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Pearson is the world's learning company, with presence across 70 countries worldwide. Our unique insights and world-class expertise comes from a long history of working closely with renowned teachers, authors and thought leaders, as a result of which, we have emerged as the preferred choice for millions of teachers and learners across the world.

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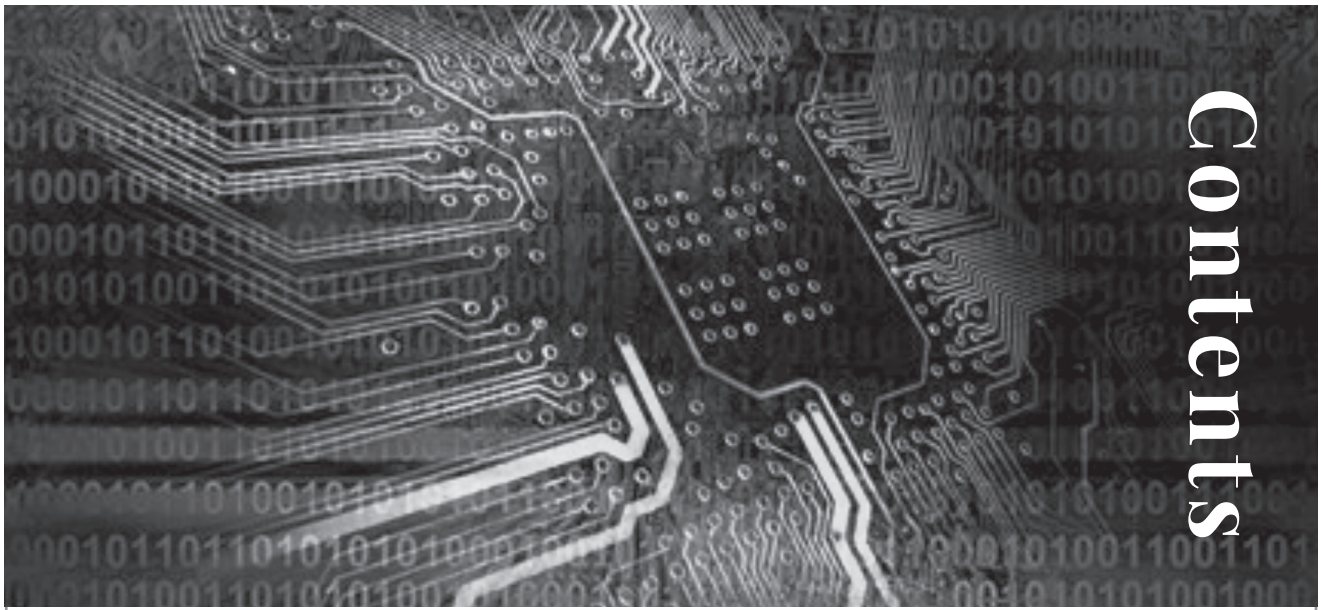


MECHANICAL ENGINEERING

CIVIL ENGINEERING

CHEMICAL ENGINEERING

AERONAUTICAL ENGINEERING

Mechanical Engineering

Best Seller

ISBN: 9789386873293

Basic Mechanical Engineering, 2/e

Pravin Kumar

784 | © 2018

Web Supplements

ABOUT THE BOOK

Basic Mechanical Engineering continues to fill the need for a textbook that provides the complete overview of several aspects of mechanical engineering—thermal engineering, mechanical design and manufacturing engineering. With lucid exposition of the fundamental concepts along with numerous worked-out examples and well-labeled detailed illustrations, this book provides a holistic understanding of the subject.

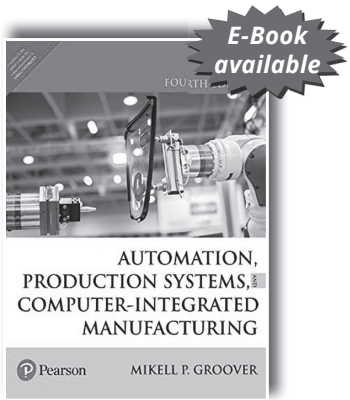
FEATURES

- Coverage of important topics such as power plant engineering, non-conventional energy resources, sheet metal work and NC, CNC and DNC machines
- Chapters on Fuels and Combustion and Internal Combustion Engines updated to include recent advancements
- Points to remember and list of important formulae at the end of each chapter for quick recapitulation
- More than 1100 end-of-chapter exercises including multiplechoice questions, theory questions and exercise problems for efficient self-assessment

CONTENTS

ABOUT THE AUTHOR

Pravin Kumar obtained his Ph.D. from IIT Delhi and M.Tech. from Institute of Technology (BHU), Varanasi. Presently, he is working as a faculty in the Department of Mechanical Engineering, Delhi Technological University (Formerly Delhi College of Engineering). He has more than 16 years of teaching and research experience. He has been teaching Basic Mechanical Engineering for several years. He has also authored two more books—Industrial Engineering and Management, published by Pearson Education, and Fundamentals of Engineering Economics, published by Wiley India Pvt. Ltd. He has published more than 50 research papers in the National and International Journals and Conferences.



ISBN: 9789332572492

Automation, Production Systems, and Computer-Integrated Manufacturing, 4/e

Best Seller

Mikell P. Groover

816 | © 2016

Web Supplements

ABOUT THE BOOK

Automation, Production Systems, and Computer-Integrated Manufacturing provides the most advanced, comprehensive, and balanced coverage of the subject of any text on the market. It covers all the major cutting-edge technologies of production automation and material handling, and how these technologies are used to construct modern manufacturing systems. It is appropriate for advanced undergraduate/graduate-level courses in Automation, Production Systems, and Computer-Integrated Manufacturing.

FEATURES

- A quantitative approach provides numerous equations and example problems for instructors who want to include analytical and quantitative material in their courses.
- "What the Equations Tell Us" statements follow the mathematical derivations and engineering equations.
- These statements list the practical meanings of the equations and guidelines regarding applications.

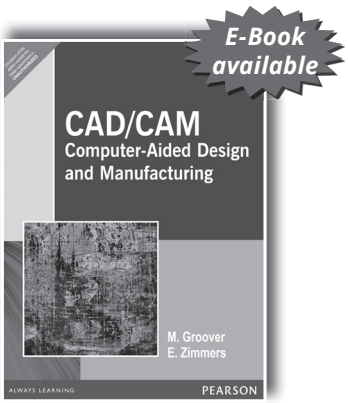
NEW TO THIS EDITION:

- Two new robot configurations have been added in Chapter 8.
- A section on programmable automation controllers has been included in Chapter 9.
- The section on AGVS technologies has been updated in Chapter 10.
- The organization of the text has been substantially revised in Chapter 18 with a new section on performance metrics in cell operations.

CONTENTS

ABOUT THE AUTHOR

Mikell P. Groover is Professor Emeritus of Industrial and Systems Engineering at Lehigh University, where he taught and did research for 44 years. He received his B.A. in Arts and Science (1961), B.S. in Mechanical Engineering (1962), M.S. in Industrial Engineering (1966), and Ph.D. (1969), all from Lehigh. His industrial experience includes several years as a manufacturing engineer before embarking on graduate studies at Lehigh.



ISBN: 9788177584165

CAD/CAM: Computer-Aided Design and Manufacturing

M. Groover | E. Zimmers

512 | © 2003

ABOUT THE BOOK

This is a comprehensive survey of the technical topics relating to CAD/CAM including interactive computer graphics, numerical control, computer process control, robotics, group technology, computer integrated production management, and flexible manufacturing systems.This successful book has been designed as a textbook for college course and industry continuing education course in CAD/CAM, as well as for engineers, computer specialists and others who wish to learn about the technology and applications of CAD/CAM.

CONTENTS

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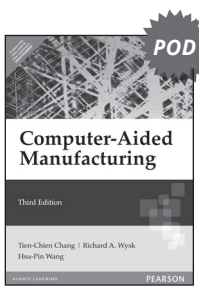
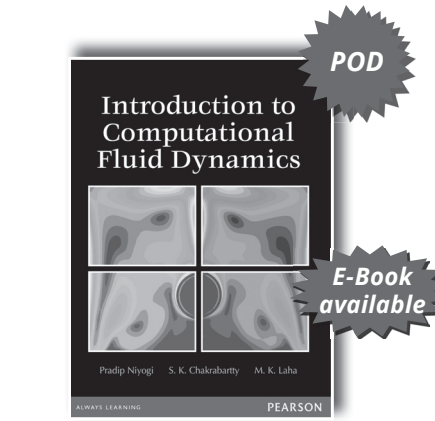


Computer-Aided Manufacturing, 3/e

Tien-Chien Chang / Richard A. Wysk / Hsu-Pin Wang

ISBN: 9788131721643
Pages: 684



ISBN: 9788177587647

Introduction to Computational Fluid Dynamics

Pradip Niyogi | S. K. Chakrabartty | M.K. Laha

600 | © 2006

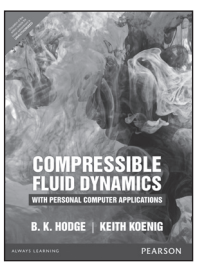
ABOUT THE BOOK

Introduction to Computational Fluid Dynamics is a self-contained introduction to a new subject, arising through the amalgamation of classical fluid dynamics and numerical analysis supported by powerful computers. Written in the style of a text book for advanced level B.Tech, M.Tech and M.Sc. students of various science and engineering disciplines. It introduces the reader to finite-difference and finite-volume methods for studying and analyzing linear and non-linear problems of fluid flow governed by inviscid incompressible and compressible Euler equations as also incompressible and compressible viscous flows governed by boundary-layer and Navier-Stokes equations. Simple turbulence modeling have been presented.

FEATURES

- It is a first course written with the specific background of Indian students in mind, that prepares the student with necessary prerequisites and mathematical foundation.
- It covers the basic concepts of the more important and useful finite-difference and finite-volume methods needed in the application areas of CFD.
- Illustrative computer programs have been provided.
- Illustrative Case Studies have been provided.

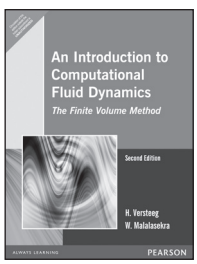
➦ ALSO AVAILABLE...



Compressible Fluid Dynamics

B.K. Hodge / Keith Koenig

ISBN: 9789332559455
Pages: 648

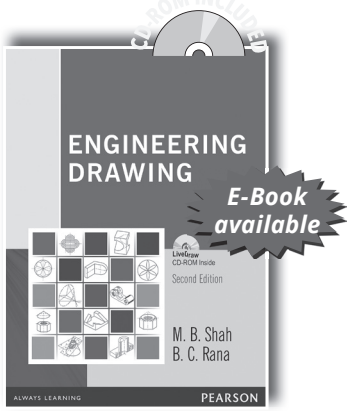


An Introduction to Computational Fluid Dynamics: The Finite Volume Method, 2/e

H. Versteeg / W. Malalasekra

ISBN: 9788131720486
Pages: 518

Web Supplements



ISBN: 9788131710562

Engineering Drawing, 2/e

M. B. Shah | B. C. Rana

580 | © 2009

Web Supplements

ABOUT THE BOOK

Engineering Drawing, 2e continues to cover all the fundamental topics of the field, while maintaining its unique focus on the logic behind each concept and method. Based on extensive market research and reviews of the first edition, this edition includes a new chapter on scales, the latest version of AutoCAD, and new pedagogy.

FEATURES

- Learning goals through Objectives.
- Overview of the chapter through Introduction.
- Recap of concepts through solved examples.
- Comes with Live Draw CD.

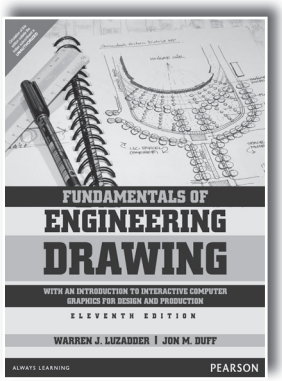
CONTENTS

ABOUT THE AUTHOR(S)

M. B. Shah is a professor of mechanical engineering and the principal of Shah and Anchor Kutchhi Engineering College, Mumbai.

B. C. Rana was an assistant professor at Veermata Jijabai Technological Institute.

Fundamentals of Engineering Drawing , 11/e



Warren J. Luzadder | Jon M. Duff

704 | © 2015

ISBN: 9789332549982

ABOUT THE BOOK

This volume presents a solid fundamental treatment of engineering graphics, geometry, and modeling suitable for engineers and technologists. It reflects the most modern drafting procedures—from the fundamentals (for the beginner), to techniques and practices of drawing in specialized fields. This revision enhances understanding of graphics fundamentals in the era of computer-aided design to better prepare students to use CADD software effectively.

FEATURES

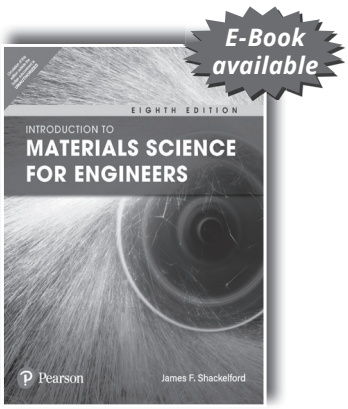
- The Eleventh Edition elaborates on integration of computer graphics through six additional chapters of basic fundamentals; provides two sets of problems to test and reinforce readers' understanding of material; stresses the ability to manipulate three-dimensional geometry— whether on the surface of a drawing or as a solid computer model; and highlights popular CADD products and integrates CADD into each chapter as it naturally occurs.
- The authors cover all topics basic to the preparation of working drawings for both products and systems—e.g., multiview drawing and freehand sketching, spatial geometry, and design and dimensioning practices; and make extensive use of step-by-step illustrations.

