed by a summary at the end of each chapter. Authors Kenneth Kroos and Merle Potter bring decades of teaching experience to a clear writing style that describes key concepts without straying from the course. The language of thermodynamics is explained in careful detail so that students can quickly understand the concepts presented and the analysis techniques used. Extensive use of practical examples demonstrates the proper set-up and solution of problems. These skills are then further developed using a wide variety of homework problems. Some homework problems are presented with an increased degree of complexity to allow the instructor to challenge the more accomplished. THERMODYNAMICS FOR ENGINEERS focuses on clearly outlining the role of thermodynamics in "real" engineering. It takes students through clear explanations of concepts, followed by mathematical techniques of analysis and applications of these in solving engineering problems.

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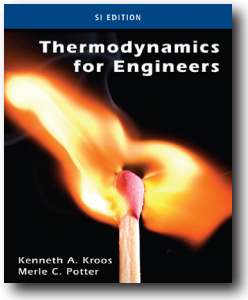

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CIVIL AND ENVIRONMENTAL ENGINEERING

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Saeed Moaveni, Professor Emeritus of Mechanical Engineering

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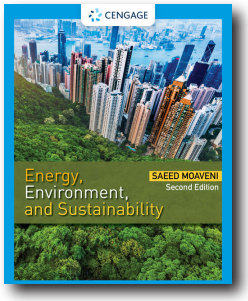

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Bradley Striebig, James Madison University; Adebayo A. Ogundipe, James Madison University; Maria Papadakis , James Madison University; Lauren G. Heine

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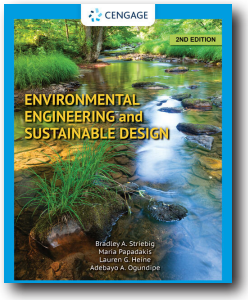

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Aslam Kassimali, Southern Illinois University, Carbondale

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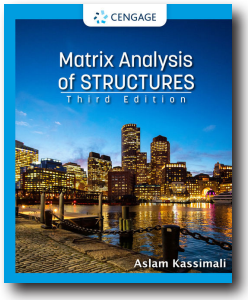

Develop an understanding of the matrix method of structural analysis with the contemporary, reader-friendly approach found in Kassimali's MATRIX ANALYSIS OF STRUCTURES, 3rd Edition. Whether you are an advanced undergraduate or graduate student, this edition serves as an excellent resource for understanding all key aspects of the matrix method of structural analysis. Unlike traditional books that are difficult to read, this edition provides understandable, clear explanations of concepts with updated photographs and diagrams as well as flowcharts. Step-by-step procedures guide you through analysis while updated, intriguing examples clarify concepts. New and current exercises include problems working with practical, real-world structures to give you meaningful practice. Trust this technically and mathematically accurate presentation to provide the foundation you need in matrix structural analysis.

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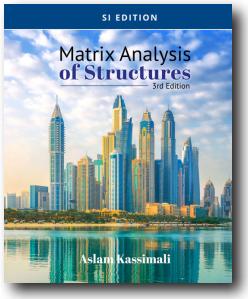

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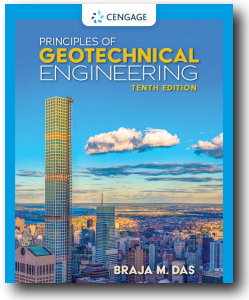

Gain a solid understanding of soil mechanics and soil properties as Das' PRINCIPLES OF GEOTECHNICAL ENGINEERING, 10th Edition introduces these topics together with coverage of the latest field practices and basic civil engineering procedures. This book provides the important foundation you need for future design-oriented courses as well as professional practice. Updates address seepage, vertical stress in soil mass, lateral earth pressure and earthquake forces, elastic settlement, shear strength of soil, unit weights of soil and plasticity. This practical approach combines comprehensive discussions and detailed explanations with almost 200 new or updated example problems to help ensure your understanding. Expanded and updated end-of-chapter problems provide opportunities to apply your knowledge. This edition also offers more figures and worked-out problems than any other book in the market to further your skills and understanding.

PRINCIPLES OF GEOTECHNICAL ENGINEERING, SI EDITION, 10E

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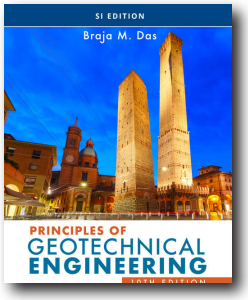

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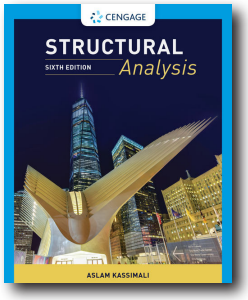

Master the basic principles of structural analysis using the classical approach found in Kassimali's distinctive STRUCTURAL ANALYSIS, 6th Edition. This edition presents concepts in a logical order, progressing from an introduction of each topic to an analysis of statically determinate beams, trusses and rigid frames, and then to the analysis of statically indeterminate structures. Practical, solved problems integrated throughout the presentation help illustrate and clarify the book's fundamental concepts, while the latest examples and timely content reflect today's most current professional standards. For further support, you can download accompanying interactive software for analyzing plane framed structures from this edition's companion website. Trust Kassimali's STRUCTURAL ANALYSIS, 6th Edition for the tools and knowledge you need for advanced study and professional success.

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STRUCTURAL ANALYSIS, SI EDITION, 6E

Aslam Kassimali, Southern Illinois University, Carbondale

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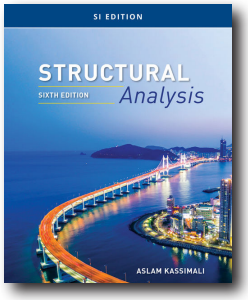

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TRAFFIC AND HIGHWAY ENGINEERING, ENHANCED EDITION, 5E

Nicholas J. Garber, University of Virginia; Lester A. Hoel, University of Virginia

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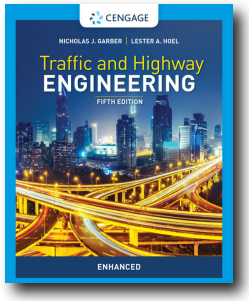

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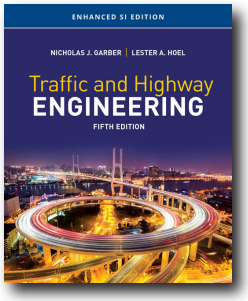

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NEW EDITION

PRINCIPLES OF FOUNDATION ENGINEERING, 10E

Braja M. Das, California State University, Sacramento

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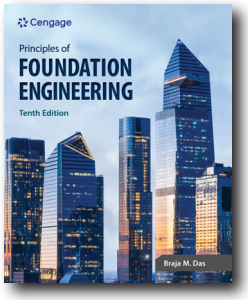

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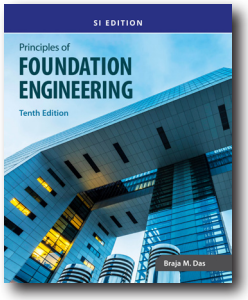

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STATICS AND MECHANICS OF MATERIALS

Barry J. Goodno, Georgia Institute of Technology; James Gere, Professor Emeritus of Civil Engineering, Stanford University, California

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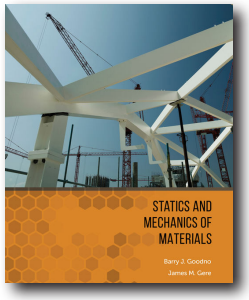

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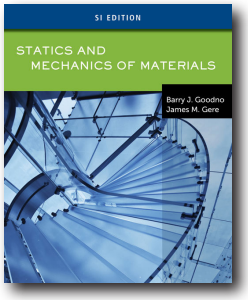

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ENERGY, ENVIRONMENT, AND SUSTAINABILITY

Saeed Moaveni, Professor Emeritus of Mechanical Engineering

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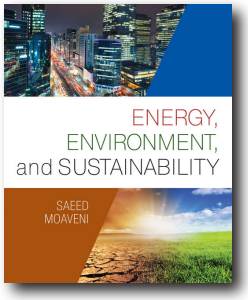

As climate change effects become increasingly important in today's world, Moaveni's ENERGY, ENVIRONMENT, AND SUSTAINABILITY helps students understand what each issue means and why it is critical to understand them. Readers learn how environmentally sound decisions involve evaluating energy and environmental footprints as well as the natural resources that are consumed to make products. Students gain an understanding of how much energy it takes to manufacture, produce, transport, use, and dispose of products. Each chapter begins with clear learning objectives and concludes with a helpful summary. Relevant, everyday examples clarify concepts. Hands-on end-of-chapter problems require students to gather and analyze information as well as prepare brief reports and presentations. Students strengthen written and oral communication skills as well as their abilities to work in teams as many problems require group work and some even require whole-class participation.

PRINCIPLES OF GEOTECHNICAL ENGINEERING, 9E

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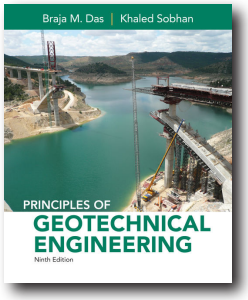

Gain a solid understanding of soil mechanics and soil properties as Das and Sobhan's PRINCIPLES OF GEOTECHNICAL ENGINEERING, 9E introduces these topics together with coverage of field practices and basic civil engineering procedures. This book provides the important foundation that you need for future studies in your design-oriented courses and in professional practice. This book ensures a practical approach by incorporating a wealth of comprehensive discussions and detailed explanations. PRINCIPLES OF GEOTECHNICAL ENGINEERING, 9E provides more figures and worked-out problems than any other book for the course to further ensure your understanding.

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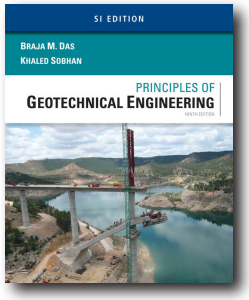

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STEEL DESIGN, 6E

William T. Segui, The University of Memphis

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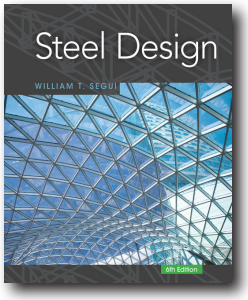

Learn the fundamentals of structural steel design with STEEL DESIGN's unique emphasis on the design of members and their connections. With this best-selling book, you can learn LRFD (Load and Resistance Factor Design) or ASD (Allowable Stress Design), depending on how your course is taught. You will master the application of fundamental principles for design procedures, as well as for practical design. You will also study the theory behind these procedures, which further strengthens your engineering knowledge. While this market-leading book is ideal for your junior-and senior-level steel design class, later chapters are also useful for graduate courses. The book functions as a valuable ongoing reference tool for success in your career as a practicing engineer.

ENGINEERING MECHANICS, 4E

Statics

Andrew Pytel, The Pennsylvania State University; Jaan Kiusalaas, The Pennsylvania State University

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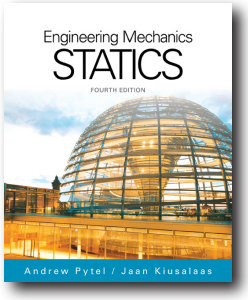

ENGINEERING MECHANICS: STATICS, 4E, written by authors Andrew Pytel and Jaan Kiusalaas, provides you with a solid understanding of statics without the overload of extraneous detail. The authors use their extensive teaching experience and first-hand knowledge to deliver a presentation that's ideally suited to your learning skills. This edition clearly introduces critical concepts using learning features that connect real problems and examples with the fundamentals of engineering mechanics. You learn how to effectively analyze problems before substituting numbers into formulas -– a skill that will benefit you tremendously as you encounter real life problems that do not always fit into standard formulas. This book's concise presentation is complemented by a useful Student Study Guide that clarifies concepts and includes guided solutions to a number of additional equilibrium problems.