CONTENTS

ABOUT THE AUTHOR(S)

Warren J. Luzadder, Purdue University

Jon M. Duff, Purdue University



ISBN: 9789353941390

Introduction to Materials Science for Engineers, 8e

James F. Shackelford

684 | © 2020

ABOUT THE BOOK

Introduction to Materials Science for Engineers provides balanced, current treatment of the full spectrum of engineering materials, covering all the physical properties, applications and relevant properties associated with engineering materials. It explores all of the major categories of materials while also offering detailed examinations of a wide range of new materials with high-tech applications.

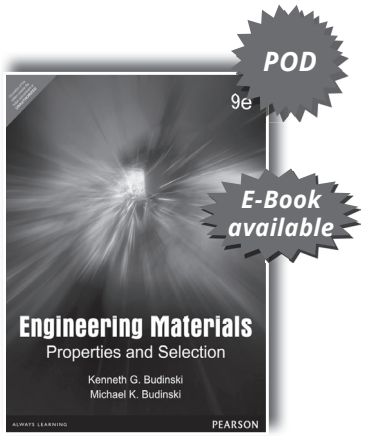
FEATURES

- Coverage of the Most Important Advances in Engineering Materials
- UPDATED: Updated discussions of the expanding importance of materials in nanotechnology are presented throughout the text.
- NEW: Examples of the role of materials in flat screen and flat panel technology are included throughout the text.
- NEW: Graphene is now included in the discussion of advances in carbon materials
- NEW: Coverage of the rapidly emerging field of additive manufacturing(by 3D printing) is included
- NEW: A new candid discussion of the increasing role of biological materials in materials science and how that expands the definition of this field
- UPDATED: Expanded coverage of ferroelectrics and piezoelectrics is included
- NEW: Coverage of optical and magnetic materials is presented
- UPDATED: Expanded coverage of corrosion is included
- An abundance of examples, practice problems, and end-of-chapter homework problems provide ample opportunity to reinforce concepts learned in each chapter

CONTENTS

ABOUT THE AUTHOR

James F. Shackelford University of California, Davis



ISBN: 9789332574045

Engineering Materials : Properties and Selection, 9/e

Kenneth G. Budinski | Michael K. Budinski

784 | © 2016

ABOUT THE BOOK

This introductory text covers theory and industry-standard ion practices, providing students with the working knowledge to make an informed ion of materials for engineering applications and to correctly specify materials on drawings and purchasing documents. Encompassing all significant material systems—metals, ceramics, plastics, and composites—this text incorporates the most up-to-date information

FEATURES

- Features the latest cost and usage data to reflect current worldwide conditions, materials, engineering theories, and practices.
- Recommends a repertoire of materials that meet most design needs.
- Includes critical concepts sections that outline the key concepts of each chapter and give students an opportunity to assess their understanding.
- Unique selection information, developed by the authors, offers students a fresh approach to traditional topics and provides the most timely, complete and accurate coverage of the most recent developments.
- Focuses on the properties of industry-standard materials, teaching students how to specify these materials on engineering drawings and documents.

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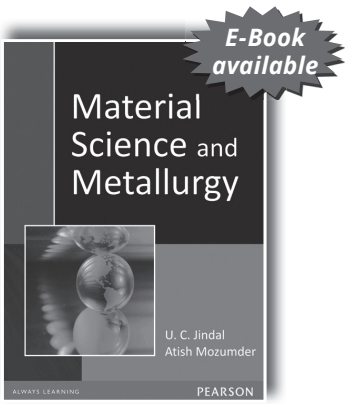
ABOUT THE AUTHOR(S)

Kenneth G. Budinski, Bud Labs
Michael K. Budinski, General Motors Corporation



ISBN: 9788131759110

Material Science and Metallurgy

U C Jindal | Atish Mozumder

552 | © 2011

ABOUT THE BOOK

The book is presented in 20 chapters. The language used is user friendly and diagrams are giving the clear view and concept. Solved problems, multiple choice questions and review questions are also integral part of the book.

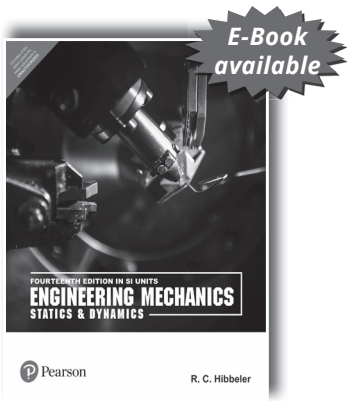
FEATURES

- A separate chapter highlighting various concepts and applications related to thermal properties and wear of materials.
- Exclusive coverage of different types of processes incorporated during heat treatment of steels.

CONTENTS

ABOUT THE AUTHOR(S)

Dr. U. C. Jindal is former Professor and Head of the Department of Mechanical Engineering, Delhi College of Engineering. For the last 45 years Dr Jindal has been involved in teaching, research and development activities in the mechanics group of subjects – engineering mechanics, strength of materials, machine design, theory of machines and materials science.



ISBN: 9789332584747

Engineering Mechanics: Statics & Dyanamics, 14/e (SI Edition)

Best Seller

R. C. Hibbeler

1330 | © 2017

Web Supplements

ABOUT THE BOOK

Engineering Mechanics: Statics & Dynamics excels in providing a clear and thorough presentation of the theory and application of engineering mechanics. Engineering Mechanics empowers students to succeed by drawing upon Prof. Hibbeler's everyday classroom experience and his knowledge of how students learn. This text is shaped by the comments and suggestions of hundreds of reviewers in the teaching profession, as well as many of the author's students.

FEATURES

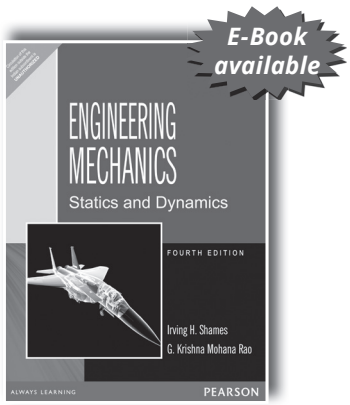
- NEW! Preliminary Problems are designed to test students' conceptual understanding of the theory and are placed throughout the text before the Fundamentals Problems. Preliminary Problems solutions require little or no calculation and are intended to help students develop a basic understanding of the concepts before they are applied numerically.
- Each chapter is organized into well-defined sections that contain an explanation of specific topics, illustrative example problems, and at the end of the chapter, a set of relevant homework problems.
- Fundamental Problems, selectively located after the example problems, offer students simple applications of the concepts and therefore provide them with the chance to develop their problem-solving skills before attempting to solve any of the standard problems that follow.
- Photos placed throughout the text show how the principles of fluid mechanics apply to real-world situations.

CONTENTS

ABOUT THE AUTHOR

R C Hibbeler currently teaches both civil and mechanical engineering courses at the University of Louisiana, Lafayette. In the past he has taught at the University of Illinois at Urbana, Youngstown State University, Illinois Institute of Technology, and Union College.

Best Seller



ISBN: 9788177581232

Engineering Mechanics – Statics and Dynamics

Irving H. Shames | G. Krishna Mohana Rao

864 | © 2005

ABOUT THE BOOK

This book is designed to provide a mature, in-depth treatment of engineering mechanics at the undergraduate level and to offer continuity with, and a smooth transition to, upper-level courses. This text focuses on developing a solid understanding of basic principles rather than rote learning of specific methodologies.

FEATURES

- Offers an approach that improves continuity and provides a smooth transition to upper-level courses in other engineering sciences.
- Provides in-depth coverage of Screw Jack and Compound Pendulum.

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ABOUT THE AUTHOR

Irving H. Shames, George Washington University

➦ ALSO AVAILABLE...

Engineering Mechanics

D P Sharma

ISBN: 9788131732229
Pages: 624

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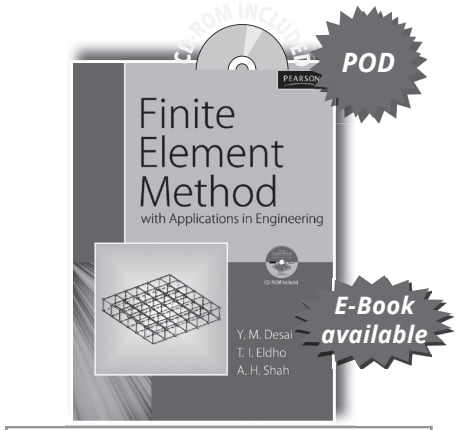
EXPERIMENTAL STRESS ANALYSIS AVAILABLE TITLE

Experimental Stress Analysis

U C Jindal

ISBN: 9788131759103
Pages: 422

Web Supplements



ISBN: 9788131724644

Finite Element Method with Applications in Engineering

Y. M. Desai | T. I. Eldho | A. H. Shah

492 | © 2011

ABOUT THE BOOK

This book presents a practical understanding of the finite element method with a variety of engineering applications that will aid students, teachers, practicing engineers and researchers. It begins with an introduction to the mathematical modeling of engineering problems and approximate methods of analysis. It then introduces the different approaches in FEM such as direct approach, principle of virtual work, variational principle and method of weighted residual.

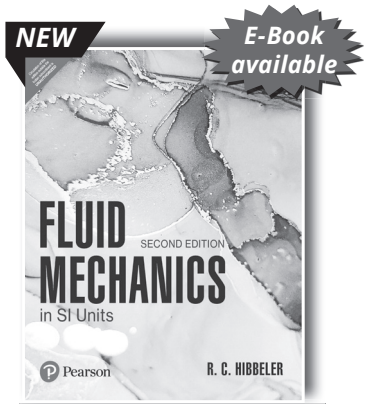
FEATURES

- Separate chapters are devoted to basic mathematical modeling, approximate method of analysis, introduction and different approaches to FEM.
- Comprehensive coverage of FEM interpolation functions.
- Finite element analysis for various problems in 1D, 2D and 3D.

CONTENTS

ABOUT THE AUTHOR(S)

Y. M. Desai and **T. I. Eldho** are professors in department of civil engineering at Indian Institute of Technology Bombay and **A. H. Shah** is a professor in Department of Civil Engineering at the University of Manitoba, CANADA.



ISBN: 9789354494949

Fluid Mechanics, 2e in SI Units

R C Hibbeler

916 | © 2022

ABOUT THE BOOK

Fluid Mechanics is intended to provide a comprehensive guide to a full understanding of the theory and many applications of fluid mechanics. The text features many of the hallmark pedagogical aids unique to Hibbeler texts, including its student-friendly clear organization. The text supports the development of student problem-solving skills through a large variety of problems, representing a broad range of engineering disciplines that stress practical, realistic situations encountered in professional practice, and provide varying levels of difficulty.

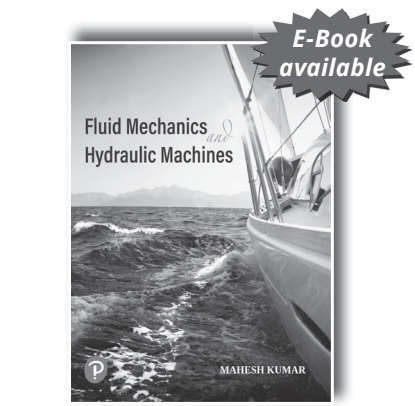
FEATURES

- The organization and approach of the text presents a structured method for introducing each new definition or concept, and to make the book a convenient resource for later reference and review.
- Procedures for Analysis is a unique feature that provides students with a logical and orderly method for applying theory and building problem-solving skills. The example problems are then solved using this outlined method in order to clarify its numerical application.
- Important Points provide a summary of the most important concepts in a section and highlights the most significant points that should be realized when applying the theory to solve problems.
- Photographs are used throughout the book to explain how the principles of fluid mechanics apply to real-world situations.
- Example Problems illustrate the application of fundamental theory to practical engineering problems and reflect problem-solving strategies discussed in associated Procedures for Analysis.
- Homework Problems depict realistic situations encountered in engineering practice. This realism is intended to both stimulate interest in the subject, and provide a means for developing the skills to reduce any problem from its physical description to a model or symbolic representation to which the principles of fluid mechanics may then be applied.

CONTENTS

ABOUT THE AUTHOR

R C Hibbeler currently teaches both civil and mechanical engineering courses at the University of Louisiana, Lafayette. In the past he has taught at the University of Illinois at Urbana, Youngstown State University, Illinois Institute of Technology, and Union College.



ISBN: 9789353433697

Fluid Mechanics and Hydraulic Machines

Mahesh Kumar

992 | © **2019**

Web Supplements

ABOUT THE BOOK

This is an ideal offering for the complete course on Fluid Mechanics and Hydraulic Machines. Written in a simple and lucid style, the book covers the basic principles and its application to the solution of engineering problems. This book is apt for self-study by the students and lays down a strong foundation for problem-solving abilities.

FEATURES

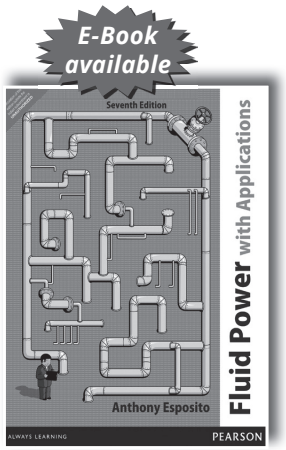
- Emphasis is given on gradual built-up of concepts with numerous illustrations.
- Exhaustive covergae of Hydraulic machines.
- More than 700 solved examples are provided. Most of these are similar to questions asked in university examination.
- A complete solutions manual is provided for the instructors.

CONTENTS

ABOUT THE AUTHOR

Mahesh Kumar is an assistant professor at the Department of Mechanical Engineering, Guru Jambheshwar University of Science and Technology, Hisar. He has both B.Tech. and M.E. degrees in Mechanical Engineering from Delhi College of Engineering, Delhi (now Delhi Technological University, Delhi). He was conferred with a Ph.D. in Mechanical Engineering from NIT Kurukshetra. He has published over 55 research articles in both national and international journals and also presented over 25 research papers, both at national and international conferences.