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ENGINEERING MECHANICS, 4E
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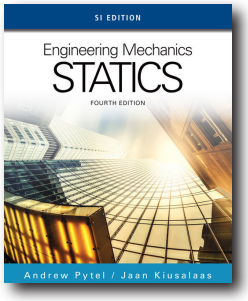

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ENGINEERING MECHANICS, 4E
Dynamics

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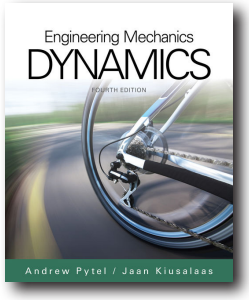

Gain a solid understanding of Newtonian dynamics and its application to real-world problems with Pytel/ Kiusalaas' ENGINEERING MECHANICS: DYNAMICS, 4E. The text focuses on both fundamental principles and important problem-solving techniques. The authors clearly introduce critical concepts using learning features that connect real problems and examples with the fundamentals of engineering mechanics. You learn how to effectively analyze problems before substituting numbers into formulas -- a skill that benefits you tremendously as you encounter real life problems that do not always fit into standard formulas. This book's concise presentation is complemented by a useful Student Study Guide that clarifies concepts and includes guided solutions to a number of additional equilibrium problems.

FUNDAMENTALS OF GEOTECHNICAL ENGINEERING, 5E

Braja M. Das, California State University, Sacramento; Nagaratnam Sivakugan, James Cook University, Queensland, Australia

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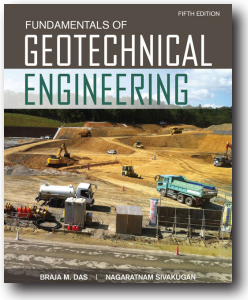

Discover the essential components of two market-leading engineering texts in one powerful combined book. FUNDAMENTALS OF GEOTECHNICAL ENGINEERING, 5E offers a concise blend of critical information from Braja Das' market leading PRINCIPLES OF GEOTECHNICAL ENGINEERING and PRINCIPLES OF FOUNDATION ENGINEERING. This valuable, cohesive book focuses on the fundamental concepts of both soil mechanics and foundation engineering without the distraction of excessive details or cumbersome alternatives. A wealth of worked-out examples and useful supporting figures help you master key concepts and gain essential problem-solving skills. Prestigious authors Das and Sivakugan carefully balance today's most current research with practical field applications in a proven approach that has made Das' books undisputed leaders in the field. Accompanying resources, including MindTap, further reinforce the key geotechnical engineering skills you need.

SOLID WASTE ENGINEERING, 3E

A Global Perspective

William A. Worrell; P. Aarne Vesilind, Bucknell University; Christian Ludwig, Paul Scherrer Institute and EPFL

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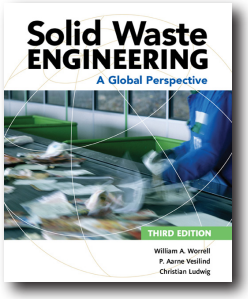

Gain the knowledge you need to address the growing and increasingly intricate problem of controlling and processing the refuse created by global urban societies with SOLID WASTE ENGINEERING: A GLOBAL PERSPECTIVE, 3E. While the authors prepare you to deal with issues, such as regulations and legislation, the main emphasis throughout the book is on mastering solid waste engineering principles. The book first explains the basic principles of the field and then demonstrates through worked examples how you can apply these principles in real world settings. Whether you are a graduate or advanced undergraduate student, or practicing engineer, you learn to think reflectively and logically about the problems and solutions in today's solid waste engineering.

SOLID WASTE ENGINEERING: A GLOBAL PERSPECTIVE, SI EDITION, 3E

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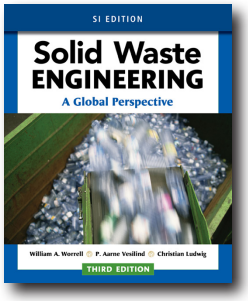

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ENGINEERING APPLICATIONS IN SUSTAINABLE DESIGN AND DEVELOPMENT

Bradley Striebig, James Madison University; Adebayo A. Ogundipe, James Madison University; Maria Papadakis , James Madison University

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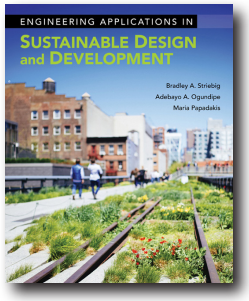

ENGINEERING APPLICATIONS IN SUSTAINABLE DESIGN AND DEVELOPMENT is an invaluable resource for today's engineering student. Focusing on pressing contemporary issues, the text puts product design in the context of models of sustainability. Relevant case studies from across the globe will be of interest to engineers in training, and active learning exercises in each chapter help students learn to apply theory to real world situations.

ENGINEERING APPLICATIONS IN SUSTAINABLE DESIGN AND DEVELOPMENT, SI EDITION

Bradley Striebig, James Madison University; Adebayo A. Ogundipe, James Madison University; Maria Papadakis , James Madison University

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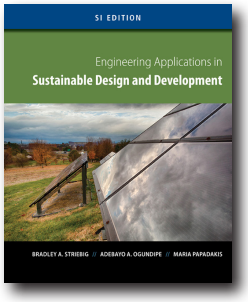

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INTRODUCTION TO GEOTECHNICAL ENGINEERING, 2E

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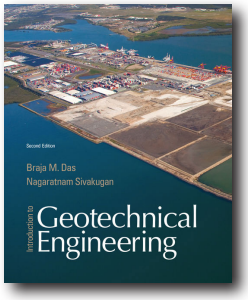

Succeed in your soils and foundation course with INTRODUCTION TO GEOTECHNICAL ENGINEERING, 2e. Written in a concise, easy-to understand manner, this proven, non-calculus-based book presents intensive research and observation in the field and lab that have improved the science of foundation design.

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STRUCTURAL ANALYSIS, 5E

Aslam Kassimali, Southern Illinois University, Carbondale

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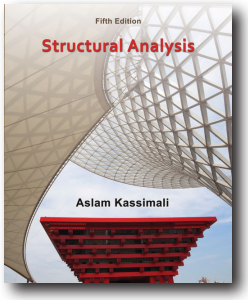

The 5th edition of STRUCTURAL ANALYSIS by Aslam Kassamali offers a learning package that includes a text that teaches students the basic principles of structural analysis using the classical approach, as well as included software to aid in their learning.

SUSTAINABLE ENERGY

Richard Dunlap, Department of Physics and Atmospheric Science at Dalhousie University

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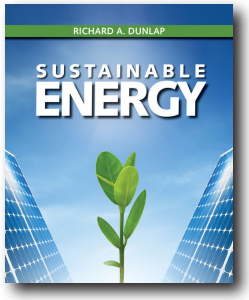

SUSTAINABLE ENERGY, a new title from author Richard Dunlap, focuses directly on energy related issues and includes a thorough treatment of all potentially viable energy sources.

SUSTAINABLE ENERGY, SI EDITION

Richard Dunlap, Department of Physics and Atmospheric Science at Dalhousie University

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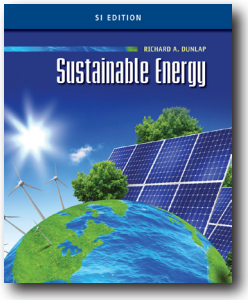

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TRAFFIC AND HIGHWAY ENGINEERING, 5E

Nicholas J. Garber, University of Virginia; Lester A. Hoel, University of Virginia

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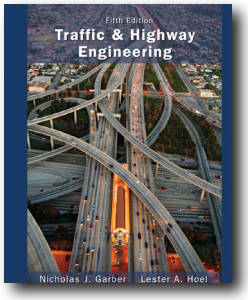

The new edition of Garber and Hoel's best-selling TRAFFIC AND HIGHWAY ENGINEERING focuses on giving students insight into all facets of traffic and highway engineering.

INTRODUCTION TO TRAFFIC ENGINEERING, 2E

A Manual for Data Collection and Analysis

Thomas R. Currin, Southern Polytechnic University

© 2013, 144pp, Paperback, 9781111578619

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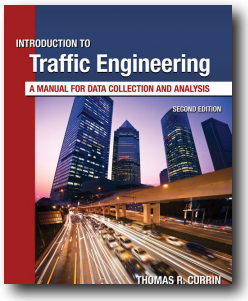

Research leading to the continuous improvement of traffic analysis techniques depends on the ongoing collection of data relating to driver behavior. INTRODUCTION TO TRAFFIC ENGINEERING: A MANUAL FOR DATA COLLECTION AND ANALYSIS is meant to aid both the student of traffic engineering and the transportation professional in sound data collection and analysis methods. It presents step-by-step techniques for several traffic engineering topics. Each topic is introduced in a consistent manner, and data collection and analysis forms are provided for each study. Studies are organized to facilitate inclusion in a formal transportation engineering report.

LEGAL ASPECTS OF ARCHITECTURE, ENGINEERING AND THE CONSTRUCTION PROCESS, 9E

Justin Sweet, University of California, Berkeley (Emeritus); Marc M. Schneier

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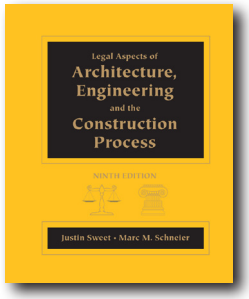

Bridging the gap between the academic world and the real world of engineering law.

MATRIX ANALYSIS OF STRUCTURES SI VERSION, 2E

Aslam Kassimali, Southern Illinois University, Carbondale

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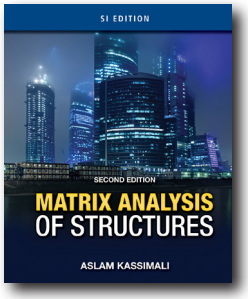

This book takes a fresh, student-oriented approach to teaching the material covered in the senior- and first-year graduate-level matrix structural analysis course. Unlike traditional texts for this course that are difficult to read, Kassimali takes special care to provide understandable and exceptionally clear explanations of concepts, step-by-step procedures for analysis, flowcharts, and interesting and modern examples, producing a technically and mathematically accurate presentation of the subject.

ELECTRICAL & COMPUTER ENGINEERING

NEW EDITION

POWER SYSTEM ANALYSIS AND DESIGN, 7E

J. Duncan Glover, Failure Electrical LLC; Mulukutla S. Sarma, Northeastern University (Emeritus); Thomas Overbye, Texas A&M University; Adam Birchfield, Texas A&M University

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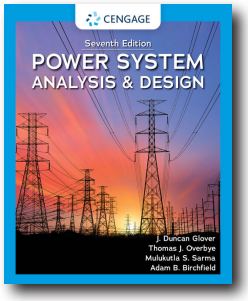

Examine the basic concepts behind today's power systems as well as the tools you need to apply your newly acquired skills to real-world situations with POWER SYSTEM ANALYSIS AND DESIGN, 7th Edition. The latest updates throughout this new edition reflect the most recent trends in the field as the authors highlight key physical concepts with clear explanations of important mathematical techniques. New co-author Adam Birchfield joins this prominent author team with fresh insights into the latest technological advancements. The authors develop theory and modeling from simple beginnings, clearly demonstrating how you can apply the principles you learn to new, more complex situations. New learning objectives and helpful case study summaries help focus your learning, while the updated PowerWorld® Simulation works seamlessly with this edition's content to provide hands-on design experience. WebAssign for Glover/Overbye/Sarma's Power System Analysis and Design, 7th Edition, helps you prepare for class with confidence. Its online learning platform for your math, statistics, science and engineering courses helps you practice and absorb what you learn.

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NEW EDITION

POWER SYSTEM ANALYSIS AND DESIGN, SI EDITION, 7E

J. Duncan Glover, Failure Electrical LLC; Mulukutla S. Sarma, Northeastern University (Emeritus); Thomas Overbye, Texas A&M University

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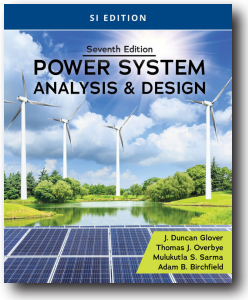

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FUNDAMENTALS OF LOGIC DESIGN, ENHANCED EDITION, 7E

Charles H. Roth, Jr., University of Texas, Austin; Larry L. Kinney, University of Minnesota; Eugene B. John, University of Texas, Austin

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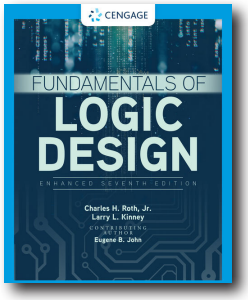

Master the principles of logic design with the exceptional balance of theory and application found in Roth/Kinney/John's FUNDAMENTALS OF LOGIC DESIGN, ENHANCED, 7th Edition. This edition introduces you to today's latest advances. The authors have carefully developed a clear presentation that introduces the fundamental concepts of logic design without overwhelming you with the mathematics of switching theory. Twenty engaging, easy-to-follow study units present basic concepts, such as Boolean algebra, logic gate design, flip-flops and state machines. You learn to design counters, adders, sequence detectors and simple digital systems. After mastering the basics, you progress to modern design techniques using programmable logic devices as well as VHDL hardware description language.

FUNDAMENTALS OF ELECTRIC DRIVES, 2E

Mohamed El-Sharkawi, University of Washington

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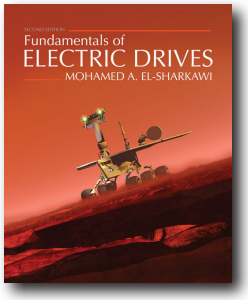

Master the basic topics and fundamental concepts underlying electric machines, power electronics, and electric drives with FUNDAMENTALS OF ELECTRIC DRIVES, 2nd Edition. While other books on electric drives concentrate on converters and waveform analysis and ignore mechanical load dynamics or emphasize motor characteristics with little analysis of converters and controllers, this unique approach provides a complete overview of the subject at a level that's ideal for full comprehension. You follow the analysis and design of a complete electric drive system with coverage of mechanical loads, motors, converters, sensing, and controllers. The author clearly presents drive applications to electric traction, robotics, and wind energy using real examples from industry throughout. With its practical content, this book even serves as a useful reference for professional electric drive engineers.

DIGITAL LOGIC AND MICROPROCESSOR DESIGN WITH INTERFACING, 2E

Enoch O. Hwang, La Sierra University

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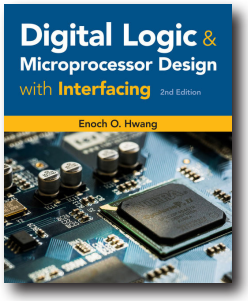

Learn how to design digital logic circuits, specifically combinational and sequential circuits, with DIGITAL LOGIC AND MICROPROCESSOR DESIGN WITH INTERFACING, 2E. This book teaches you how to put these two types of circuits together to form both dedicated and general-purpose microprocessors. This book's unique approach combines the use of logic principles with the building of individual components to create data paths and control units. With this book you are able to design simple microprocessors, implement them in real hardware, and interface them to real-world devices. Watch the exciting process as your own microprocessor comes to life in real hardware using the knowledge and skills you gain from DIGITAL LOGIC AND MICROPROCESSOR DESIGN WITH INTERFACING, 2E.

DIGITAL LOGIC AND MICROPROCESSOR DESIGN WITH INTERFACING, INTERNATIONAL EDITION, 2E

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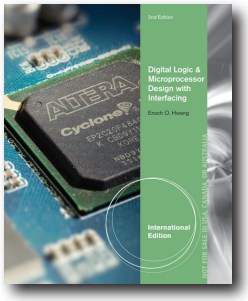

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DIGITAL SYSTEMS DESIGN USING VHDL, 3E

Charles H. Roth, Jr., University of Texas, Austin; Lizy Kurian John, University of Texas, Austin

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Learn how to effectively use the industry-standard hardware description language, VHDL, as DIGITAL SYSTEMS DESIGN USING VHDL, 3E integrates VHDL into the digital design process. The book begins with a valuable review of basic logic design concepts before introducing the fundamentals of VHDL. The book concludes with detailed coverage of advanced VHDL topics.

DIGITAL SYSTEMS DESIGN USING VHDL, INTERNATIONAL EDITION, 3E

Charles H. Roth, Jr., University of Texas, Austin; Lizy Kurian John, University of Texas, Austin

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Learn how to effectively use the industry-standard hardware description language, VHDL, as DIGITAL SYSTEMS DESIGN USING VHDL, 3E integrates VHDL into the digital design process. The book begins with a valuable review of basic logic design concepts before introducing the fundamentals of VHDL. The book concludes with detailed coverage of advanced VHDL topics.

ELECTRIC CIRCUITS

Dr. James S. Kang, California State Polytechnic University, Pomona

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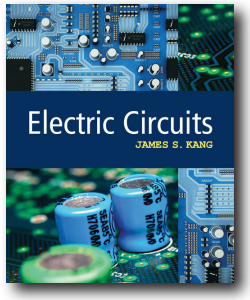

Master the fundamentals of electric circuits with Kang's ELECTRIC CIRCUITS. You learn the basics of electric circuits with common design practices and simulations as the book presents clear step-by-step examples, practical exercises, and problems. Each chapter includes several examples and problems related to circuit design with answers for odd-numbered questions so you can further prepare yourself 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 you 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.

IMAGE PROCESSING AND ANALYSIS

Stan Birchfield, Clemson University, Clemson, South Carolina; Microsoft Corporation, Redmond, Washington

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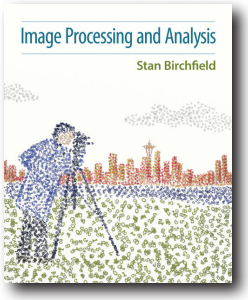

Gain a firm understanding of image processing as you cover the major topics of the field using a balanced approach that progresses from simple explanations to more detailed descriptions within IMAGE PROCESSING AND ANALYSIS. This easy-to-follow, accessible book emphasizes a basic, fundamental understanding of the classic algorithms in the field while also highlighting recent research results. You can grasp the subtle tradeoffs among different approaches as well as understand them in context with the latest developments in the field. Numerous full-color illustrations and detailed pseudocode bridge the gap between mathematical equations underlying the important concepts and real-world application of those concepts. This understanding makes it easier for you to program your own implementations of these algorithms. In addition, consistent notation throughout this edition makes it easier to follow the various concepts.

BUILDING CROSS-PLATFORM MOBILE AND WEB APPS FOR ENGINEERS AND SCIENTISTS

An Active Learning Approach

Pawan Lingras, Saint Mary's University, Halifax; Matt Triff; Rucha Lingras

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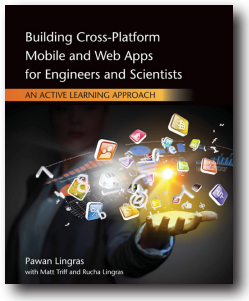

This powerful new book introduces cross-platform app design as an excellent starting point for mastering app development. The book contains numerous applications that you can adapt to different projects. You can use this book for independent study or for your project courses. The book introduces HTML5, CSS3, JavaScript, jQuery Mobile, Node.js, JSON, localStorage, sessionStorage, NoSQL using MongoDB, SQL using MySQL, templating using handlebars, and maps. A strong app-centric view emphasizes appropriate subsets of these technologies to help you develop non-trivial apps. While apps continue to evolve and change, the technologies presented form the backbone of future cross-platform app development. You will learn to work with all major mobile and web platforms using the book's active learning approach that has you typing code in parallel as the apps are developed. Exercises further encourage you to make changes to the code and evaluate resulting app behavior.

BUILDING CROSS-PLATFORM MOBILE AND WEB APPS FOR ENGINEERS AND SCIENTISTS

An Active Learning Approach, International Edition

Pawan Lingras, Saint Mary's University, Halifax; Matt Triff; Rucha Lingras

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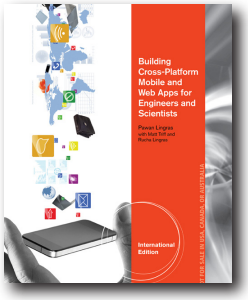

This powerful new book introduces cross-platform app design as an excellent starting point for mastering app development. The book contains numerous applications that you can adapt to different projects. You can use this book for independent study or for your project courses. The book introduces HTML5, CSS3, JavaScript, jQuery Mobile, Node.js, JSON, localStorage, sessionStorage, NoSQL using MongoDB, SQL using MySQL, templating using handlebars, and maps. A strong app-centric view emphasizes appropriate subsets of these technologies to help you develop non-trivial apps. While apps continue to evolve and change, the technologies presented form the backbone of future cross-platform app development. You will learn to work with all major mobile and web platforms using the book's active learning approach that has you typing code in parallel as the apps are developed. Exercises further encourage you to make changes to the code and evaluate resulting app behavior.

DIGITAL SIGNAL PROCESSING USING MATLAB®, 4E

A Problem Solving Companion, International Edition

Vinay K. Ingle, Northeastern University; John G. Proakis, Northeastern University

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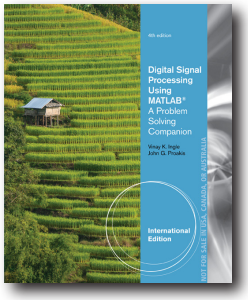

Learn to use MATLAB® as a useful computing tool for exploring traditional Digital Signal Processing (DSP) topics and solving problems to gain insight with this supplementary text. DIGITAL SIGNAL PROCESSING USING MATLAB®: A PROBLEM SOLVING COMPANION, 4E greatly expands the range and complexity of problems that you can effectively study. Since DSP applications are primarily algorithms implemented on a DSP processor or software, they require a significant amount of programming. Using interactive software, such as MATLAB®, enables you to focus on mastering new and challenging concepts rather than concentrating on programming algorithms. This edition discusses interesting, practical examples and explores useful problems. New online chapters introduce advanced topics, such as optimal filters, linear prediction, and adaptive filters, which are essential in furthering your academic studies at the graduate level.

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DIGITAL SIGNAL PROCESSING USING MATLAB®, 3E

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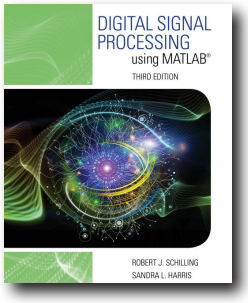

Focus on the development, implementation, and application of modern DSP techniques with DIGITAL SIGNAL PROCESSING USING MATLAB®, 3E. Written in an engaging, informal style, this edition immediately captures your attention and encourages you to explore each critical topic. Every chapter starts with a motivational section that highlights practical examples and challenges that you can solve using techniques covered in the chapter. Each chapter concludes with a detailed case study example, a chapter summary with learning outcomes, and practical homework problems cross-referenced to specific chapter sections for your convenience. DSP Companion software accompanies each book to enable further investigation. The DSP Companion software operates with MATLAB® and provides intriguing demonstrations as well as interactive explorations of analysis and design concepts.