Best Seller



ISBN: 9789332518544

Fluid Power with Applications, 7/e

Anthony Esposito

652 | © 2013

ABOUT THE BOOK

Fluid Power with Applications, Seventh Edition presents broad coverage of fluid power technology in a readable and understandable fashion. An extensive array of industrial applications is provided to motivate and stimulate students' interest in the field. Balancing theory and applications, this text is updated to reflect current technology it focuses on the design, analysis, operation, and maintenance of fluid power systems.

FEATURES

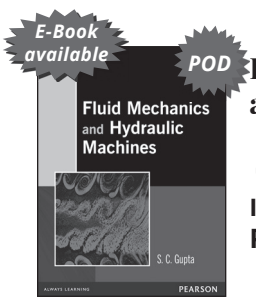
- Clear presentation presents broad coverage of material in a readable and understandable fashion. Enables instructors to rely on the text to provide much of the basic learning. Enables students to more effectively use their instructor's class time.
- Extensive use of industry-provided cutaway drawings and illustrations. Gives students a better understanding of the operation of fluid power components and systems in a real-world context.
- Ideal balance of theory and applications. Provides students with an excellent foundation for understanding the changes that take place in methodology in the field.
- Boolean Algebra with electric ladder diagrams. Combines both in presenting the material on electrical controls. Allows students to better understand how electrical currents control the operation of fluid power systems.

CONTENTS

ABOUT THE AUTHOR

Anthony Esposito was born on October 4, 1934 in Schenectady, NY. His family moved to Saratoga Springs, NY in 1948. He graduated from Saratoga Springs High School in 1953. In 1957 he received a Bachelors Degree in Mechanical Engineering from Union College in Schenectady. He was employed at General Electric Company as a design engineer in Cincinnati from 1957 to 1961 and a control systems engineer in Schenectady from 1961 to 1965.

➦ ALSO AVAILABLE...

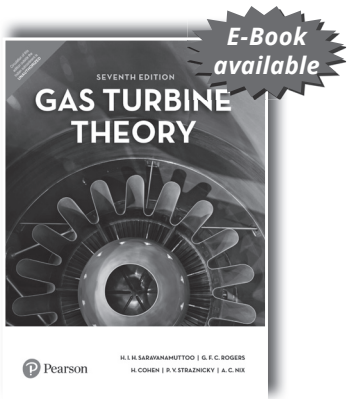


Fluid Mechanics and Hydraulic Machines

S C Gupta

ISBN: 9788177583649
Pages: 596

Web Supplements



ISBN: 9789389342215

Gas Turbine Theory, 7/e

H. Cohen | H.I.H. Saravanamuttoo | G.F.C. Rogers | Paul Straznicky | A.C Nix

628 | © 2019

ABOUT THE BOOK

Gas Turbine Theory is the classic course text on gas turbines, suitable for both undergraduate and graduate students of mechanical and aeronautical engineering. This new seventh edition will also continue to be a valuable reference for practising gas turbine engineers.

FEATURES

- Completely updated to cover current industry requirements and applications.
- Coverage of both aircraft and industrial gas turbines.
- Includes detailed treatment of off-design performance.
- Incorporates in-depth examples throughout.
- Based on the authors' extensive teaching and professional experience.

CONTENTS

1. Introduction
2. Shaft power cycles
3. Gas turbine cyles for aircraft propulsion
4. Centrifugal compressors
5. Axial flow compressors
6. Combustion systems
7. Axial and radial flow turbines
8. Mechanical design of gas turbines
9. Prediction of performance of simple gas turbines
10. Prediction of performance

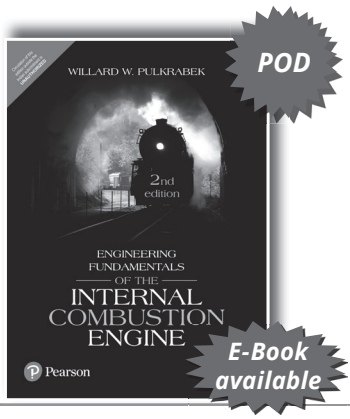
ABOUT THE AUTHOR(S)

Herb Saravanamuttoo, Professor Emeritus, Department of Mechanical and Aerospace Engineering, Carleton University, Ottawa, Canada, has many years experience in the gas turbine industry on both sides of the Atlantic, and is a Past President of the Canadian Aeronautics and Space Institute.

The late **Gordon Rogers** was Professor Emeritus of Engineering Thermodynamics at the University of Bristol. He was author, with YR Mayhew, of Engineering Thermodynamics Work and Heat Transfer, 4th edition.

The late **Henry Cohen** was formerly University Lecturer and Director of Studies in Engineering at Queens' College, Cambridge. Paul Straznicky is Professor Emeritus of Mechanical and Aerospace Engineering at Carleton University and has many years of experience as a mechanical design engineer.

Andrew Nix is an Assistant Professor of Mechanical and Aerospace Engineering at West Virginia University and has extensive experience in gas turbine design and durability, with a focus on turbine heat transfer and cooling.



ISBN: 9789332549494

Engineering Fundamentals of the Internal Combustion Engine, 2/e

Willard W. Pulkrabek

496 | © **2015**

ABOUT THE BOOK

This applied thermoscience text explores the basic principles and applications of various types of internal combustion engines, with a major emphasis on reciprocating engines. It covers both spark ignition and compression ignition engines—as well as those operating on four-stroke cycles and on two stroke cycles—ranging in size from small model airplane engines to the larger stationary engines.

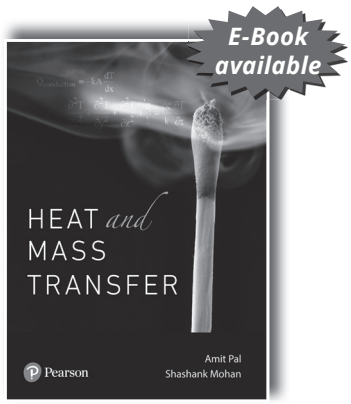
FEATURES

- NEW - Added and expanded topics—i.e., variable valve control; fuel injection; hydrogen fuel; fuel cells; and noise pollution.
- NEW - Real data from actual engines.
- NEW - Over 50 new worked example and review problems—Combine with open-ended design problems in each chapter.
- NEW - Added and improved figures throughout.
- NEW - Added historical notes.
- Use of both SI units and English units—With a conversion tables of SI and English units of common parameters used in engine work found in the Appendix.

CONTENTS

ABOUT THE AUTHOR

Willard W. Pulkrabek, University of Wisconsin - Platteville



ISBN: 9789353439736

Heat and Mass Transfer

Amit Pal | **Shashank Mohan**

874 | © **2019**

ABOUT THE BOOK

The First edition of HEAT AND MASS TRANSFER has been published to serve undergraduate students concerning with this extremely important domain of engineering science. The book is written to gradually build up the concepts and inculcate mathematical abilities in students to solve real life problems in Heat and Mass Transfer analysis. Book has been designed to make it student friendly, interesting and engaging with special focus to provide a meaningful, correct and lucid explanation of the underlying concepts.

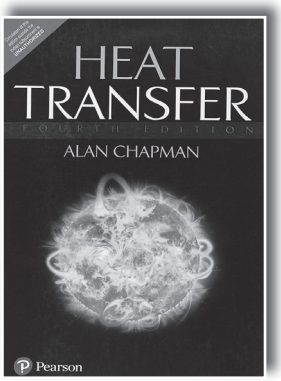
FEATURES

- Building up stepwise concepts with proper interlinking and apt illustrations.
- Exhaustive and In-depth coverage of subject.
- Plethora of Solved Examples, Multiple Choice Questions and Review Questions.
- Coverage of Competitive and University Exam questions.

CONTENTS

ABOUT THE AUTHOR(S)

Amit Pal Department of Mechanical Engineering Delhi Technological University Delhi
Shashank Mohan Department of Mechanical Engineering KIET Group of Institutions Ghaziabad, Uttar Pradesh



ISBN: 9789332575066

Heat Transfer, 4/e

Alan Chapman

624 | © **2016**

ABOUT THE BOOK

This test on heat transfer offers basic graduate engineering students a solid foundation in the subjects of conduction, convection, radiation, and phase-change, in addition to the related topic of heat transfer. It presents the fundamental concepts in a fairly rigorous manner, while showing how to analytically obtained facts can be applied with meaningful results to a real physical problem.

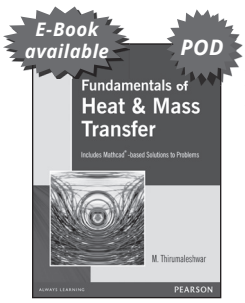
FEATURES

- Worked out examples are included throughout the work and numerous problems for student exercises are supplied with most chapters.
- The solution of problems involving the combined modes of conduction, convection and radiation has been discussed in detail.
- Appendix material is provided on certain mathematical techniques of heat conduction.
- Modern applications such as space radiators, heat pipes and solar collectors are explained in detail.

ABOUT THE AUTHOR

Alan Chapman, Rice University

➦ ALSO AVAILABLE...

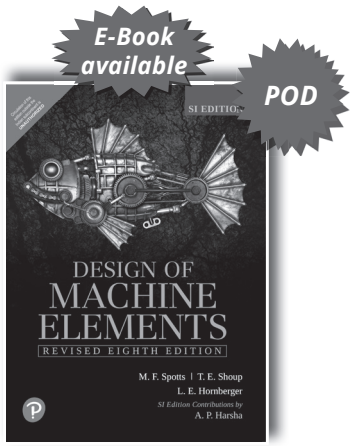


Fundamentals of Heat and Mass Transfer

M. Thirumaleshwar

ISBN: 9788177585193

Pages: 800



ISBN: 9789353433130

Design of Machine Elements, Revised 8e(SI Edition)

M F Spotts | Terry E. Shoup | L. E. Hornberge

736 | © 2019

ABOUT THE BOOK

Now in its revised eighth edition, the book has been completely SI metricated. This classic textbook on machine-design text contains 12 self-contained chapters covering the fundamental principles of this important branch of mechanical engineering. The material is drawn from a variety of sources and makes extensive use of structured computational examples to illustrate design applications.

FEATURES

- A chapter devoted to form-synthesis of machine parts to enable the reader to critique existing machine assemblages with a view toward creating improved designs.
- The book website contains 54 Microsoft Excel spreadsheet modules to assist with the implementation of complex design tasks. Most of these modules now feature drop-down menus, as well as dual-unit capabilities.
- A review of the fundamentals of the strength of materials.
- Independent chapters that can be studied in any order to accommodate a variety of learning modes.

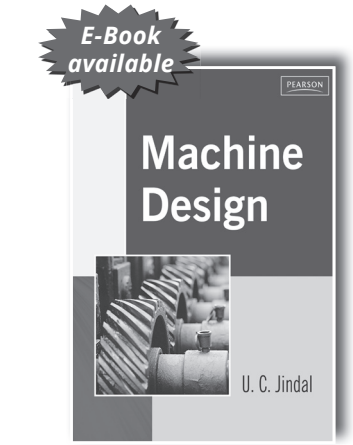
CONTENTS

ABOUT THE AUTHOR(S)

M. F. Spotts Late, Professor Emeritus of Mechanical Engineering Department Northwestern University.

T. E. Shoup Department of Mechanical Engineering Santa Clara University L. E. Hornberger Department of Mechanical Engineering Santa Clara University.

A P Harsha - Professor at Department of Mechanical Engineering at IIT BHU, Varanasi.



ISBN: 9788131716595

Machine Design

U. C. Jindal

892 | © **2010**

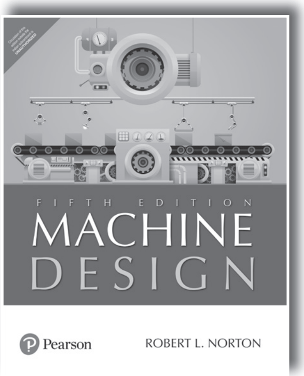
ABOUT THE BOOK

Machine Design is a text on the design of machine elements for the engineering undergraduates of mechanical/production/industrial disciplines. The book provides a comprehensive survey of machine elements and their analytical design methods. Besides explaining the fundamentals of the tools and techniques necessary to facilitate design calculations, the text includes extensive data on various aspects of machine elements, manufacturing considerations and materials. The extensive pedagogical features make the text student friendly and provide pointers for fast recapitulation.

FEATURES

- Chapter Objectives set the lesson plan for students and instructors by providing precise information on the chapter.
- An excellent selection of more than 300 solved problems which go much beyond the simple formulae substitution examples.
- More than 600 detailed line diagrams of machine parts to enable visualization and elucidation of the concepts.
- Practical Applications lists the real-life applications of key machine elements.
- Case Studies structured as a set of design projects to aid the reader in the design of components, such as line shafting, plumber block, screw jack, coupling on shaft, multi-throw crankshaft, etc. with ease.

CONTENTS



ISBN: 9789353062408

Machine Design, 5/e

Best Seller

Robert L. Norton

1092 | © **2018**

Web Supplements

ABOUT THE BOOK

Machine Design, 5e presents the subject matter in an up-to-date and thorough manner with a strong design emphasis. This textbook emphasizes failure theory and analysis as well as the synthesis and design aspects of machine elements. The book points out the commonality of the analytical approaches needed to design a wide variety of elements and emphasizes the use of computer-aided engineering as an approach to the design and analysis of these classes of problems.

FEATURES

- NEW - New sections covering the fundamentals of kinematics have been added to Chapter 3. These will be of value in those curricula where kinematics has been added to the machine design course syllabus.
- Case Studies - The text is structured around a series of ten case studies that represent realistic design problems. These case studies present different aspects of the same design problem in successive chapters. The case studies provide a series of machine design projects throughout the book that contain various combinations of the elements normally dealt with in this type of text. The assemblies contain some collection of elements such as links subjected to combined axial and bending loads, column members, shafts in combined bending and torsion, gearsets under alternating loads, return springs, fasteners under fatigue loading, rolling element bearings, etc.
- NEW - Over 90 problems are added or revised with all being in SI units.