DIGITAL SIGNAL PROCESSING USING MATLAB®, 4E

A Problem Solving Companion

Vinay K. Ingle, Northeastern University; John G. Proakis, Northeastern University

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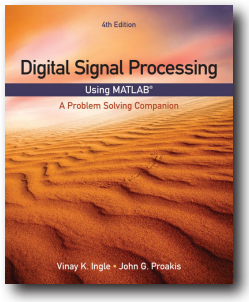

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MICROELECTRONIC CIRCUITS, 3E

Analysis and Design

Muhammad H. Rashid, University of West Florida

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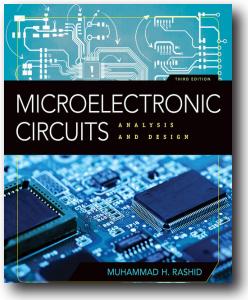

Take a "breadth-first" approach to learning electronics with a strong emphasis on design and simulation in MICROELECTRONIC CIRCUITS: ANALYSIS AND DESIGN, 3E. This book introduces the general characteristics of circuits (ICs) to prepare you to effectively use circuit design and analysis techniques. The author then offers a more detailed study of devices and circuits and how they operate within ICs. Important circuits are analyzed in worked-out examples to introduce basic techniques and emphasize the effects of parameter variations. More than half of the problems and examples concentrate on design and use software tools extensively. You learn to apply theory to real-world design problems as you master computer simulations for testing and verifying your designs.

POWER SYSTEM ANALYSIS AND DESIGN, SI EDITION, 6E

J. Duncan Glover, Failure Electrical LLC; Thomas Overbye, Texas A&M University; Mulukutla S. Sarma, Northeastern University (Emeritus)

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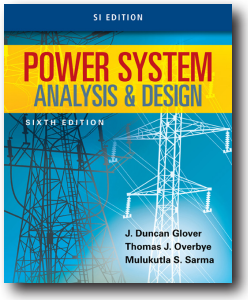

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Cengage

DIGITAL SYSTEMS DESIGN USING VERILOG

Charles Roth, University of Texas, Austin; Lizy Kurian John, University of Texas, Austin; Byeong Kil Lee, University of Texas, San Antonio

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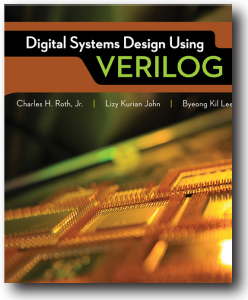

Master the process of designing and testing new hardware configurations with DIGITAL SYSTEMS DESIGN USING VERILOG. This practical book integrates coverage of logic design principles, Verilog as a hardware design language, and FPGA implementation. The authors present Verilog constructs side-by-side with hardware, encouraging you to think in terms of desired hardware while writing synthesizable Verilog. Following a review of the basic concepts of logic design, the authors introduce the basics of Verilog using simple combinational circuit examples, followed by models for simple sequential circuits. Subsequent chapters ask you to tackle more and more complex designs.

INTRODUCTION TO WIRELESS AND MOBILE SYSTEMS, 4E

Dharma P. Agrawal, University of Cincinnati; Qing-An Zeng

© 2016, 640pp, Hardback, 9781305087132

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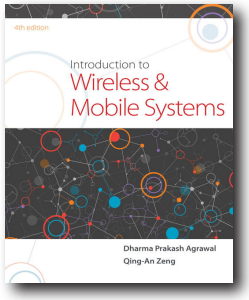

Learn how wireless systems work, how mobility is supported, what the underlying infrastructure is and what interactions are needed among different functional components with INTRODUCTION TO WIRELESS AND MOBILE SYSTEMS, 4e. Focusing on qualitative descriptions and the realistic explanations of relationships between wireless systems and performance parameters, this user-friendly book helps you learn this exciting technology through relevant examples, such as understanding how a cell phone starts working as soon as they get out of an airplane.

INTRODUCTION TO WIRELESS AND MOBILE SYSTEMS, INTERNATIONAL EDITION, 4E

Dharma P. Agrawal, University of Cincinnati; Qing-An Zeng

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ELECTRIC MACHINES, 2E

Principles, Applications, and Control Schematics

Dino Zorbas, McGill University, Montreal, Quebec, Canada

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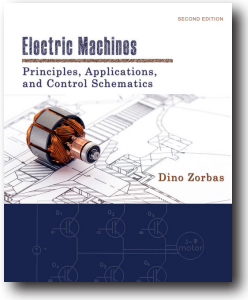

Designed to serve as a textbook for a single semester undergraduate course on electromechanical energy conversion devices or electric machines, ELECTRIC MACHINES strikes a balance between theoretical coverage, easy explanations, and practical applications, presenting real world applications of concepts without compromising on the rigor or the continuity of the text. The book provides excellent readability, in a conversational style, combined with invaluable industry insight. The accompanying website provides problems solved in MATLAB, SPICE simulations, manufacturing data, as well as additional problems for students and instructors.

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ELECTRICAL ENGINEERING IN CONTEXT

Smart Devices, Robots & Communications

Roman Kuc, Yale University

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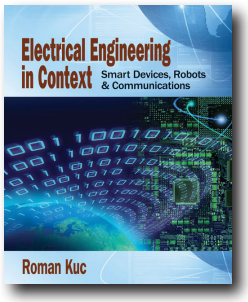

ELECTRICAL ENGINEERING IN CONTEXT: SMART DEVICES, ROBOTS & COMMUNICATIONS by bestselling author Roman Kuc describes the basic components and technologies that make today's computer-assisted systems operate and cooperate, inviting the reader to understand by participating in the design process. Directed at the undergraduate electrical engineering student, this book starts with the basics and requires a working knowledge of algebra. Rather than simple plug-and-chug exercises, the book teaches sophisticated problem-solving and design tools. Students will learn through designing digital displays, extracting information from signals, and optimizing system performance through parameter value selection and observing graphical data displays. Animations showing dynamic system behavior and relating to the book figures are available through the book's companion site. At the completion of the course, students will have an understanding of the capabilities of current digital devices and ideas for possible new applications. This will benefit students in other courses requiring quantitative skills and in their profession. To help accomplish this tall order, the book is written in a graduated intensity that can be adapted to the specific needs and talents of each student: Basic commands and graphs are used in first-level problems that illustrate device performance while varying parameter values and in designs that are open-ended, driven by student curiosity. Some problems can be solved using software packages, but many exercises are for paper and pencil solution. MATLAB based examples and problems are also included for users comfortable with computer programming.

IMAGE PROCESSING, ANALYSIS, AND MACHINE VISION, 4E

Milan Sonka, University of Iowa; Vaclav Hlavac, Czech Technical University of Prague; Roger Boyle, University of Leeds, United Kingdom

© 2015, 920pp, Hardback, 9781133593607

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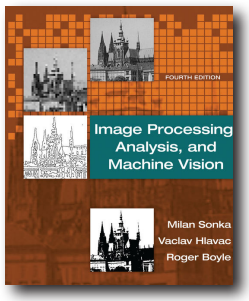

The brand new edition of IMAGE PROCESSING, ANALYSIS, AND MACHINE VISION is a robust text providing deep and wide coverage of the full range of topics encountered in the field of image processing and machine vision. As a result, it can serve undergraduates, graduates, researchers, and professionals looking for a readable reference. The book's encyclopedic coverage of topics is wide, and it can be used in more than one course (both image processing and machine vision classes). In addition, while advanced mathematics is not needed to understand basic concepts (making this a good choice for undergraduates), rigorous mathematical coverage is included for more advanced readers. It is also distinguished by its easy-to-understand algorithm descriptions of difficult concepts, and a wealth of carefully selected problems and examples.

IMAGE PROCESSING, ANALYSIS, AND MACHINE VISION, INTERNATIONAL EDITION, 4E

Milan Sonka, University of Iowa; Vaclav Hlavac, Czech Technical University of Prague; Roger Boyle, University of Leeds, United Kingdom

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THE DIGITAL INFORMATION AGE, 2E

An Introduction to Electrical Engineering

Roman Kuc, Yale University

© 2015, 400pp, Paperback, 9781305077713

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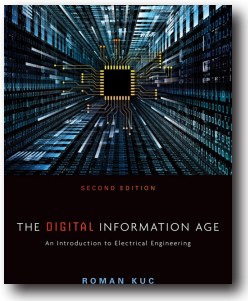

THE DIGITAL INFORMATION AGE SECOND EDITION by bestselling author Roman Kuc is designed for students considering electrical engineering as a major, and non-engineering majors interested in understanding digital communication systems. Communication between humans and smart devices takes place through sensors and actuators, with logic circuits manipulating binary data to implement useful tasks. The text then examines the basic problem of communicating audio and video data over a network connecting computers and smart devices. System operation is described from analog-to-digital conversion, signals that encode data, through the processing that extracts data from noise-corrupted signals and error correction techniques, to data packet transmission over wired and wireless networks. Basic topics from probability and digital signal processing are presented as needed and illustrated with relevant examples. Ideas are illustrated and extended by problems and projects completed in Excel, with sophistication that evolves along with the course, starting with spreadsheet formulas and graphs, through macros, to simple Visual Basic for Applications (VBA) programming that produces animations that simulate system operation. The accrued facility with Excel techniques is a course outcome valued by students in all majors.

Cengage

COMPUTER ORGANIZATION & ARCHITECTURE

Themes and Variations

Alan Clements, University of Teesside, United Kingdom

© 2014, 936pp, Hardback, 9781111987046

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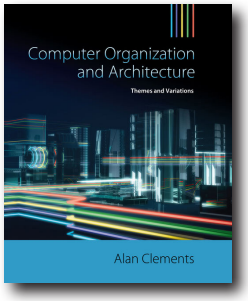


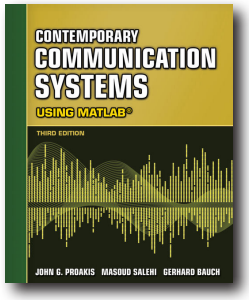
COMPUTER ORGANIZATION AND ARCHITECTURE: THEMES AND VARIATIONS stresses the structure of the complete system (CPU, memory, buses and peripherals) and reinforces that core content with an emphasis on divergent examples. This approach to computer architecture is an effective arrangement that provides sufficient detail at the logic and organizational levels appropriate for EE/ECE departments as well as for Computer Science readers. The text goes well beyond the minimal curriculum coverage and introduces topics that are important to anyone involved with computer architecture in a way that is both thought provoking and interesting to all.

CONTEMPORARY COMMUNICATION SYSTEMS USING MATLAB®, 3E

John G. Proakis, Northeastern University; Masoud Salehi, Northeastern University; Gerhard Bauch, University of Munich

© 2013, 640pp, Paperback, 9780495082514

eBook



Featuring a variety of applications that motivate students, this book serves as a companion or supplement to any of the comprehensive textbooks in communication systems. The book provides a variety of exercises that may be solved on the computer using MATLAB. By design, the treatment of the various topics is brief. The authors provide the motivation and a short introduction to each topic, establish the necessary notation, and then illustrate the basic concepts by means of an example.

SYSTEM DYNAMICS AND RESPONSE

S. Graham Kelly, University of Akron

© 2007, 719pp, Hardback, 9780534549305

eBook

As engineering systems become more increasingly interdisciplinary, knowledge of both mechanical and electrical systems has become an asset within the field of engineering. All engineers should have general facility with modeling of dynamic systems and determining their response and it is the objective of this book to provide a framework for that understanding. The study material is presented in four distinct parts; the mathematical modeling of dynamic systems, the mathematical solution of the differential equations and integro differential equations obtained during the modeling process, the response of dynamic systems, and an introduction to feedback control systems and their analysis. An Appendix is provided with a short introduction to MATLAB as it is frequently used within the text as a computational tool, a programming tool, and a graphical tool. SIMULINK, a MATLAB based simulation and modeling tool, is discussed in chapters where the development of models use either the transfer function approach or the state-space method.

GENERAL ENGINEERING

INDUSTRIAL ROBOTICS

Keith Dinwiddie, Ozarks Technical Community College

© 2019, 304pp, Paperback, 9781133610991

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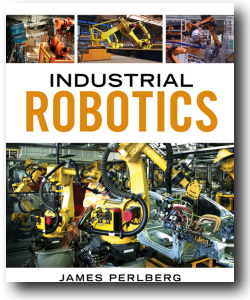

Offering current, comprehensive coverage, INDUSTRIAL ROBOTICS delivers a thorough introduction to the industry and a basic understanding of the subjects needed for starting a career in industrial robotics.