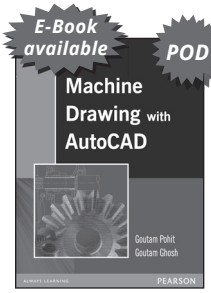
CONTENTS

ABOUT THE AUTHOR

Robert L. Norton earned undergraduate degrees in both mechanical engineering and industrial technology at Northeastern University and an MS in engineering design at Tufts University.

MACHINE DRAWING

MACHINE DRAWING AVAILABLE TITLES



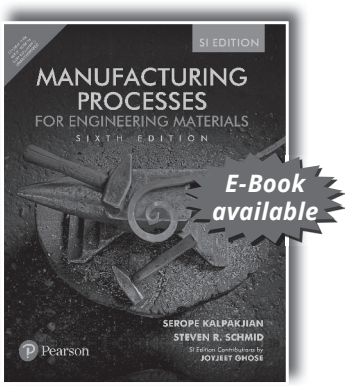
Machine Drawing with AutoCAD

Goutam Pohit / Goutam Ghosh

ISBN: 9788131706770
Pages: 496

MANUFACTURING TECHNOLOGY/PRODUCTION TECHNOLOGY

Best Seller



ISBN: 9789353062910

Manufacturing Processes for Engineering Materials. 6/e (SI edition)

Serope Kalpakjian | Steven R. Schmid

1136 | © 2018

Web Supplements

ABOUT THE BOOK

Manufacturing Processes for Engineering Materials, 6e (SI Units) addresses advances in all aspects of manufacturing, clearly presenting comprehensive, up-to-date, and balanced coverage of the fundamentals of materials and processes.

With the Sixth Edition, students will learn to properly assess the capabilities, limitations, and potential of manufacturing processes and their competitive aspects. The numerous examples and case studies throughout the book help to develop a perspective on the real-world applications of the topics described in the book. As in previous editions, this text maintains the same number of chapters while continuing to emphasize the interdisciplinary nature of all manufacturing activities, including the complex interactions among materials, design, and manufacturing processes.

FEATURES

- Chapter and Content Updates include:
- Economic multiplier; technology readiness level; case study on three-dimensional printing of guitars; expansion of general trends in manufacturing.
- Advanced high-strength steels; 3rd generation steels; expansion of discussion on magnesium; chromium; rare-earth metals.
- Environmentally-friendly lubricants; validation of products and processes.
- Strip casting; mold ablation; design of ribs in castings; computer modeling of casting; a new case study.
- Servo presses; electrically-assisted forging; the Hall process; a new case study.
- Single-point incremental forming; age forming; hot stamping.
- Electrically-conductive polymers; big-area additive manufacturing; laser engineered net shaping; friction stir modeling; the Maker movement; design for additive manufacturing.
- Expansion of metal injection molding; dynamic compaction of powders; combustion synthesis; pseudo-isostatic pressing; roll densification; graphene.
- Expansion of friction welding; case study on Blisks.
- The Questions, Problems, and Design problems at the end of each chapter have been significantly expanded.

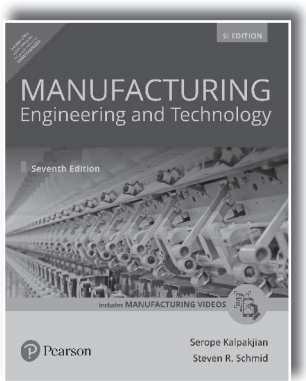
CONTENTS

ABOUT THE AUTHOR(S)

Serope Kalpakjian is professor emeritus of mechanical and materials engineering at the Illinois Institute of Technology. He is the author of Mechanical Processing of Materials and co-author of Lubricants and Lubrication in Metalworking Operations (with E.S. Nachtman); both of the first editions of his textbooks Manufacturing Processes for Engineering. Materials and Manufacturing Engineering and Technology have received the M. Eugene Merchant Manufacturing Textbook Award. He has conducted research in various areas of manufacturing, is the author of numerous technical papers and articles in handbooks and encyclopedias, and has edited several conference proceedings. He also has been editor and co-editor of various technical journals and has served on the editorial board of Encyclopedia Americana.

Steven R. Schmid is professor of Aerospace and Mechanical Engineering at the University of Notre Dame, where he teaches and conducts research in the general areas of manufacturing, machine design, and tribology. He received his B.S. degree from Illinois Institute of Technology (with Honors) and Master's and Ph.D. degrees from Northwestern University, all inmechanical engineering. He has received numerous awards, including the John T. Parsons Award from SME, the Newkirk Award from ASME, the Kaneb Center Teaching Award (three times), and the Ruth and Joel Spira Award for Excellence in Teaching.

Manufacturing Engineering & Technology, 7/e (SI Edition)



Serope Kalpakjian | Steven R. Schmid

1164 | © 2018

Web Supplements

Best Seller

ISBN: 9789332587908

ABOUT THE BOOK

The book continues to address the various challenges and issues in modern manufacturing processes and operations, ranging from traditional topics such as casting, forming, machining, and joining processes, to advanced topics such as the fabrication of microelectronic devices and microelectromechanical systems and nanomanufacturing. The book provides numerous examples and case studies, as well as comprehensive and up-to-date coverage of all topics relevant to modern manufacturing, as a solid background for students as well as for professionals.

FEATURES

- An excellent overview of manufacturing concepts is provided with a balance of relevant fundamentals and real-world practices.
- Coverage of the latest technological advances, like rapid prototyping, the most dramatic change in manufacturing in recent years. Also includes coverage of nanofabrication, rapid tooling, and semisolid metalworking making this is one of the most up-to-date texts available.
- A wealth of examples and industrially-relevant case studies demonstrate the importance of the subject matter, offer a real-world perspective, and keep students interested and engaged.
- Superior use of analogies, discussions, and problems motivate students' interest in the material.

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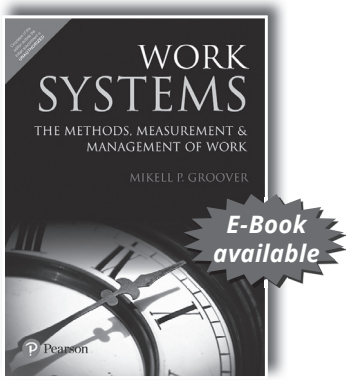
ABOUT THE AUTHOR(S)

Serope Kalpakjian is a professor emeritus of mechanical and materials engineering at the Illinois Institute of Technology, Chicago. He is the author of Mechanical Processing of Materials (Van Nostrand, 1967) and co-author of Lubricants and Lubrication in Metalworking Operations (with E.S. Nachtman, Dekker, 1985). Both of the first editions of his books Manufacturing Processes for Engineering Materials (Addison- Wesley, 1984) and Manufacturing Engineering and Technology (Addison-Wesley, 1989) have received the M. Eugene Merchant Manufacturing Textbook Award of SME. He is the author of numerous technical papers and articles in professional journals, handbooks, and encyclopedias; and has edited several conference proceedings.

Steven R. Schmid is an associate professor in the Department of Aerospace and Mechanical Engineering at the University of Notre Dame, where he teaches and conducts research in the general areas of manufacturing, machine design, and tribology. He received his bachelor's degree in mechanical engineering from the Illinois Institute of Technology (with Honors) and master's and Ph.D. degrees, both in mechanical engineering, from Northwestern University. He has received numerous awards, including the John T. Parsons Award from SME (2000), the Newkirk Award from ASME (2000), the Kaneb Center Teaching Award (2000 and 2003), and the Ruth and Joel Spira Award for Excellence in Teaching (2005). He is also the recipient of a National Science Foundation CAREERS Award (1996) and an ALCOA Foundation Award (1994).

Work Systems: The Methods, Measurement & Management of Work



ISBN: 9789332581241

Mikell P. Groover

820 | © **2017**

Web Supplements

ABOUT THE BOOK

Divided into two major areas of study - work systems, and work methods, measurement, and management - this guidebook provides up-to-date, quantitative coverage of work systems and how work is analyzed and designed. Thorough, broad-based coverage addresses nearly all of the traditional topics of industrial engineering that relate to work systems and work science.

FEATURES

- Work systems discussion - Includes topics such as worker-machine systems, assembly lines, service operations, office work, projects, and material handling.
- Work methods, measurement, and management coverage -Addressesmethods engineering, operations analysis, facilities planning, time study, ergonomics, lean production, six sigma quality programs, work organization, and compensation systems.
- Thirty chapters are organized into six parts - Work Systems and How They Work; Methods Engineering and Layout Planning; Time Study and Work Measurement; New Approaches in Process Improvement and Work Management; Ergonomics and Human Factors in the Workplace, and Traditional Topics in Work Management.
- Unique historical notes - Provide a valuable perspective on the various techniques and topics discussed.
- Emphasis on the management aspects of work - Covers topics such as organization theory, wage administration, worker motivation, and job evaluation.
- Broadened scope of time and motion study - Addresses the systems

CONTENTS

PART IV New Approaches in Process Improvement and Work Management

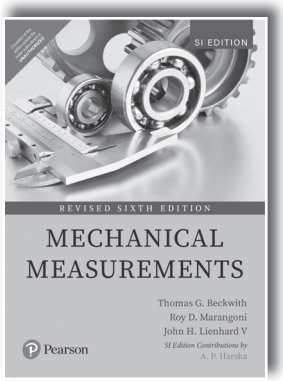
20. Lean Production
21. Six Sigma and Other Quality Programs

Part V Ergonomics and Human Factors in the Workplace

22. Introduction to Ergonomics and Human Factors
23. Physical Ergonomics: Work Physiology and Anthropometry
24. Cognitive Ergonomics: the Human Sensory System and Information Processing
25. The Physical Work Environment
26. Occupational Safety and Health

Part VI Traditional Topics in Work Management

27. Work Organization
28. Worker Motivation and the Social Organization at Work
29. Job Evaluation and Performance Appraisal
30. Compensation Systems



ISBN: 9789353945633

Mechanical Measurements, Revised 6e in SI Units

Thomas G. Beckwith | John H. Lienhard V | Roy D. Marango

792 | © 2020

ABOUT THE BOOK

Pearson introduces the Revised Sixth Edition of Mechanical Measurements in SI Units. This much-anticipated revision of the text continues to set the standard. Emphasizing precision and clarity, the authors cover fundamental issues common to all areas of measurement in Part One, then present individual chapters on applied areas of measurement in Part Two. The text's modular format makes it accessible to undergraduate students of most engineering disciplines, particularly mechanical engineering, aerospace engineering, and engineering technology.

FEATURES

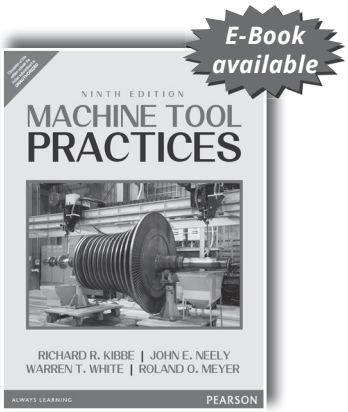
- SI Units - The text is now completely SI metricated.
- Flexible presentation - Fits several di erent course formats and accommodates a wide variety of skill levels.
- Separate areas of applied measurements - Help students see the relevance of mechanical measurement to their own eld of interest and o er motivation by addressing real-world measurement problems

CONTENTS

ABOUT THE AUTHOR(S)

Thomas G. Beckwith, University of Pittsburgh
Roy D. Marangoni, University of Pittsburgh
John H. Lienhard, V, Massachusetts Institute of Technology Mechanical Engineering

SI Edition contributions by
A. P. Harsha, Professor & Head, Department of Mechanical Engineering, Indian Institute of Technology (BHU), Varanasi



ISBN: 9789332550032

Machine Tool Practices, 9/e

Richard R. Kibbe | John E. Neely | Warren T. White | Roland O. Meyer

820 | © 2015

ABOUT THE BOOK

This text was developed to provide a richly illustrated, intensely visual treatment of basic machine tool technology and related subjects, including measurement and tools, reading drawings, mechanical hardware, hand tools, metallurgy, and the essentials of CNC. Covering introductory through advanced topics, Machine Tool Practices is formatted so that it may be used in a traditional lab-lecture program or a self-paced program. The book is divided into major sections that contain many instructional units. Each unit contains listed objectives, self tests with answers, and boxed material covering shop tips, safety, and new technologies.

FEATURES

NEW TO THIS EDITION

- Heavily illustrated throughout including 80% new artwork in this edition!
  - 600 new photos!
  - 1,500 revised line drawings!
- Expanded/Updated CNC content.
- Additional CAM coverage.

HALLMARK FEATURES

- Comprehensive approach presents the major core subject areas needed by today's machinists.
- Includes hundreds of photos of actual machining operations.
- Graphic explanations highlight important concepts and common errors and difficulties encountered by machinists.
- Many units are designed around specific projects that provide performance experience for the student.
- Self tests at the end of most units help students evaluate their own progress and understanding of the text material.

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4. Annealing, Normalizing, and Stress Relieving
5. Rockwell and Brinell Hardness Testers

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1. Basic Semiprecision Layout Practice
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2. Speeds and Feeds for Machine Tools
3. Cutting Fluids
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3. Cutting Tools for the Lathe
4. Lathe Spindle Tooling
5. Operating the Machine Controls
6. Facing and Center Drilling
7. Turning between Centers
8. Alignment of the Lathe Centers
9. Other Lathe Operations
10. Sixty-Degree Thread Information and Calculations
11. Cutting Unified External Threads
12. Cutting Unified Internal Threads
13. Cutting Tapers
14. Using Steady and Follower Rests
15. Additional Thread Forms
16. Cutting Acme Threads on the Lathe

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2. Cutting Tools and Cutter Holders for the Vertical Milling Machine
3. Setups on the Vertical Milling Machine
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3. Arbor-Driven Milling Cutters
4. Work-Holding Methods and Standard Setups
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2. Truing, Dressing, and Balancing of Grinding Wheels
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5. Work Holding on the Surface Grinder
6. Using the Surface Grinder
7. Problems and Solutions in Surface Grinding
8. Center-Type Cylindrical Grinders
9. Using the Cylindrical Grinder
10. Universal Tool and Cutter Grinder

SECTION M
Computer Numerical Control and Other Advanced Machining Processes

1. CNC Machine Tool Programmable Axes and Position Dimensioning Systems
2. CNC Programming
3. CNC Tooling
4. Other Advanced Machining Processes

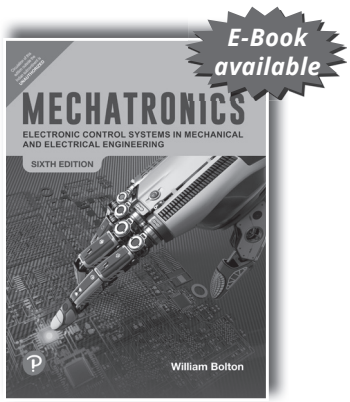
ABOUT THE AUTHOR(S)

Richard R. Kibbe served his apprenticeship in the shipbuilding industry and was graduated as a journeyman marine machinist. He holds an Associate in Arts degree in applied arts from Yuba Community College with an emphasis in machine tool technology. He also holds Bachelor's and Master's degrees from the California State University with an emphasis in machine tool manufacturing technology.