Cengage

GATEWAY TO ENGINEERING, 2E

George E. Rogers, Purdue University; Michael D. Wright, University of Central Missouri; Ben Yates, Missouri University of Science and Technology

© 2014, 480pp, Hardback, 9781133935643

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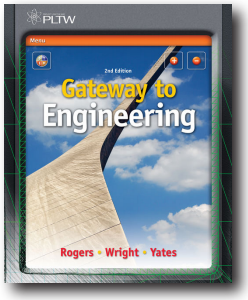

GATEWAY TO ENGINEERING, 2E helps you build a solid foundation in technological literacy as you study engineering-related careers and educational pathways. With a vibrant four-color design and images to help you visualize concepts, the text introduces the process of design, the importance of engineering graphics, and applications of electricity and electronics, mechanics, energy, communications, automation/robotics, manufacturing processes, and control systems/computer programming. The Second Edition includes a revised chapter featuring sustainable architecture and enhanced coverage of green technology. It also retains a strong engineering flavor and alignment with national Standards for Technological Literacy, making it the perfect tool for mastering Project Lead the Way's® Gateway to Technology performance objectives.

NEW EDITION

ENGINEERING FUNDAMENTALS, 7E

An Introduction to Engineering

Saeed Moaveni, Minnesota State University, Mankato

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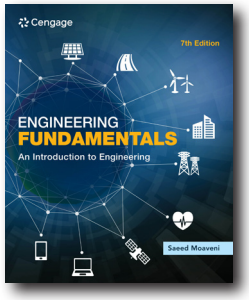

Develop the strong problem-solving skills and foundation in fundamental principles you need to become an analytical, detail-oriented and creative engineer with Moaveni's ENGINEERING FUNDAMENTALS: AN INTRODU CTION TO ENGINEERING, 7th Edition. You begin by studying what engineers do with special behind-the-scenes glimpses into areas of specialization. Updates throughout this edition candidly examine what is required to succeed as an engineer today. This edition includes a new chapter on Python and offers more content on climate change and sustainability. The author introduces basic physical concepts and laws that you will encounter in future studies as well as on the job. Professional Profiles highlight the work of practicing engineers around the globe and further emphasize principles that you need to master to thrive as an engineer. WebAssign digital resources are also available to strengthen your understanding.

NEW EDITION

ENGINEERING FUNDAMENTALS, 7E

An Introduction to Engineering, SI Edition

Saeed Moaveni, Minnesota State University, Mankato

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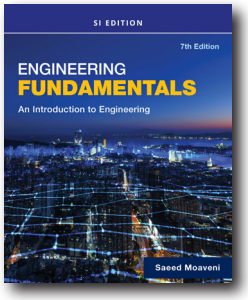

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MATLAB PROGRAMMING FOR ENGINEERS, 6E

Stephen J. Chapman, BAE Systems Australia

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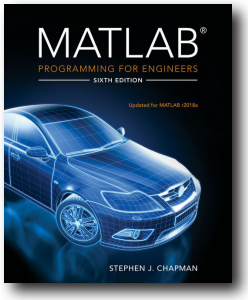

Master today's MATLAB® technical programming language while strengthening problem-solving skills with the help of Chapman's successful MATLAB® PROGRAMMING FOR ENGINEERS, 6th Edition. You learn how to write clean, efficient and well-documented programs as you simultaneously gain an understanding of the many practical functions of MATLAB®. You study the latest version of MATLAB® R2018a and work with new MATLAB® GUI (Graphical User Interface) Apps. The first nine chapters provide a basic introduction to programming and problem solving, while the remaining chapters address more advanced topics, such as I/O, object-oriented programming, and Graphical User Interfaces. With this comprehensive coverage, MATLAB® PROGRAMMING FOR ENGINEERS, 6th Edition serves as a trusted reference tool throughout your studies and into your professional career as you work with MATLAB®.

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ADVANCED ENGINEERING MATHEMATICS, 8E

Peter V. O'Neil, University of Alabama, Birmingham

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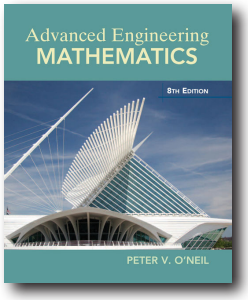

ADVANCED ENGINEERING MATHEMATICS, 8E is written specifically for students like you, who are primarily interested in how to effectively apply mathematical techniques to solve advanced engineering problems. Numerous examples include illustrations of mathematical techniques as well as applications. A "Math in Context" feature clearly demonstrates how the mathematical concepts and methods you are learning relate to current engineering problems. The book is organized into seven distinctive parts to provide precise focus on the individual mathematical ideas and methods. A student solutions manual offers detailed solutions to half of the problems in the book for your use in checking your progress as well as study and review.

ADVANCED ENGINEERING MATHEMATICS, SI EDITION, 8E

Peter V. O'Neil, University of Alabama, Birmingham

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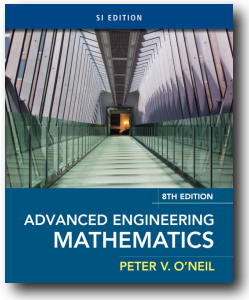

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ENGINEERING DESIGN PROCESS, 3E

Yousef Haik; Sangarappillai Sivaloganathan, United Arab Emirates University; Tamer M. Shahin

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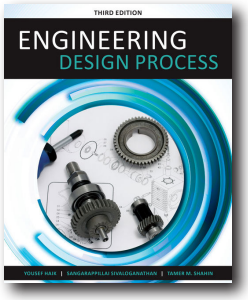

Gain a clear understanding of engineering design as ENGINEERING DESIGN PROCESS, 3E outlines the process into five basic stages -- requirements, product concept, solution concept, embodiment design and detailed design. Discover how these five stages can be seamlessly integrated. The book illustrates how the design methods can work together coherently, while the book's supporting exercises and labs help you navigate the design process. The text leads the beginner designer from the basics of design with very simple tasks -- the first lab involves designing a sandwich -- all the way through more complex design needs. This approach to the design model equips you with the skills to apply engineering design concepts both to conventional engineering problems as well as other design problems.

ENGINEERING DESIGN PROCESS, INTERNATIONAL EDITION, 3E

Yousef Haik; Sangarappillai Sivaloganathan, United Arab Emirates University; Tamer M. Shahin

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ESSENTIALS OF MATLAB® PROGRAMMING, 3E

Stephen J. Chapman, BAE Systems Australia

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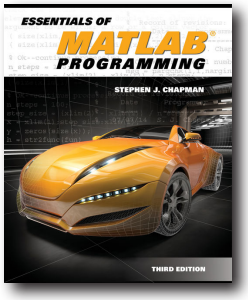

Now you can master the MATLAB language as you learn how to use it effectively to solve typical problems with ESSENTIALS OF MATLAB® PROGRAMMING, 3E. Author Stephen Chapman emphasizes problem-solving skills throughout this book as he teaches MATLAB as a technical programming language. This edition clearly shows you how to write clean, efficient and well-documented programs, while simultaneously introducing you to many of the practical functions of MATLAB. The first seven chapters offer an ideal introduction to programming and problem solving with MATLAB. The last two chapters address more advanced topics of additional data types and plot types, cell arrays, structures, and new MATLAB handle graphics to give you the skills you need.

ESSENTIALS OF MATLAB® PROGRAMMING, INTERNATIONAL EDITION, 3E

Stephen J. Chapman, BAE Systems Australia

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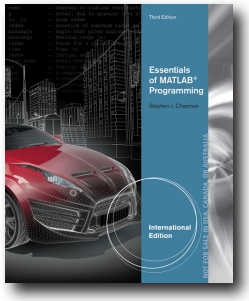

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ENGINEERING COMMUNICATION, 2E

A Practical Guide to Workplace Communications for Engineers

David Ingre; Robert Basil, Kwantlen Polytechnic University

© 2017, 320pp, Paperback, 9781305635104

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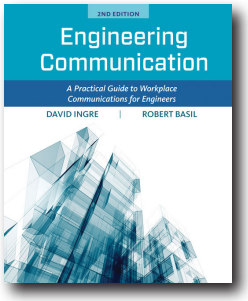

Master the communication skills and strategies most important in today's workplace with Ingre/Basil's ENGINEERING COMMUNICATION: A PRACTICAL GUIDE TO WORKPLACE COMMUNICATIONS FOR ENGINEERS, 2E. Ideal for future or practicing engineers, this practical guide is built around the successful dynamic analysis model CMAPP (context, message, audience, purpose and product). Meaningful insights and direction help you create proposals, reports, memos, letters, and job applications most appropriate for today's workplace. New coverage of digital and social media shows you how to maximize these online tools. Interrelated case studies and exercises help you strengthen the critical thinking and planning skills essential in engineering today. This edition also emphasizes important ethical and cultural considerations as you learn to develop the effective communication needed to be successful in your career.

HOLD PARAMOUNT, 3E

The Engineer's Responsibility to Society

P. Aarne Vesilind, Bucknell University; Alastair S. Gunn, University of Waikato

© 2016, 224pp, Hardback, 9781285869667

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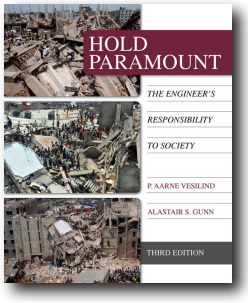

Prepare for the ethical dilemmas you'll encounter on the job with HOLD PARAMOUNT: THE ENGINEER'S RESPONSIBILITY TO SOCIETY, 3e. This practical and essential text, co-authored by an engineer and an ethicist, covers ethical dilemmas that any engineer might encounter on the job, emphasizing the responsibility of a practicing engineer to act in an ethical manner. As you proceed through the book, you'll see how the engineering code of ethics can help in decision making.

Cengage

PRODUCT DESIGN FOR ENGINEERS

Devdas Shetty, University of the District of Columbia

© 2016, 538pp, Hardback, 9781133962045

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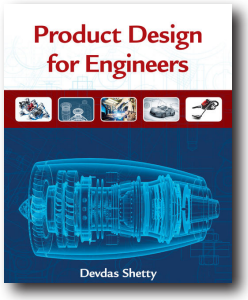

Develop key skills you'll need for your career in mechanical, industrial, aerospace, manufacturing, or automotive engineering with PRODUCT DESIGN FOR ENGINEERS. This empowering text explores techniques for managing innovation, entrepreneurship, and design and introduces you to the creative problem-solving method for product success. Case studies in every chapter explore issues of design for assembly, disassembly, reliability, maintainability, and sustainability. The book's interdisciplinary approach, step-by-step coverage, and helpful illustrations and charts give you everything you need to design cost-effective, innovative products.

CONSTRUCTION LAW FOR DESIGN PROFESSIONALS, CONSTRUCTION MANAGERS AND CONTRACTORS

Justin Sweet, University of California, Berkeley (Emeritus); Marc M. Schneier; Blake Wentz, Milwaukee School of Engineering

© 2015, 640pp, Paperback, 9780357671382

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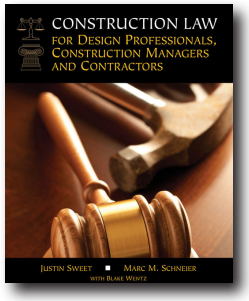

CONSTRUCTION LAW FOR DESIGN PROFESSIONALS, CONSTRUCTIONS MANAGERS AND CONTRACTORS is a condensed -- and completely revamped -- version of the bestselling authority on engineering law, LEGALASPECTS OF ARCHITECTURE, ENGINEERING AND THE CONSTRUCTION PROCESS (now in its 9th edition) by Justin Sweet, Marc M. Schneier and Blake Wentz. For this new book, the authors have directed the text at engineering, architecture and construction management students. Given the authors' long and deep understanding of the intersection between the law and the construction industry, professors and students can trust this text is unparalleled. The addition of Blake Wentz to the author team emphasizes the commitment to the field. A new 2017 Update includes the latest changes regarding relevant industry associations, regulations, and codes of ethics. The supplement includes hard copies of AIA A101-2017; A101-2017, Exhibit A; A201-2017; A401-2017; and B101-2017, as well as the most recent code of ethics of: the American Institute of Architects (AIA); the American Institute of Constructors (AIC); the Design-Build Institute of America (DBIA); and the Construction Management Association of America (CMAA). The book's website has the updated EJCDC C-520, C-700, and E-500 documents.

ENGINEERING COMMUNICATION

Charles W. Knisely, Bucknell University; Karin I. Knisely, Bucknell University

© 2015, 608pp, Paperback, 9781133114703

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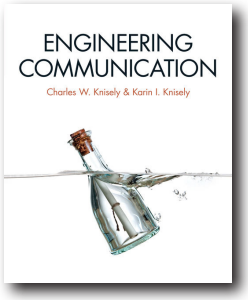

A practical how-to book, ENGINEERING COMMUNICATION is more than a guidebook for creating clear, accurate and engaging communication -- it is a complete teaching tool that includes the use of technology to produce dynamic written, oral, and visual communication. There are numerous complete examples, many taken directly from either student or business samples. It also asks you to critically examine the goals and methods of engineering communication. Written with step-by-step instruction on how to create both written and oral communication, the pedagogy includes end-of-chapter exercises to give you opportunity to use what you have learned, and for your instructor to assess your mastery.

ENGINEERING COMMUNICATION, INTERNATIONAL EDITION

Charles W. Knisely, Bucknell University; Karin I. Knisely, Bucknell University

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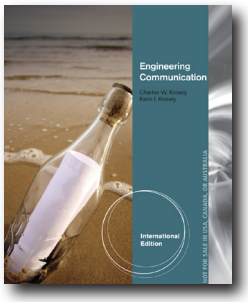

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Cengage

LEGAL ASPECTS OF ARCHITECTURE, ENGINEERING AND THE CONSTRUCTION PROCESS, 9E

Justin Sweet, University of California, Berkeley (Emeritus); Marc M. Schneier

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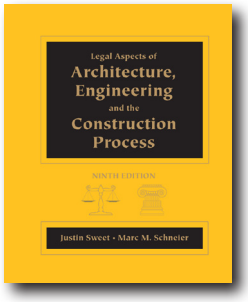

Bridging the gap between the academic world and the real world of engineering law.

MATLAB PROGRAMMING WITH APPLICATIONS FOR ENGINEERS

Stephen J. Chapman, BAE Systems Australia

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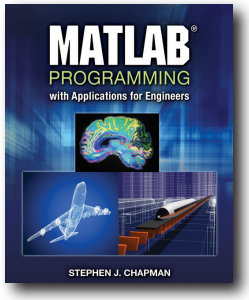

MATLAB PROGRAMMING WITH APPLICATIONS FOR ENGINEERS seeks to simultaneously teach MATLAB as a technical programming language while introducing the student to many of the practical functions that make solving problems in MATLAB so much easier than in other languages. The book provides a complete introduction to the fundamentals of good procedural programming. It aids students in developing good design habits that will serve them well in any other language that he or she may pick up later. Programming topics and examples are used as a jumping off point for exploring the rich set of highly optimized application functions that are built directly into MATLAB.

INDUSTRIAL ENGINEERING

INDUSTRIAL PLASTICS, 6E
Theory and Applications

Erik Lokensgard, Eastern Michigan University, Ypsilanti, MI

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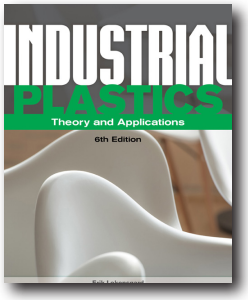

Now in its 6th edition, Industrial Plastics: Theory and Applications is back, with the extensive, detailed graphics and practical lab exercises that made previous editions so popular. In this latest edition, these trademark features accompany updated coverage of the plastics industry, offering the very latest information on state-of-the art equipment, with a special emphasis on processing techniques. Coverage includes plastics recycling, ISO and ASTM testing specifications, current health and safety standards, as well as examinations of current environmental issues like recycling, pollution, and incineration. With such broad coverage alongside hands-on activities to provide a clear link between theory and practice, Industrial Plastics continues to be an invaluable resource for students and professionals alike.

MATERIAL SCIENCE

THE SCIENCE AND ENGINEERING OF MATERIALS, ENHANCED EDITION, 7E

Donald R. Askeland; Wendelin J. Wright, Bucknell University

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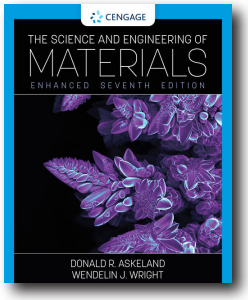

Develop a thorough understanding of the relationships between structure, processing and the properties of materials with Askeland/Wright's THE SCIENCE AND ENGINEERING OF MATERIALS, ENHANCED, 7th Edition. This updated, comprehensive edition serves as a useful professional reference tool both now and throughout future coursework in manufacturing, materials, design or materials selection. This science-based approach to materials engineering highlights how the structure of materials at various length scales gives rise to materials properties. You examine how the connection between structure and properties is key to innovating with materials, both in the synthesis of new materials as well as in new applications with existing materials. You also learn how time, loading and environment all impact materials -- a key concept that is often overlooked when using charts and databases to select materials. Trust this enhanced edition for insights into success in materials engineering today.

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THE SCIENCE AND ENGINEERING OF MATERIALS, ENHANCED, SI EDITION, 7E

Donald R. Askeland; Wendelin J. Wright, Bucknell University

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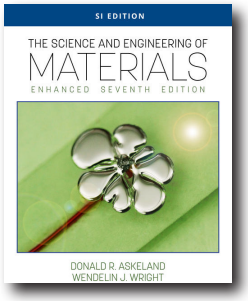

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ESSENTIALS OF MATERIALS SCIENCE AND ENGINEERING, 4E

Donald R. Askeland; Wendelin J. Wright, Bucknell University

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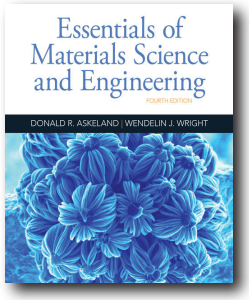

Discover why materials behave the way they do with ESSENTIALS OF MATERIALS SCIENCE AND ENGINEERING, 4TH Edition. This books focuses on materials engineering to explain how to process materials to suit your designs. Rather than simply memorizing facts or lumping materials into broad categories, you gain an understanding of the whys and hows behind materials science and engineering. This knowledge of materials science provides an important framework for understanding the principles used today to engineer materials. Detailed solutions and meaningful examples assist you in learning principles while significant end-of-chapter problems provide ample practice. MindTap digital resources help you learn on your terms with an interactive eBook and personalized learning tools.

ESSENTIALS OF MATERIALS SCIENCE AND ENGINEERING, SI EDITION, 4E

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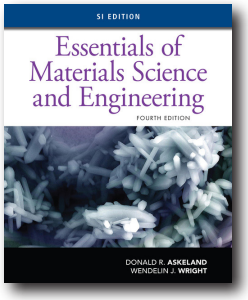

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CIVIL ENGINEERING MATERIALS

Nagaratnam Sivakugan, James Cook University, Queensland, Australia; C. T. Gnanendran, The University of New South Wales at the Australian Defence Force Academy; R. Tuladhar, James Cook University; M. Bobby Kannan, James Cook University

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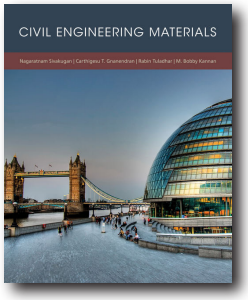

CIVIL ENGINEERING MATERIALS prepares you for today's engineering challenges, providing a broad overview of the materials you will use in your studies and career. You are not only introduced to traditional materials, such as concrete, steel, timber, and soils, but you also explore important non-traditional materials, such as synthetics and industrial-by products. The authors use a wealth of practical examples and straight-forward explanations to ensure you gain a full understanding of the characteristics and behavior of various materials, how they interact, and how to best utilize and combine traditional and non-traditional materials. While emphasizing the effective use of civil engineering materials, the authors carefully consider sustainability to give you a broader context of how materials are current used in contemporary applications.

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SCIENCE AND ENGINEERING OF MATERIALS, SI EDITION, 7E

Donald R. Askeland; Wendelin J. Wright, Bucknell University

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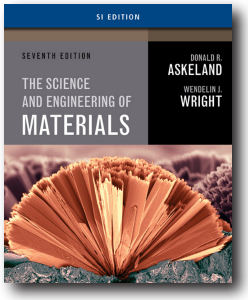

This updated Seventh Edition of THE SCIENCE AND ENGINEERING OF MATERIALS helps you to develop an understanding of the relationship between structure, processing, and properties of materials. Because the book has more material than is needed for a one-semester course, you will also have a useful reference for subsequent courses in manufacturing, materials, design, or materials selection. The Askeland text emphasizes a science-based approach to materials engineering that highlights how the structure of materials at various length scales gives rise to materials properties. This connection between structure and properties is key to innovating with materials, both in the synthesis of new materials and enabling new applications with existing materials. The science-based approach highlights how materials change with time and due to loading and environment - a key concept that is often overlooked when using charts and databases to select materials.

MATERIALS SCIENCE AND ENGINEERING PROPERTIES

Charles Gilmore, Emeritus Professor, George Washington University, Washington DC

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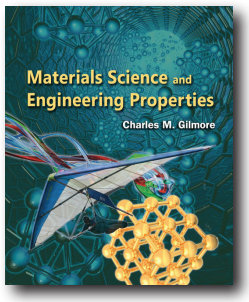

MATERIALS SCIENCE AND ENGINEERING PROPERTIES is primarily aimed at mechanical and aerospace engineering students, building on actual science fundamentals before building them into engineering applications. Even though the book focuses on mechanical properties of materials, it also includes a chapter on materials selection, making it extremely useful to civil engineers as well. The purpose of this textbook is to provide students with a materials science and engineering text that offers a sufficient scientific basis that engineering properties of materials can be understood by students. In addition to the introductory chapters on materials science, there are chapters on mechanical properties, how to make strong solids, mechanical properties of engineering materials, the effects of temperature and time on mechanical properties, electrochemical effects on materials including corrosion, electroprocessing, batteries, and fuel cells, fracture and fatigue, composite materials, material selection, and experimental methods in material science. In addition, there are appendices on the web site that contain the derivations of equations and advanced subjects related to the written textbook, and chapters on electrical, magnetic, and photonic properties of materials.

MATERIALS SCIENCE AND ENGINEERING PROPERTIES, SI EDITION

Charles Gilmore, Emeritus Professor, George Washington University, Washington DC

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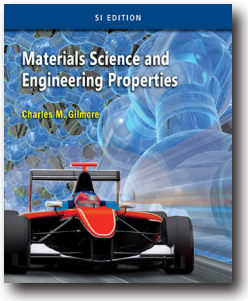

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PHYSICAL METALLURGY PRINCIPLES - SI VERSION, 4E

Reza Abbaschian, University of California - Riverside; Robert E. Reed-Hill

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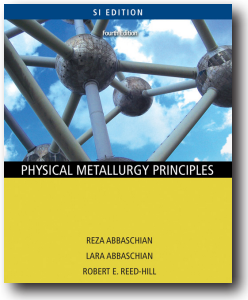

This comprehensive, student friendly text is intended for use in an introductory course in physical metallurgy and is designed for all engineering students at the junior or senior level. The approach is largely theoretical but all aspects of physical metallurgy and behavior of metals and alloys are covered. The treatment used in this textbook is in harmony with a more fundamental approach to engineering education. An extensive revision has been done to insure that the content remains the standard for metallurgy engineering courses worldwide.