Roland O. Meyer spent the first 20 years of his career in the metal-working industry as a tool and die maker, machinist and worked in machine design and manufacturing. He completed his apprenticeship as a tool and die maker at Siemens in Germany and continued there as a journeyman building progressive punching dies.

John E. Neely grew up in the Pacific Northwest and entered the Army to serve in World War II. The life John E. Neely is characterized by hard work, a variety of successes, and mentoring many others who became a part of his life.

Warren White apprenticed as an Optical Instrument Maker with Land-Air, Inc. After military service with the Army Air Defense Board he obtained a graduate degree in Psychology at Clark University. His interest in both learning theory and machine tools led to employment at Foothill College in the Engineering Department.



ISBN: 9789353065881

Mechatronics: Electronic Control Systems in Mechanical and Electrical Engineering, 6e

William Bolton

682 | © 2019

Web Supplements

ABOUT THE BOOK

The integration of electronic engineering, mechanical engineering, control and computer engineering - mechatronics - lies at the heart of innumerable gadgets, processes and technology that make modern life possible. From auto-focus cameras to car engine management systems, and from state-of-the-art robots to the humble washing machine, mechatronics has a hand in them all. This book presents a clear and comprehensive introduction to the area. Practical and applied, it helps you to acquire the mix of skills you will need to comprehend and design mechatronic systems. It also goes much deeper, explaining the very philosophy of Mechatronics and, in so doing, provides you with a frame of understanding to develop a truly interdisciplinary and integrated approach to engineering.

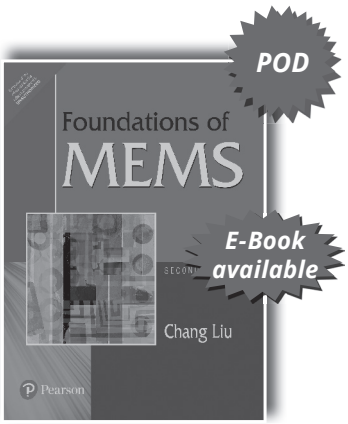
FEATURES

- Inclusion of material on the Arduino open-source electronic prototyping platform and the Arduino programming language.
- Includes more in-depth discussion of op-amps, mechanisms, and motor selection to improve clarity and extend applications.
- A section on robotic systems.

CONTENTS

ABOUT THE AUTHOR

Formerly Consultant to Further Education Unit, and Head of Research, Development & Monitoring BTEC.



ISBN: 9788131764756

Foundations of MEMS, 2/e

Chang Liu

576 | © 2011

Web Supplements

ABOUT THE BOOK

Foundations of MEMS is an entry-level text designed to systematically teach the specifics of MEMS to an interdisciplinary audience. Liu discusses designs, materials, and fabrication issues related to the MEMS field by employing concepts from both the electrical and mechanical engineering domains and by incorporating evolving microfabrication technology—all in a time-efficient and methodical manner. A wealth of examples and problems solidify students' understanding of abstract concepts and provide ample opportunities for practicing critical thinking.

FEATURES

Concise background information from several engineering domains:

- Makes students conversant with unfamiliar concepts and practices that are needed to solve MEMS problems.
- Presents exciting new opportunities for a student and practitioner of MEMS to become involved in specific application domains, such as bioengineering, chemistry, nanotechnology, optical engineering, power and energy, and wireless communication.
- Systematic teaching of materials, design, and fabrication issues, in an ascending and widening spiral introduces topics in an ordered and logical progression.
- Critical-thinking challenges foster a deeper understanding of the subject matter and show students how to think like engineers.
- Extensive examples and homework problems help teachers explain difficult concepts and assist students in practicing these concepts.
- Current data and up-to-date materials keep students and researchers abreast of the latest technologies.

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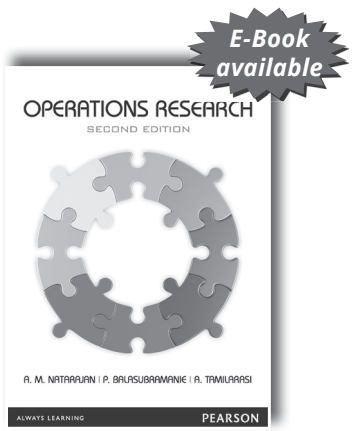
ABOUT THE AUTHOR(S)

Chang Liu received his M.S. and Ph.D. degrees from the California Institute of Technology in 1991 and 1995, respectively. His Ph.D. thesis was titled Micromachined sensors and actuators for fluid mechanics applications. In January 1996, he joined the Microelectronics Laboratory of the University of Illinois as a postdoctoral researcher. In January 1997, he became an assistant professor with major appointment in the Electrical and Computer Engineering Department and joint appointment in the Mechanical and Industrial Engineering Department. In 2003, he was promoted to the rank of Associate Professor with tenure. In 2007, Chang Liu joined Northwestern University (Evanston, Illinois) as a full professor of engineering. He established the MedX Laboratory to conduct advanced engineering research for medicine and health care.



ISBN: 9789332526471

Operations Research, 2/e

A. M. Natarajan | P. Balasubramani | A. Tamilarasi

744 | © 2014

ABOUT THE BOOK

Operations research is the study of optimization techniques. Designed to cater to the syllabi requirements of Indian universities, this book on operations research reinforces the concepts discussed in each chapter with solved problems. A unique feature of this book is that with its focus on coherence and clarity, it hand-holds students through the solutions, each step of the way.

FEATURES

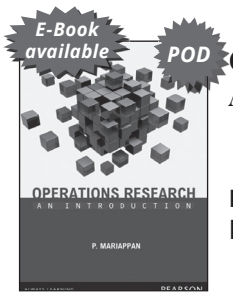
- Graphical solution to linear programming problems discussed by means of appropriate examples.
- Economic interpretation of dual variables explained and various computational techniques elucidated.
- Applications of the simulation model in practical business problems illustrated.
- Detailed analysis of the critical path method (CPM) and the project evaluation review technique (PERT).
- Non-linear programming problems, quadratic programming and separable programming highlighted along with their applications.

CONTENTS

ABOUT THE AUTHOR(S)

A. M. Natarajan is Chief Executive Officer atBannari Amman Institute of Technology, Sathyamangalam
P. Balasubramanie is Professor, Department of Computer Science and Engineering Kongu Engineering College Perundurai, Erode, Tamil Nadu
A. Tamilarasi is Professor, Department of Computer Science and Engineering Kongu Engineering College Perundurai, Erode, Tamil Nadu

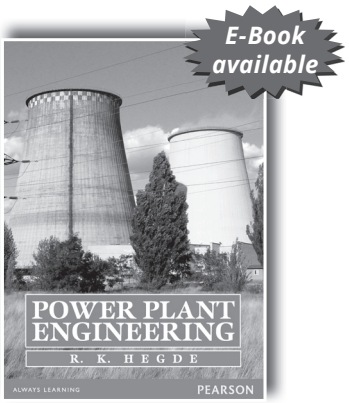
➦ ALSO AVAILABLE...



Operations Research: An Introduction

P Mariappan

ISBN: 9788131799345
Pages: 525



ISBN: 9789332534100

Power Plant Engineering

R. K. Hegde

912 | © 2015

Web Supplements

ABOUT THE BOOK

Power Plant Engineering has been written to cater to the needs of budding mechanical engineers in their undergraduate study. Supplemented by clear illustrations and solved examples, the book provides a comprehensive coverage of topics at the required depth to students gain a firm foothold in the subject.

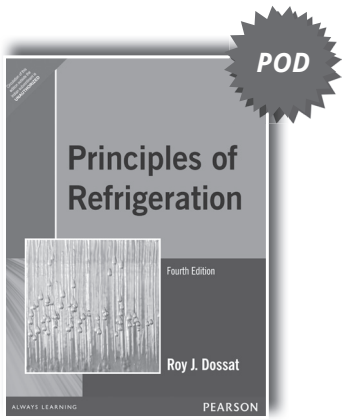
FEATURES

- Information on contemporary topics in power plant technology such as super critical boiler technology.
- Practical approach to delineate complex topics with visual aids and representational schemes.
- Exhaustive coverage of power generation from non-conventional sources of energy.
- Ample solved examples, multiple-choice and exercise questions for practice.

CONTENTS

ABOUT THE AUTHOR

R. K. Hegde is Professor, Department of Mechanical Engineering in Srinivas Institute of Technology, Mangalore, Karnataka. The author has more than 20 years of rich industrial and academic experience. Earlier he was involved in power plant operation and maintenance, handling high pressure FBC boilers, Babcock–Wilcox boilers, turbines and pumps. He worked in a power plant in maintenance and is also an authorized boiler operation engineer.



ISBN: 9788177588811

Principles of Refrigeration, 4/e

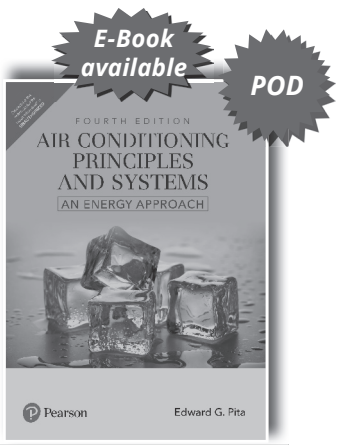
Roy J. Dossat

512 | © 2006

ABOUT THE BOOK

Classic presentation of the principles, applications, and design of refrigeration systems and equipment. No special background in thermodynamics, physics, or calculus is required, as the essential concepts are reviewed in the first five chapters.

CONTENTS



ISBN: 9789352866724

Air Conditioning Principles and Systems, 4/e

Edward G Pita

584 | © **2018**

ABOUT THE BOOK

This text explores the fundamental concepts of air conditioning and their application to systems—explaining all concepts in a clear, practical manner, and focusing on problems and examples typically encountered on the job. It covers the latest, yet practical methods of load calculations, psychometrics, system design, and equipment description and performance.

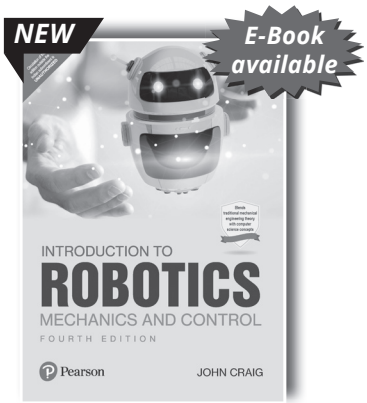
FEATURES

- Describes energy codes and standards, and examines each topic from an energy conservation viewpoint which is essential for all future work in the air conditioning field.
- Covers indoor air quality; air pollution from combustion; and the environmental requirements on refrigerants.
- Exahustive Coverage of HVAC equipment description, performance, selection and specifications.
- Include example projects which provide students with hands-on learning experiences that require them to analyze how the system functions and is essential for installation, operation, and service as well as design.

CONTENTS

ABOUT THE AUTHOR

Edward G. Pita was Professor Emeritus and Adjunct Professor in the Environmental Control Technology Department at New York City Technical College of the City University of New York. He received a B.S. degree from Purdue University, an M.S. degree from Columbia University, and a Ph.D. degree from the University of Maryland, all in mechanical engineering. He is a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and is a registered professional engineer.



ISBN: 9789356062191

Introducution to Robotics, 4e

John J. Craig

456 | © 2022

ABOUT THE BOOK

Since its original publication in 1986, Craig's Introduction to Robotics: Mechanics and Control has been the leading textbook for teaching robotics at the university level. Blending traditional mechanical engineering material with computer science and control theoretical concepts, the text covers a range of topics, including rigid-body transformations, forward and inverse positional kinematics, velocities and Jacobians of linkages, dynamics, linear and non-linear control, force control methodologies, mechanical design aspects, and robotic programming.

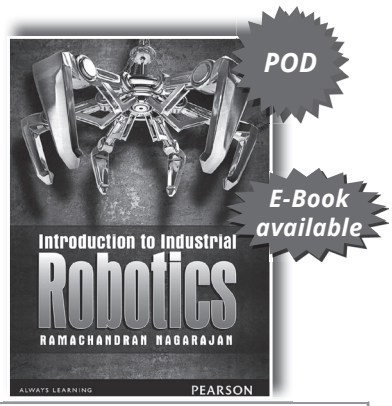
The 4th Edition features a balance of application and theory, introducing the science and engineering of mechanical manipulation--establishing and building on foundational understanding of mechanics, control theory, and computer science. With an emphasis on computational aspects of problems, the text aims to present material in a simple, intuitive way.

FEATURES

- Real-world applications present underlying theories in simple, understandable ways. This practicality helps students learn how to write algorithms to perform required computations.
- End-of-chapter exercises feature "difficulty grades" so instructors can assign to students and easily implement a grade-point plan.
- Programming Assignments at the end of each chapter emphasize concepts from a software perspective.
- A balanced approach presents robotics concepts from mechanical, control theory, and computer science subdisciplines.
- NEW! Additional exercises have been added to the end of each chapter.
- UPDATED! New references, materials, and figures account for changing technology and reflect today's robotics landscape.
- REVISED! More than 100 minor typos have been corrected throughout the text.
- NEW! Two sections have been added, including Section 8.9 on optical encoders and Section 10.9 on adaptive control.