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MECHANICAL AND AEROSPACE ENGINEERING

INDUSTRIAL ROBOTICS

Keith Dinwiddie, Ozarks Technical Community College

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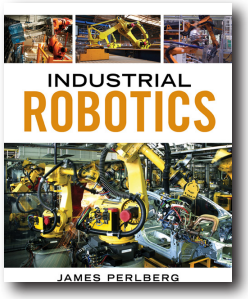

Offering current, comprehensive coverage, INDUSTRIAL ROBOTICS delivers a thorough introduction to the industry and a basic understanding of the subjects needed for starting a career in industrial robotics.

DESIGN OF FLUID THERMAL SYSTEMS, 4E

William S. Janna, The University of Memphis

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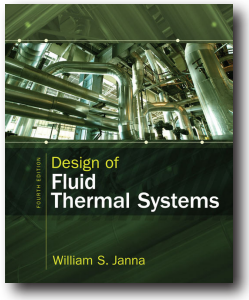

This book is designed to serve senior-level engineering students taking a capstone design course in fluid and thermal systems design. It is built from the ground up with the needs and interests of practicing engineers in mind; the emphasis is on practical applications. The book begins with a discussion of design methodology, including the process of bidding to obtain a project, and project management techniques. The text continues with an introductory overview of fluid thermal systems (a pump and pumping system, a household air conditioner, a baseboard heater, a water slide, and a vacuum cleaner are among the examples given), and a review of the properties of fluids and the equations of fluid mechanics. The text then offers an in-depth discussion of piping systems, including the economics of pipe size selection. Janna examines pumps (including net positive suction head considerations) and piping systems. He provides the reader with the ability to design an entire system for moving fluids that is efficient and cost-effective. Next, the book provides a review of basic heat transfer principles, and the analysis of heat exchangers, including double pipe, shell and tube, plate and frame cross flow heat exchangers. Design considerations for these exchangers are also discussed. The text concludes with a chapter of term projects that may be undertaken by teams of students.

DESIGN OF FLUID THERMAL SYSTEMS, SI EDITION, 4E

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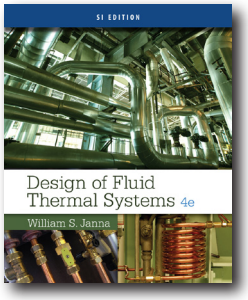

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NEW EDITION

A FIRST COURSE IN THE FINITE ELEMENT METHOD, 7E

Enhanced Edition

Daryl L. Logan, University of Wisconsin, Platteville

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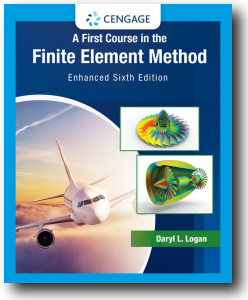

Gain a clear understanding of the basics of the finite element method (FEM) with this simple, direct, contemporary approach in Logan's A FIRST COURSE IN THE FINITE ELEMENT METHOD, ENHANCED 6th Edition. This unique presentation is written so you can easily comprehend content without the usual prerequisites, such as structural analysis. This book is ideal, whether you are a civil or mechanical engineering student primarily interested in stress analysis and heat transfer, or you need a foundation for applying FEM as a tool in solving practical physical problems. New and expanded real-world examples and problems demonstrate FEM applications in a variety of engineering and mathematical physics-related fields. Each chapter uses a consistent structure with step-by-step, worked-out examples, ideal for undergraduate or graduate-level study. A new WebAssign digital platform provides additional online resources to clarify concepts and assist you in completing assignments.

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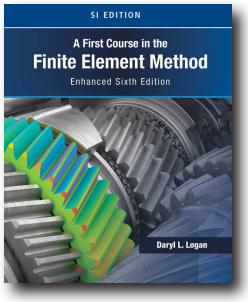

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PRINCIPLES OF ENGINEERING THERMODYNAMICS, 2E

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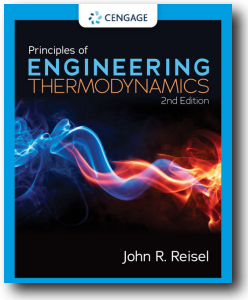

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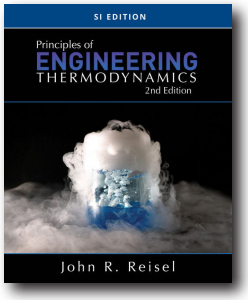

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AN INTRODUCTION TO MECHANICAL ENGINEERING, ENHANCED EDITION, 4E

Jonathan Wickert, Iowa State University; Kemper Lewis, University at Buffalo - SUNY

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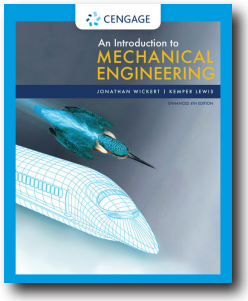

Discover today's fascinating, challenging, and constantly changing field of mechanical engineering with Wickert/Lewis' ENHANCED EDITION OF AN INTRODUCTION TO MECHANICAL ENGINEERING, 4th Edition. This engaging book helps you master technical problem-solving skills as you gain a balanced understanding of the latest design, engineering analysis, and advancements in engineering-related technology. The authors use their expertise to present engineering as a visual and graphical activity. Nearly 300 photographs and illustrations give you an exciting glimpse into what you will study in later courses and practice in your career. Meaningful content, interspersed with numerous real-world applications and interesting examples, helps you develop the solid foundation in mechanical engineering that you need for future success.

AN INTRODUCTION TO MECHANICAL ENGINEERING, ENHANCED, SI EDITION, 4E

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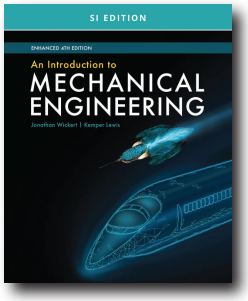

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MECHANICS OF MATERIALS, ENHANCED EDITION, 9E

Barry J. Goodno, Georgia Institute of Technology; James M. Gere

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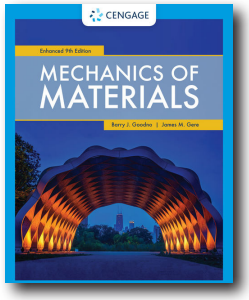

Develop a thorough understanding of the mechanics of materials – an area essential for success in mechanical, civil and structural engineering -- with the analytical approach and problem-solving emphasis found in Goodno/Gere's leading MECHANICS OF MATERIALS, ENHANCED, 9th Edition. This book focuses on the analysis and design of structural members subjected to tension, compression, torsion and bending. This ENHANCED EDITION guides you through a proven four-step problem-solving approach for systematically analyzing, dissecting and solving structure design problems and evaluating solutions. Memorable examples, helpful photographs and detailed diagrams and explanations demonstrate reactive and internal forces as well as resulting deformations. You gain the important foundation you need to pursue further study as you practice your skills and prepare for the FE exam.

MECHANICS OF MATERIALS, ENHANCED, SI EDITION, 9E

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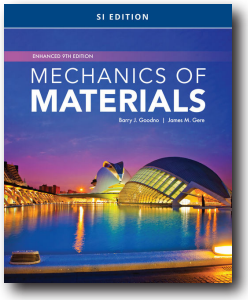

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FINITE ELEMENT ANALYSIS WITH SOLIDWORKS SIMULATION

Robert H. King, Colorado School of Mines (Emeritus)

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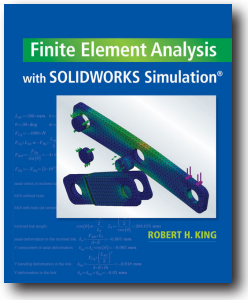

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STATICS AND MECHANICS OF MATERIALS

Barry J. Goodno, Georgia Institute of Technology; James Gere, Professor Emeritus of Civil Engineering, Stanford University, California

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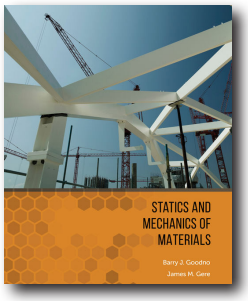

Master two essential subjects in engineering mechanics--statics and mechanics of materials--with the rigorous, complete, and integrated treatment found in STATICS AND MECHANICS OF MATERIALS. This practical text helps you establish a strong foundation for further study in mechanics that is essential whether you continue in mechanical, structural, civil, biomedical, petroleum, nuclear, aeronautical, or aerospace engineering. The authors present numerous practical problems based on real structures, using state-of-the-art graphics, photograph, and detailed drawings of freebody diagrams. All example problems and end-of-chapter problems follow a comprehensive, organized, and systematic Four-Step Problem-Solving Approach to help you strengthen important problem-solving skills and gain new insight into methods for dissecting and solving problems. This free website also contains nearly 200 FE-type review problems to help prepare you for success on the FE Exams.

STATICS AND MECHANICS OF MATERIALS, SI EDITION

Barry J. Goodno, Georgia Institute of Technology; James Gere, Professor Emeritus of Civil Engineering, Stanford University, California

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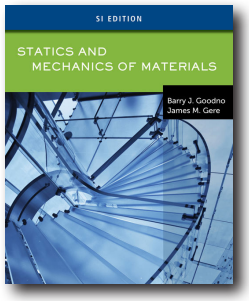

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A FIRST COURSE IN THE FINITE ELEMENT METHOD, SI EDITION, 6E

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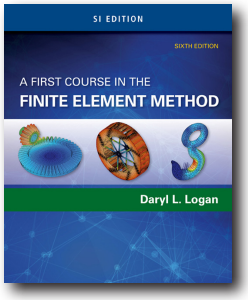

Discover a simple, direct approach that highlights the basics you need within A FIRST COURSE IN THE FINITE ELEMENT METHOD, 6E. This unique book is written so both undergraduate and graduate students can easily comprehend the content without the usual prerequisites, such as structural analysis. The book is written primarily as a basic learning tool for students, like you, in civil and mechanical engineering who are primarily interested in stress analysis and heat transfer. The text offers ideal preparation for utilizing the finite element method as a tool to solve practical physical problems.

ENGINEERING MECHANICS, 4E

Statics

Andrew Pytel, The Pennsylvania State University; Jaan Kiusalaas, The Pennsylvania State University

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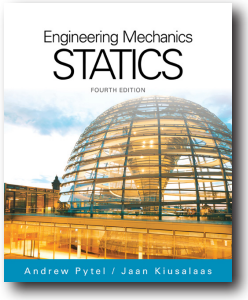

ENGINEERING MECHANICS: STATICS, 4E, written by authors Andrew Pytel and Jaan Kiusalaas, provides you with a solid understanding of statics without the overload of extraneous detail. The authors use their extensive teaching experience and first-hand knowledge to deliver a presentation that's ideally suited to your learning skills. This edition clearly introduces critical concepts using learning features that connect real problems and examples with the fundamentals of engineering mechanics. You learn how to effectively analyze problems before substituting numbers into formulas -– a skill that will benefit you tremendously as you encounter real life problems that do not always fit into standard formulas. This book's concise presentation is complemented by a useful Student Study Guide that clarifies concepts and includes guided solutions to a number of additional equilibrium problems.