CONTENTS

Introduction to Industrial Robotics



Ramachandran Nagarajan

320 | © **2016**

ISBN: 9789332544802

ABOUT THE BOOK

Robotics is the branch of technology that deals with the design, construction, operation, and application of robots. It is a subject offered to the students of mechanical engineering in their final year. This book is written to cover the needs of a budding engineer at the undergraduate level.

This book emphasizes on building the fundamental concepts along with necessary mathematical analysis and graphical representation. Numerical problems are also present for better understanding the topics.

FEATURES

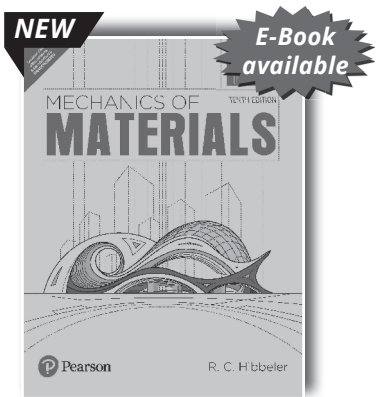
- A detailed listing of chronological development of Robots Technology.
- Composite transformation matrix , Object manipulations and wrist articulations are explained with detailed examples.
- Lucid coverage of grippers and tools with self explanatory figures.
- Detailed coverage of Robot applications in industries.

CONTENTS

1. Introduction to Robotics
2. Grippers and tools of Industrial robots
3. Coordinate transformation
4. Kinematics
5. Robot sensors
6. Robot control
7. Robot Programming and work cell
8. Robot Vision
9. Robot applications
10. Robot trajectory planning
11. Economic analysis of Robots
12. Artificial Intelligence
13. Robot Dynamics
14. FLC of Robot Joints
15. Medical applications of Robots
16. Helping the visually impaired for their autonomous navigation

ABOUT THE AUTHOR

Ramachandran Nagarajan was Former Professor in Robotics, School of Engineering, Universiti Malaysia Perlis, Malaysia



ISBN: 9789354492259

Mechanics of Materials, 10e

R C Hibbeler

896 | © 2022

ABOUT THE BOOK

Mechanics of Materials clearly and thoroughly presents the theory and supports the application of essential mechanics of materials principles. Professor Hibbeler's concise writing style, countless examples, and stunning four-color photorealistic art program — all shaped by the comments and suggestions of hundreds of colleagues and students — help students visualize and master difficult concepts. The Tenth Edition retains the hallmark features synonymous with the Hibbeler franchise, but has been enhanced with the most current information, a fresh new layout, added problem solving, and increased flexibility in the way topics are covered in class.

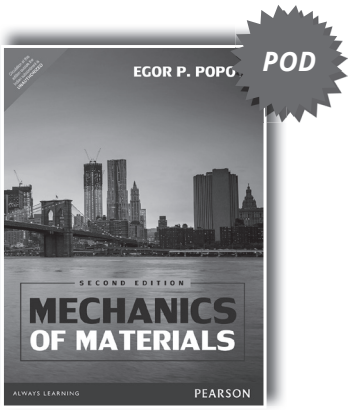
FEATURES

- Well-defined sections are part of each chapter and contain explanations of specific topics, illustrative example problems, and a set of homework problems. The topics within each section are placed into subgroups, defined by titles, which present a structured method for introducing each new definition or concept and making the book convenient for later reference and review.
- A full-page illustration begins each chapter and indicates a broad-range application of the chapter material.
- Chapter Objectives are then provided to give a general overview of the material that will be covered.
- Thorough End-of-Chapter Reviews include the Important Points, accompanied by relevant equations and art.
- Appendixes provide a source for review and a listing of tabular data. Appendix A covers information on the centroid and the moment of inertia of an area. Appendixes B and C list tabular data for structural shapes, and the deflection and slopes of various types of beams and shafts.

CONTENTS

ABOUT THE AUTHOR

Professor Hibbeler currently teaches both civil and mechanical engineering courses at the University of Louisiana–Lafayette. In the past, he has taught at the University of Illinois at Urbana, Youngstown State University, Illinois Institute of Technology, and Union College.



ISBN: 9789332559547

Mechanics of Materials, 2/e

Egor P. Popov

608 | © **2016**

ABOUT THE BOOK

This volume stresses fundamental principles of mechanics of materials, and introduces applications from various fields of engineering.

FEATURES

- Includes numerous solved examples.
- Uses English and SI units throughout.

CONTENTS

ABOUT THE AUTHOR

Egor P. Popov, University of California, Berkeley.

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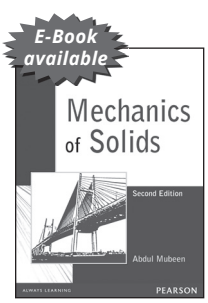
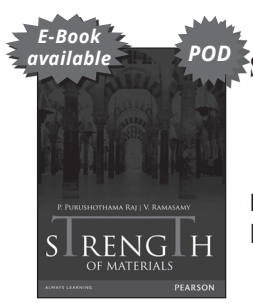


Mechanics of Solids, 2/e

Abdul Mubeen

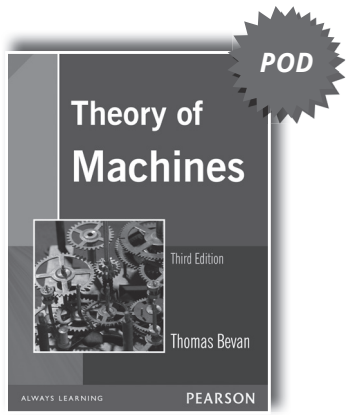
ISBN: 9788131758885
Pages: 668



Strength of Materials

P.Purushothama Raj / V. Ramasamy

ISBN: 9788131768549
Pages: 488



ISBN: 9788131729656

The Theory of Machines, 3/e

Thomas Bevan

630 | © **2009**

ABOUT THE BOOK

The book is largely based on lectures given at the Manchester College of Technology. The lectures cover a period of one hour a week for three sessions. This book is valuable for the students who are preparing for a University degree in engineering.

CONTENTS

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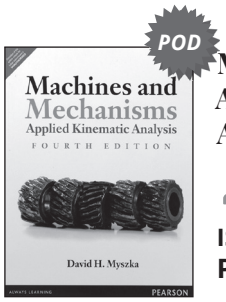
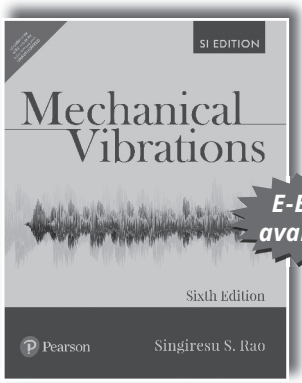


Machines & Mechanisms: Applied Kinematic Analysis, 4/e

David H. Myszka

ISBN: 9789332555204
Pages: 384

Best Seller



E-Book available

ISBN: 9789353062569

Mechanical Vibrations, 6/e

Singiresu S Rao

1152 | © 2018

Web Supplements

ABOUT THE BOOK

Retaining the style of previous editions, this sixth SI edition of Mechanical Vibrations effectively presents theory,computational aspects, and applications of vibration in a lucid manner. With an emphasis on computer techniques of analysis, it gives expanded explanations of the fundamentals, focusing on physical significance and interpretation that build upon students' previous experience.

In this edition, several additions and revisions have been made—including new examples, problems, and illustrations—with the goal of making coverage of concepts both more comprehensive and easier to follow.

FEATURES

- Each topic is self-contained, with all concepts explained fully and the derivations presented with complete details.
- Computational aspects are emphasized throughout the book. MATLAB-based examples as well as several general purpose MATLAB programs with illustrative examples are given in each chapter.
- The description and formulation of vibration problems in several different systems of units is considered to obtain the same response of the physical system.

  Pedagogy includes:
  - 34 design-project-type problems
  - 55 MATLAB programs
  - 252 illustrative examples
  - 988 review questions
  - 1214 problems

CONTENTS

1. Fundamentals of Vibration
2. Free Vibration of Single-Degree-of-Freedom Systems
3. Harmonically Excited Vibration
4. Vibration Under General Forcing Conditions
5. Two-Degree-of-Freedom Systems
6. Multidegree-of-Freedom Systems
7. Determination of Natural Frequencies and Mode Shapes
8. Continuous Systems
9. Vibration Control
10. Vibration Measurement and Applications
11. Numerical Integration Methods in Vibration Analysis
12. Finite Element Method
13. Nonlinear Vibration
14. Random Vibration

ABOUT THE AUTHOR

Singiresu S Rao University of Miamii

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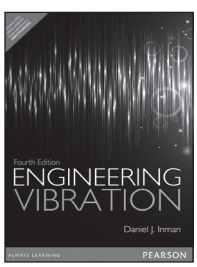
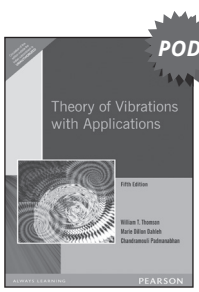


Engineering Vibrations, 4/e

Daniel J Inman

E-Book available

ISBN: 9789332518483
Pages: 705



POD

Theory of Vibrations with Applications, 5/e

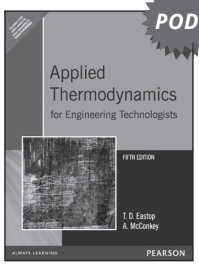
E-Book available

William T. Thomson / Marie Dillon Dahleh

ISBN: 9788131704820
Pages: 512

Web Supplements

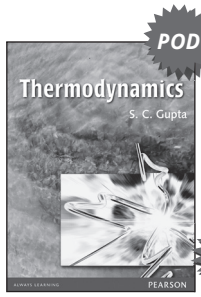
THERMODYNAMICS AVAILABLE TITLES



Applied Thermodynamics for Engineering Technologists, 5/e

T. D. Eastop / A. McConkey

ISBN: 9788177582383
Pages: 736



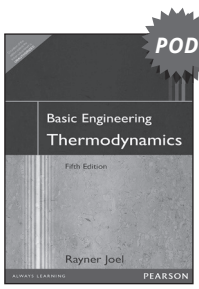
Thermodynamics

S C Gupta

ISBN: 9788131717950
Pages: 552

E-Book available

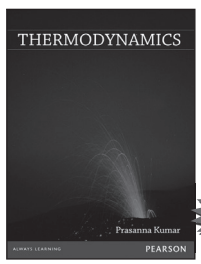
Web Supplements



Basic Engineering Thermodynamics, 5/e

Rayner Joel

ISBN: 9788131718889
Pages: 660

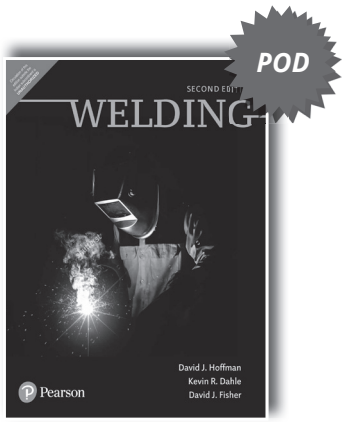


Thermodynamics

Prasanna Kumar

ISBN: 9788131771853
Pages: 616

E-Book available



ISBN: 9789332585584

Welding, 2/e

David J. Hoffman | Kevin R. Dahle | David J. Fisher

656 | © 2017

ABOUT THE BOOK

An easy-to-read and highly visual "diameter of electrodes" approach to welding. Most textbooks do not cover smaller diameter electrodes well. Welding does. With over 50 years combined experience, the authors have created a book that is both reference-friendly and incredibly engaging to students and professionals alike. With setups for every important weld and step-by-step procedures and photos for every step, this is the only book on welding you will ever need.

Welding provides readers with cleanly designed and concise chapters. Essential coverage of safety, theory, key skills, easy-to-read reference charts and tables, detailed step-by-step procedures, and a strong emphasis on the diameter of electrodes is covered in a simple, yet comprehensive way. After an introduction to welding and to welding safety, each major welding process is presented in its own chapter so they can easily be discussed in the classroom. Following the weld processes, chapters focus on critical topics such as codes, destructive and non-destructive weld testing, welding symbols, welding metallurgy, welding ferrous and nonferrous alloys, and welding power sources.

The Second Edition has been updated to include a new chapter on pipe welding and techniques, a new macro look at metallurgy, and a more procedural approach to welding alloys. Welding codes and testing have also been split into two separate chapters, for accessibility and ease of use.

FEATURES

- NEW! Welding codes and testing can now be found in two separate chapters: Welding Codes (Chapter 14) and Weld Testing (Chapter 15). This logical division makes information easier to find and aids instructors in course design.
- Detailed, step-by-step procedures break down the entire process of weld setups and techniques. Using descriptions and photographs to walk readers through procedures from start to finish, this method builds both mastery and confidence.
- Logical, consistent organization in all welding chapters and introductions—safety information and tables; power source and peripherals coverage; setup; step-by-step procedures; technique features; information on modes of metal transfer, electrodes, and shielding gases; and finally, chapter questions—supports easier understanding and quicker, more efficient reference.
- A spacious one-column design, with great summary tables and charts, makes this an open and inviting textbook that is extremely accessible to students.

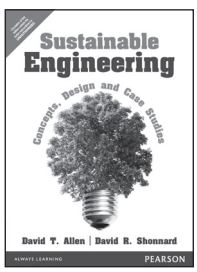
CONTENTS

ABOUT THE AUTHOR(S)

Kevin Dahle has twenty years of experience teaching as a welding instructor at the Associate Degree and Vocational Diploma levels. In addition, he has taught welding apprentices, as well as related welding courses for transportation technology students and agriculture students. Kevin has been involved in training for industry and responsible for overseeing welder and procedure qualifications as an AWS Certified Welding Inspector.

David Fisher Member, American Welding Society Certified Welding Inspector Fox Valley Technical College David Fisher has five years of experience teaching as a welding/metal fabrication instructor at the Associate Degree and Vocational Diploma levels. In addition, he has taught welding apprentices, as well as related welding courses for transportation technology students and agriculture students. David has been involved in training for industry and responsible for overseeing welder and procedure qualifications as an AWS Certified Welding Inspector.
David Hoffman Member, American Welding Society Certified Welding Inspector Certified CRAW Technician Fox Valley

GENERAL ENGINEERING

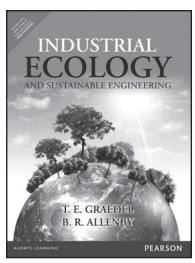


Sustainable Engineering: Concepts, Design and Case Studies

Allen / Shonnard

ISBN: 9789332556577

Pages: 240

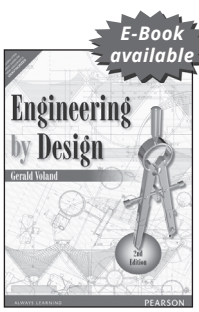


Industrial Ecology and Sustainable Engineering

Graedel / Allenby

ISBN: 9789332556959

Pages: 428 *E-Book available*



E-Book available

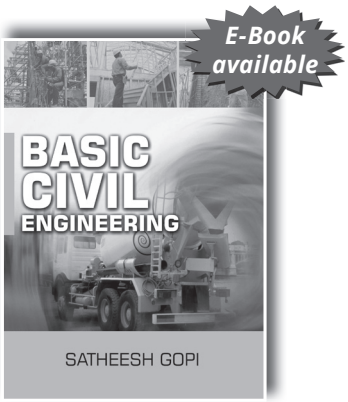
Engineering by Design, 2/e

Gerald Voland

ISBN: 9789332535053

Pages: 496

Civil Engineering



ISBN: 9788131729885

Basic Civil Engineering

Satheesh Gopi

348 | © 2009

ABOUT THE BOOK

Basic Civil Engineering is designed to enrich the preliminary conceptual knowledge about civil engineering to the students of non-civil branches of engineering. The coverage includes materials for construction, building construction, basic surveying and other major topics like environmental engineering, geo-technical engineering, transport traffic & urban engineering, irrigation & water supply engineering and CAD.

FEATURES

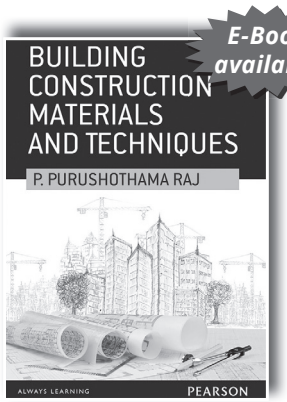
- Quality and standard of Materials along with cost effectiveness.
- Modern field procedures for surveying such as Total Station, GPS and digital levels.
- Building services like air conditioning, fire protection systems, lifts, escalators etc. and also repair and maintenance of structures.
- A chapter on CAD highlighting its importance in civil engineering.

CONTENTS

1. Materials for Construction
2. Building Construction
3. Basic Surveying
4. Other Major Topics in Civil Engineering

ABOUT THE AUTHOR

Satheesh Gopi has over 19 years of experience as a hydrographer and over five years of experience as a civil engineer and is currently the deputy director in the Hydrographic Survey Wing of the Kerala Port Department.



ISBN: 9789332544796

Building Construction Materials and Techniques

P. Purushothama Raj

624 | © **2016**

Web Supplements

ABOUT THE BOOK

Building construction materials and techniques is a subject offered to the students of civil engineering in their second year. This book is written to cover the subject in universities where it is offered as two different subjects as well as universities where it is offered as a combined single subject at the undergraduate level.
Of the 32 chapters in this book, 19 are dedicated to building construction while the remaining 13 focus on building materials. Each chapter is supplemented with numerous self-explanatory illustrations for easy comprehension.

FEATURES

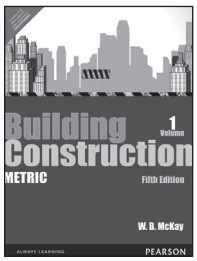
- Lucid coverage of various building materials.
- Elaborate coverage of concrete and precast concrete units.
- Adequate detailing on masonry construction.
- Highly illustrated with line diagrams, cash-flow diagrams, bar diagrams, line graphs to make the book interactive and easy to understand.

CONTENTS

ABOUT THE AUTHOR

P. Purushothama Raj was Former Director, Adhiparasakthi Engineering College. He has over 30 years of teaching experience and has published journals in several national and international journals.

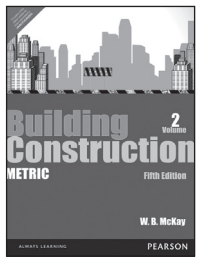
➦ **EXCLUSIVE TO MEHUL BOOKS**



Building Construction, Metric Volume-1, 5/e

W. B. Mc Kay

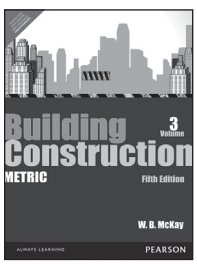
ISBN: 9789332508231
Pages: 178



Building Construction, Metric Volume-2, 4/e

W. B. Mc Kay

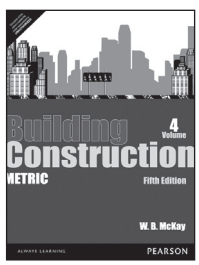
ISBN: 9789332509344
Pages: 152



Building Construction, Metric Volume-3, 5/e

W. B. Mc Kay

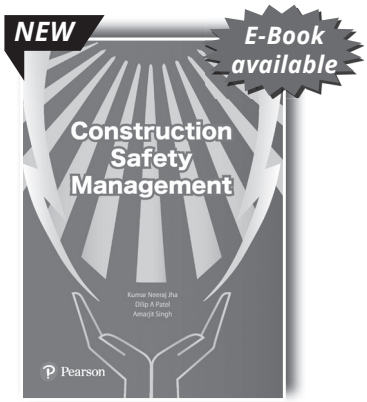
ISBN: 9789332508248
Pages: 172



Building Construction, Metric Volume-4, 4/e

W. B. Mc Kay

ISBN: 9789332508255
Pages: 283



ISBN: 9789356060449

Construction Safety Management, 1e

Kumar Neeraj Jha | Dilip A. Patel | Amarjit Singh

448 | © 2022

ABOUT THE BOOK

The subject of construction safety is so vast that it takes everything from an enlightened management approach to good supervisors, trained workers, good technology, and a sincere dedication to safety. Indeed, there is no other way to roll back the 22,000 deaths and 74 lakh injuries a year on Indian construction projects that cost the country ₹117,000 crores a year, which is too many lives and too much money to throw away. Thus, a new safety culture is necessary that gives paramount importance to safety. This book on Construction safety management is designed to help construction safety professionals, as well as serve as a textbook for students learning construction safety management.

FEATURES

- Delves into essential topics such as measuring and reporting accidents, and their investigation and causes.
- Elaborates on identifying hazards, evaluating risks, implementing effective safety policies, and creating appropriate budgets.
- Discusses safety acts and regulations, and the responsibilities of stakeholders in ensuring zero accidents.

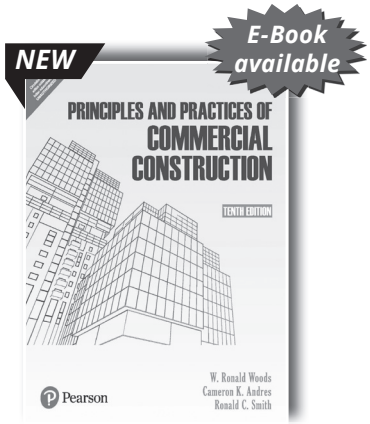
CONTENTS

ABOUT THE AUTHOR

Kumar Neeraj Jha, Professor, Department of Civil Engineering, Indian Institute of Technology Delhi, India

Dilip A. Patel, Associate Professor, Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, India

Amarjit Singh, Professor, Department of Civil and Environmental Engineering, University of Hawai'i at Manoa, USA



ISBN: 9789390168293

Principles and Practices of Commercial Construction, 10/e

Cameron K. Andres | Ronald C. Smith | W. Ronald Woods

564 | © 2022

ABOUT THE BOOK

Principles and Practices of Commercial Construction provides a practical, well-rounded approach to modern construction principles and practices and teaches students how to apply design theory to the construction process. Its flexible organization gives instructors the option of teaching each chapter on a standalone basis in a range of construction, architecture, and engineering courses.

The 10th edition expands its discussion of practical applications in structural design projects and adds practice opportunities preparing students for licensing exams.

FEATURES

- The text contextualizes each phase of the construction process through well-organized coverage of tasks ranging from site evaluation and layout, to interior design and building finishes.
- Basic structural framing materials such as wood, steel, and concrete are discussed in detail to emphasize their requirements, strengths, and limitations.
- Illustrations have been updated throughout the text to reflect changes in construction equipment and to illuminate current construction practices.
- Hundreds of chapter ending review questions reinforce concepts and provide extensive practice.
- Several chapters now incorporate new accepted practices or building code influences, with a continued emphasis on sustainable ("green") building.

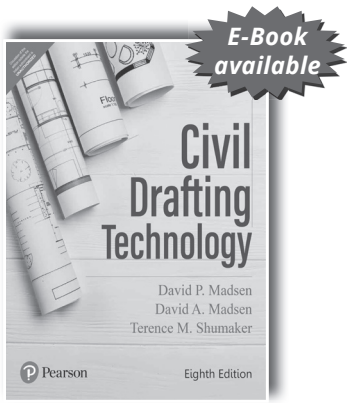
CONTENTS

ABOUT THE AUTHOR

Cameron K. Andres graduated from the University of Manitoba (1966) with a B Sc in Civil Engineering and then worked as a structural design engineer in Western Canada for nine years (1966 to 1975).

Ronald C. Smith

W. Ronald Woods, University of North Florida.



ISBN: 9789353948108

Civil Drafting Technology, 8e

David P Madsen | Terence M Shumaker

528 | © 2020

ABOUT THE BOOK

This text provides complete coverage of the design and drafting principles and practice used in the civil drafting field, and a working knowledge of the basic topics of mapping-in a workbook format. Created with input from civil engineering industry professionals and educators and content-tested in the classroom, Civil Drafting Technology is a unique, comprehensive guide to civil drafting in a clear workbook approach. Designed with the goal of providing a foundation of work done by civil engineering companies and a broad education in the civil drafting field, the book acquaints students with the civil drafting discipline, mapping, computer-aided design and drafting (CADD), surveying, locations, distances, angles, directions, contour lines, site plans, horizontal alignments, profiles, earthwork, detail drawings, and geographic information system (GIS).

FEATURES

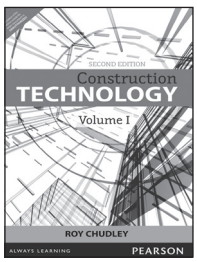
- A unique, broad, highly useful range of content not found in other texts.
- Motivating, easy-to-read and understand, and supported with quality illustrations.
- Presents CADD content and applications throughout.
- Reinforces learning using examples and by reviewing and applying chapter content.

CONTENTS

ABOUT THE AUTHOR

David P. Madsen is the president of Engineering Drafting & Design, Inc. and the vice president of Madsen Designs Inc. (www.madsendesigns.com). He provides drafting and design consultation and training for all disciplines, he has been a professional design drafter since 1996, and he has extensive experience in a variety of drafting, design, and engineering disciplines.

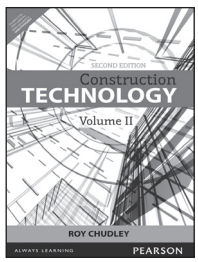
CONSTRUCTION TECHNOLOGY EXCLUSIVE TO MEHUL BOOK



Construction Technology - Volume-1, 2/e

Roy Chudley

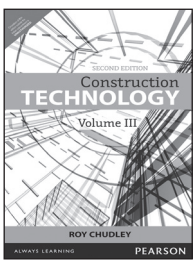
ISBN: 9789332542051
Pages: 264



Construction Technology - Volume-2, 2/e

Roy Chudley

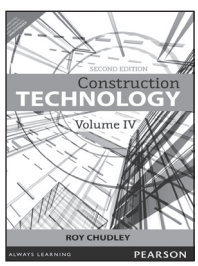
ISBN: 9789332542068
Pages: 248



Construction Technology - Volume-3, 2/e

Roy Chudley

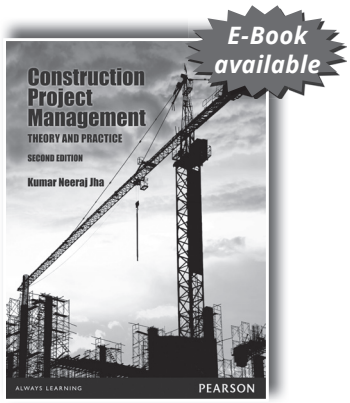
ISBN: 9789332542075
Pages: 256



Construction Technology - Volume-4, 2/e

Roy Chudley

ISBN: 9789332542082
Pages: 302



ISBN: 9789332542013

Construction Project Management Theory and Practices, 2/e

Best Seller

Kumar Neeraj Jha

904 | © 2015

Web Supplements

ABOUT THE BOOK

The revised second edition of ***Construction Project Management*** discusses the various facets of construction project management with a special emphasis on the fundamental concepts. The major principles of project management are explained with the help of real-life case studies. Simple examples are used to facilitate the better understanding of basic concepts before complex problems are discussed.

FEATURES

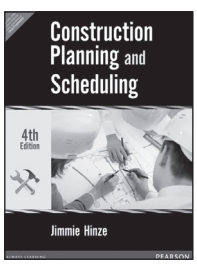
- Computer applications (Primavera and MS Project) are used to explain planning, scheduling, resource leveling, monitoring and reporting.
- Line diagrams, cash-flow diagrams, bar diagrams and line graphs make the book interactive and easy to understand.
- Real-life examples from the construction sites of the Delhi Metro, the Delhi International Airport construction, etc.
- Case studies on the preparation of documents for ISO 9001:2000, construction disputes, accidents in the construction industry, and preparation of estimates for live projects.
- Additional solved problems in PERT and CPM (NEW).
- Introduction to earthworks and concreting equipment (NEW).
- Chapters on Linear programming and Transportation and Transshipment and Assignment problems (NEW).