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ENGINEERING MECHANICS, 4E
Statics, SI Edition

Andrew Pytel, The Pennsylvania State University; Jaan Kiusalaas, The Pennsylvania State University

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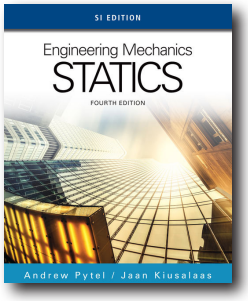

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ENGINEERING MECHANICS, 4E
Dynamics

Andrew Pytel, The Pennsylvania State University; Jaan Kiusalaas, The Pennsylvania State University

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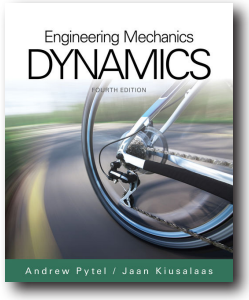

Gain a solid understanding of Newtonian dynamics and its application to real-world problems with Pytel/ Kiusalaas' ENGINEERING MECHANICS: DYNAMICS, 4E. The text focuses on both fundamental principles and important problem-solving techniques. The authors clearly introduce critical concepts using learning features that connect real problems and examples with the fundamentals of engineering mechanics. You learn how to effectively analyze problems before substituting numbers into formulas -- a skill that benefits you tremendously as you encounter real life problems that do not always fit into standard formulas. This book's concise presentation is complemented by a useful Student Study Guide that clarifies concepts and includes guided solutions to a number of additional equilibrium problems.

MECHANICS OF FLUIDS, 5E

Merle C. Potter, Professor Emeritus, Michigan State University; David C. Wiggert, Michigan State University; Bassem H. Ramadan, Kettering University

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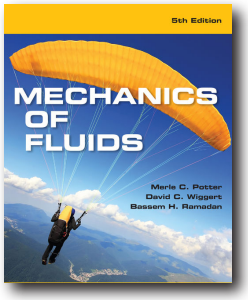

Gain an understanding of fluid mechanics and the ability to analyze this important phenomena encountered by practicing engineers with MECHANICS OF FLUIDS, 5E. The authors use proven learning tools to help you visualize many difficult-to-understand aspects of fluid mechanics. The mathematics used in derivations are readily accessible to you as an undergraduate engineering student. This edition's accompanying Multimedia Fluid Mechanics DVD-ROM helps you gain insights and develop intuition about fluid flow as you view mathematical relationships through movies and conduct actual simulations. The book's companion website includes mini-exams and solutions as well as video tutorials to assist you in further mastering fluid mechanics as an emerging professional.

MECHANICS OF FLUIDS, SI EDITION, 5E

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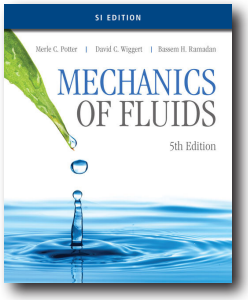

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HEAT AND MASS TRANSFER, 2E

Kurt Rolle, PhD, P.E., University of Wisconsin, Platteville

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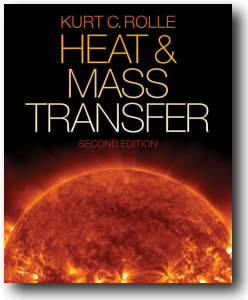

Succeed in your course with the practical, up-to-date coverage of HEAT AND MASS TRANSFER, 2e. Packed with real-world examples that apply concepts to engineering practice, this comprehensive, yet concise, book provides a solid introduction to the scientific, mathematical, and empirical methods for treating heat and mass transfer phenomena, along with the tools you need to assess and solve a variety of contemporary engineering problems. Practical guidance throughout helps you learn to anticipate the reasonable answers for a particular system or process and understand that there is often more than one way to solve a particular problem.

HEAT AND MASS TRANSFER, SI EDITION, 2E

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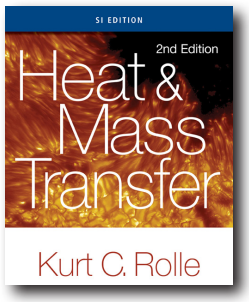

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PRINCIPLES OF ENGINEERING THERMODYNAMICS, SI EDITION

John R. Reisel, University of Wisconsin, Milwaukee

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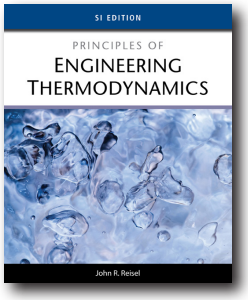

Succeed in your course and prepare for engineering practice with PRINCIPLES OF ENGINEERING THERMODYNAMICS. Written in an informal, first-person writing style that makes abstract concepts easier to understand, the book asks you to explore how changes in a particular parameter can change a device's or process' performance. This approach helps you develop a better understanding of how to apply thermodynamics in your future career and a stronger intuitive feel for how the different components of thermodynamics are interrelated. Throughout the book, you are encouraged to develop computer-based models of devices, processes, and cycles and to take advantage of the speed of Internet-based programs and computer apps to find thermodynamic data, just as practicing engineers do.

MECHANISMS AND MACHINES

Kinematics, Dynamics, and Synthesis, SI Edition

Michael M. Stanisic, University of Notre Dame

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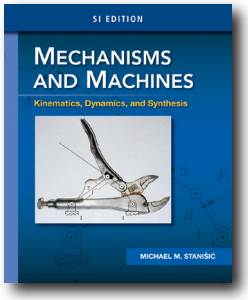

MECHANISMS AND MACHINES: KINEMATICS, DYNAMICS, AND SYNTHESIS has been designed to serve as a core textbook for the mechanisms and machines course, targeting junior level mechanical engineering students. The book is written with the aim of providing a complete, yet concise, text that can be covered in a single-semester course. The primary goal of the text is to introduce students to the synthesis and analysis of planar mechanisms and machines, using a method well suited to computer programming, known as the Vector Loop Method. Author Michael Stanisic's approach of teaching synthesis first, and then going into analysis, will enable students to actually grasp the mathematics behind mechanism design. The book uses the vector loop method and kinematic coefficients throughout the text, and exhibits a seamless continuity in presentation that is a rare find in engineering texts. The multitude of examples in the book cover a large variety of problems and delineate an excellent problem solving methodology.

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MECHANISMS AND MACHINES

Kinematics, Dynamics, and Synthesis

Michael M. Stanisic, University of Notre Dame

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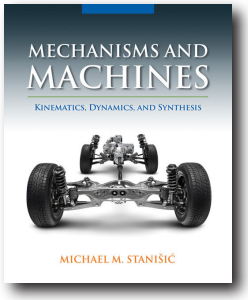

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THERMODYNAMICS FOR ENGINEERS

Kenneth A. Kroos, Villanova University; Merle C. Potter, Professor Emeritus, Michigan State University

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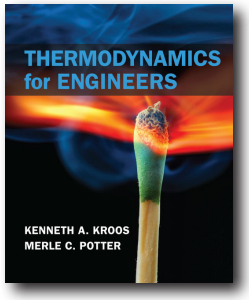

THERMODYNAMICS FOR ENGINEERS focuses on outcome-based learning, which has been identified by ABET as an essential aspect of engineering curricula. Learning outcomes are listed at the start of each chapter and identified as completed at relevant places in the text, followed by a summary at the end of each chapter. Authors Kenneth Kroos and Merle Potter bring decades of teaching experience to a clear writing style that describes key concepts without straying from the course. The language of thermodynamics is explained in careful detail so that students can quickly understand the concepts presented and the analysis techniques used. Extensive use of practical examples demonstrates the proper set-up and solution of problems. These skills are then further developed using a wide variety of homework problems. Some homework problems are presented with an increased degree of complexity to allow the instructor to challenge the more accomplished. THERMODYNAMICS FOR ENGINEERS focuses on clearly outlining the role of thermodynamics in "real" engineering. It takes students through clear explanations of concepts, followed by mathematical techniques of analysis and applications of these in solving engineering problems.

THERMODYNAMICS FOR ENGINEERS, SI EDITION

Kenneth A. Kroos, Villanova University; Merle C. Potter, Professor Emeritus, Michigan State University

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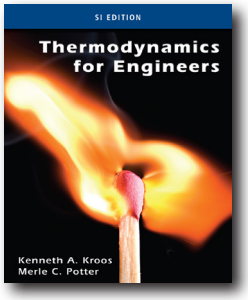

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FUNDAMENTALS OF MECHATRONICS

Musa Jouaneh, University of Rhode Island

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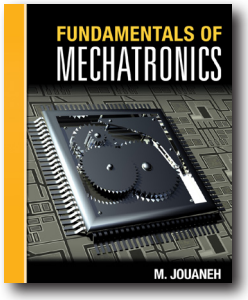

The objective of FUNDAMENTALS OF MECHATRONICS is to cover both hardware and software aspects of mechatronics systems in a single text, giving a complete treatment to the subject matter. The text focuses on application considerations and relevant practical issues that arise in the selection and design of mechatronics components and systems. The text uses several programming languages to illustrate the key topics. Different programming platforms are presented to give instructors the choice to select the programming language most suited to their course objectives. A separate laboratory book, with additional exercises is provided to give guided hands-on experience with many of the topics covered in the text.

FUNDAMENTALS OF MECHATRONICS, SI EDITION

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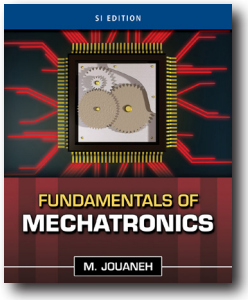

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LABORATORY EXERCISES IN MECHATRONICS

Musa Jouaneh, University of Rhode Island

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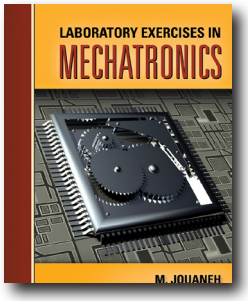

This book contains mechatronics laboratory exercises designed to give the student hands-on experience with applications of the concepts covered in a mechatronics course. 14 laboratory exercises are included plus a section that has a list of suggested extended or final projects. The first six laboratory exercises are designed to illustrate basic measurements, electrical circuits and electronic concepts. Later exercises focus on microcontrollers, timing and state-transition diagrams, sensors, stepper motors, and feedback control.

SYSTEM DYNAMICS AND RESPONSE - SI VERSION

S. Graham Kelly, University of Akron

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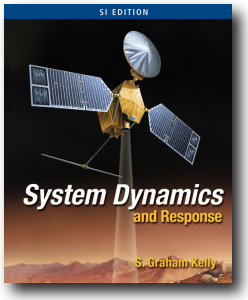

As engineering systems become more increasingly interdisciplinary, knowledge of both mechanical and electrical systems has become an asset within the field of engineering. All engineers should have general facility with modeling of dynamic systems and determining their response and it is the objective of this book to provide a framework for that understanding. The study material is presented in four distinct parts; the mathematical modeling of dynamic systems, the mathematical solution of the differential equations and integro differential equations obtained during the modeling process, the response of dynamic systems, and an introduction to feedback control systems and their analysis. An Appendix is provided with a short introduction to MATLAB as it is frequently used within the text as a computational tool, a programming tool, and a graphical tool. SIMULINK, a MATLAB based simulation and modeling tool, is discussed in chapters where the development of models use either the transfer function approach or the state-space method.

INDUSTRIAL TECHNOLOGY

MECHANICAL TECHNOLOGY

INDUSTRIAL PLASTICS, 6E

Theory and Applications

Erik Lokensgard, Eastern Michigan University, Ypsilanti, MI

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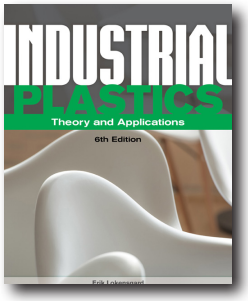

Now in its 6th edition, Industrial Plastics: Theory and Applications is back, with the extensive, detailed graphics and practical lab exercises that made previous editions so popular. In this latest edition, these trademark features accompany updated coverage of the plastics industry, offering the very latest information on state-of-the art equipment, with a special emphasis on processing techniques. Coverage includes plastics recycling, ISO and ASTM testing specifications, current health and safety standards, as well as examinations of current environmental issues like recycling, pollution, and incineration. With such broad coverage alongside hands-on activities to provide a clear link between theory and practice, Industrial Plastics continues to be an invaluable resource for students and professionals alike.

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