CONTENTS

ABOUT THE AUTHOR

Kumar Neeraj Jha, is Professor of civil engineering at Indian Institute of Technology, Delhi.

➦ ALSO AVAILABLE...



Construction Planning and Scheduling, 4/e

Jimmie Hinze

ISBN: 9789332505735
Pages: 264

ISBN: 9789353436551

Concrete Technology, 2/e

A M. Neville | J.J. Brooks

466 | © 2019

ABOUT THE BOOK

The classic textbook and reference guide to concrete is updated to include the latest standards and developments. This book gives students a thorough understanding of all aspects of concrete technology from ?rst principles. An excellent coursebook for all students of Civil Engineering, Structural Engineering and Building at degree or diploma level, Concrete Technology will also be a valuable reference book for practising engineers in the field.

FEATURES

- New sections on: fillers in the cementitious material waterproofing and anti-bacterial admixtures recycled concrete aggregate self-consolidating concrete
- It covers concrete ingredients, properties and behaviour in the ?nished structure with reference to national standards and recognised testing methods.
- Examples and problems are given throughout to emphasise the important aspects of each chapter.

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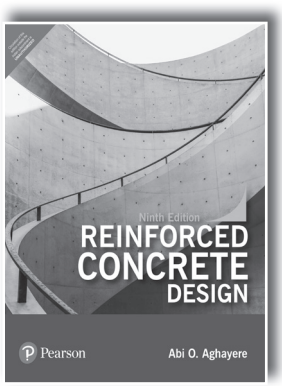
ABOUT THE AUTHOR(S)

A. M. Neville, Senior Lecturer in Civil Engineering Materials, University of Leeds

J.J. Brooks, Civil Engineering Consultant, Vice-President of the Royal Academy of Engineering, formerly Principal of the University of Dundee

Reinforced Concrete Design, 9/e



Abi O Aghayere

440 | © **2019**

ISBN: 9789353438739

ABOUT THE BOOK

Reinforced Concrete Design integrates current building and material codes with realistic examples to give readers a practical understanding of this field and the work of its engineers. Using a step-by-step solution format, the text takes a fundamental, active-learning approach to analyzing the design, strength, and behavior of reinforced concrete members and simple reinforced concrete structural systems. Content throughout the 9th edition conforms to the latest version of ACI-318 Code. It expands discussion of several common design elements and practice issues, and includes more end-of-chapter problems reflecting real-world design projects.

FEATURES

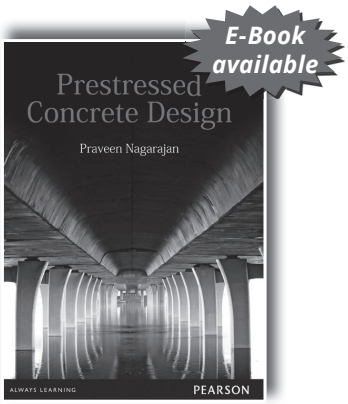
- Focus on the latest standards in concrete design and practice.
- Practical, real-world applications.
- Preparation for engineering work.

CONTENTS

1. Materials and Mechanics of Bending, Concrete Slab Systems and Gravity Load Distribution in Concrete Slab Systems
2. Rectangular Reinforced Concrete Beams and Slabs: Tension Steel Only, Slabs-on-Grade
3. Reinforced Concrete Beams: T-Beams and Doubly Reinforced Beams
4. Shear and Torsion in Beams, and Corbels and Brackets
5. Development, Splices, and Simple Bar Cut-offs, Structural Integrity Reinforcement
6. Continuous Construction Design Considerations
7. Serviceability: Deflections, Cracking, and Floor Vibrations
8. Structural Walls — Retaining Walls, Basement Walls, Bearing Walls, and Shear Walls
9. Columns: Axial Load plus Bending, Biaxial Bending, and Slender Columns
10. Foundations: Spread Footings, Strip Footings, Combined Footings, Eccentrically Loaded Footings, Strap Footings
11. Prestressed Concrete Fundamentals
12. Concrete Formwork
13. Detailing Reinforced Concrete Structures
14. Practical Considerations in the Design of Reinforced Concrete Buildings

ABOUT THE AUTHOR

Abi Aghayere is a professor of structural engineering in the Department of Civil, Architectural, and Environmental Engineering at Drexel University in Philadelphia and has more than 20 years design experience in the structural engineering consulting field.



ISBN: 9789332513754

Prestressed Concrete Design

Praveen Nagarajan

350 | © **2013**

ABOUT THE BOOK

This book is suited for a first course in ***prestressed concrete design*** offered to senior undergraduate students in civil engineering and postgraduate students in structural engineering. The book focuses on the behaviour of the prestressed concrete structural elements, with emphasis on clarity and precision in its discussions. Carefully chosen worked examples are included to delineate the design aspects while pointed chapter-end questions enable effortless recapitulation of the subject. This book, while being useful to both the students and teachers, will also serve as an invaluable reference for practising engineers.

FEATURES

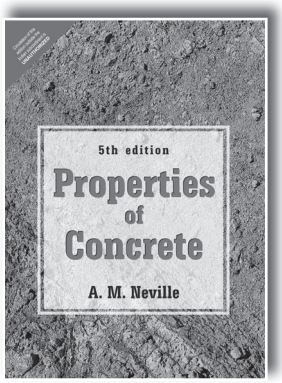
- The code provisions in IS: 1343 are critically analyzed and articulated.
- Design methods for torsion and the strut-and-tie method for bursting forces in anchorage zones are elucidated.
- Design of special structures such as pipes, water tanks and composite beams are unravelled.
- A step-by-step approach of problem-solving is adopted.

CONTENTS

ABOUT THE AUTHOR

Prof Praveen Nagarajan, is Assistant Professor, Department of civil engineering at National Institute of Technology, Calicut. He has published his papers in several national and international journals. He has over 10 years of teaching experience.

Properties of Concrete, 5/e



A. M. Neville

872 | © **2012**

ISBN: 9788131791073

Best Seller

ABOUT THE BOOK

Since its first publication in 1963, Properties of Concrete has been internationally acclaimed as the definitive work of reference on the subject for both the professional and the student engineer. The book has been translated into 12 languages and has sold well over half a million copies.

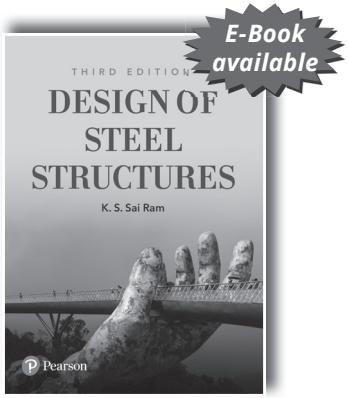
FEATURES

- New material includes such topics as self-compacting (self-consolidating) concrete, recycled concrete aggregate, thaumasite sulfate attack, compactability test, and delayed ettringite formation.
- Standards, both American (ASTM) and British/European updated to 2010 are used.
- Both SI and American (Imperial) units are used throughout.
- Includes 1500 full references to the world's literature on concrete and its constituents.
- An extensive subject index containing over 6000 entries provides excellent ease of reference.

CONTENTS

ABOUT THE AUTHOR

Adam Neville is a renowned international authority on concrete and author or co-author of nine other books, the latest of which are Neville on Concrete and Concrete: Neville's Insights and Issues, as well as over 250 research and technical papers.



ISBN: 9789353945213

Design of Steel Structures, 3e

K. S. Sai Ram

624 | © 2020

Web Supplements

ABOUT THE BOOK

This book on the design of steel structures uses the limit state method and follows the latest BIS code. With a perfect mix of theory and relevant applications, Design of Steel Structures discusses the most recent design methodologies in the subject, thus making it an excellent offering for students and practising engineers.

FEATURES

The text has been updated as per latest IS codes A single chapter on connections is presented with the inclusion of End plate connection, Fin plate connection and Extended end plate connections which became popular in recent years Inclusion of multi-storey steel buildings with two new examples, on muti-storey steel buildings and Industrial steel building Coverage of Truss girder bridges.

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ABOUT THE AUTHOR

Dr K. S. Sai Ram was graduated in Civil Engineering from the College of Engineering, Andhra University, Visakhapatnam, in the year 1983. After working for a few months with Unitech Consultants Pvt. Ltd., he joined IIT Bombay and obtained his M.Tech. degree in Aerospace Structures. In 1986, he joined as a lecturer in the Department of Civil Engineering, R. V. R. & J. C. College of Engineering, Guntur, where he is currently working as a Professor. He obtained his Ph.D. in the year 1992 from IIT Kharagpur in the field of Fibre Reinforced Plastic Composite Materials. Dr Sai Ram has published twenty research papers in international/national journals and presented fifteen research papers in international/national conferences. He has guided three candidates towards their Ph.D. degrees and has also supervised twenty one M.Tech. dissertations. He has been teaching the design of steel structures for the last 30 years to undergraduate and postgraduate students of Civil Engineering

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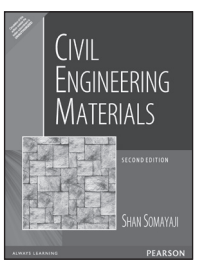

Civil Engineering Materials, 2/e

Shan Somayaji

ISBN: 9788131766316
Pages: 496

Web Supplements

ISBN: 9789332549760

Introduction to Environmental Engineering and Science, 3/e

Best Seller

Gilbert M. Masters | Wendell P. Ela

720 | © 2015

ABOUT THE BOOK

Balanced coverage of all the major categories of environmental pollution, with coverage of current topics such as climate change and ozone depletion, risk assessment, indoor air quality, source-reduction and recycling, and groundwater contamination.

FEATURES

- Risk Assessment (Chapter 4) - separated from hazardous substance legislation and is complete chapter in itself.
- Explores urgent environmental issues that have become the focus of much of the environmental attention in recent years.
  - Global Climate Change
  - Risk Assessment
  - Stratospheric Ozone Depletion
  - Greenhouse effect
  - Indoor air quality
  - Groundwater contamination
  - Acid Deposition
  - Hazardous Waste
- Numerous examples of each quantitative concept - Worked examples in each quantitative section.
- Numerous problems at the end of each chapter.
- Chapter covering Solid Waste Management and Resource Recovery - This chapter focuses on pollution prevention and product stewardship.
- Expanded coverage of water resources and Groundwater remediation - including challenges posed by subsurface contamination of nonaqueous-phase liquids.
- Covers the treatment of hazardous wastes and descriptions of the key pieces of environmental legislation that regulate hazardous substances.

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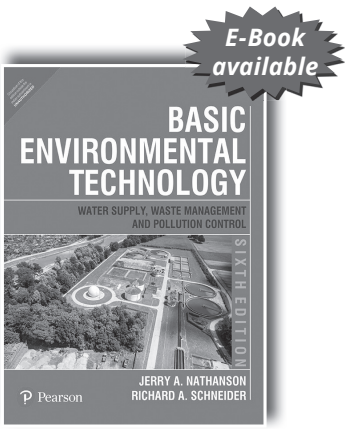
ABOUT THE AUTHORS

Gilbert M. Masters, Stanford University
Wendell P. Ela, University of Arizona



ISBN: 9789332575134

Basic Environmental Technology, 6/e

Jerry A Nathanson | Richard A Schneider

456 | © 2016

ABOUT THE BOOK

For introductory civil/construction technology program courses in environmental technology, water supply and pollution control, environmental quality control, environmental and sanitary design, and water/wastewater technology.

The clear, up-to-date, practical, visual, application-focused introduction to modern environmental technology.

Now fully updated, ***Basic Environmental Technology, Sixth Edition*** emphasizes applications while presenting fundamental concepts in clear, simple language. It covers a broad range of environmental topics clearly and thoroughly, giving students a solid foundation for further study and workplace success. This edition adds new coverage of environmental sustainability, integrated water management, low impact development, green building design, advanced water purification, dual water systems, new pipeline materials, hydraulic fracturing, constructed wetlands, single stream municipal solid waste recycling, plasma gasification of waste, updated EPA standards, and more. Hundreds of clear diagrams and photographs illuminate key concepts; practice problems and review questions offer students ample opportunity to deepen their mastery. Math is applied at a basic level, and all computations are fully explained with example problems; both U.S. and metric units are used. Students with less academic experience will also appreciate this text's review of basic math, and its basic primers on biology, chemistry, geology, hydrology, and hydraulics.

FEATURES

- **Fully addresses all facets of environmental technology related to water supply, waste management, and pollution control**—preparing students to enter any organization involved with environmental technology.
- **Teaches through real-world applications**—linking concepts to real-world issues that will be relevant to students.
- **NEW! Discusses environmental sustainability, integrated water management, low impact development, and green building design throughout the book**—ensuring that students understand the field's most significant trends and opportunities.
- **NEW! Covers many significant new topics and trends, including dual water systems, new pipeline materials, environmental impacts of hydraulic fracturing (fracking), constructed wetlands, single stream municipal solid waste recycling, and plasma gasification of solid and hazardous waste**—preparing students to participate in cutting-edge projects for many years to come.
- **NEW! Contains expanded discussions of environmental education, certification, and employment**—giving students up-to-date information and guidance for finding jobs in the field.
- **NEW! Introduces LEED green building project certification**—showing students how to earn the green building industry's most valuable credentials.

CONTENTS

ABOUT THE AUTHOR(S)

Jerry A. Nathanson M.S.,P.E., Professor Emeritus, Union County College, Cranford, NJ
Richard A. Schneider M.S.,P.E., Madison Area Technical College

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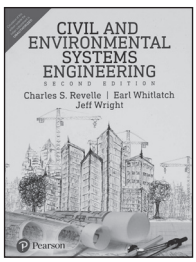
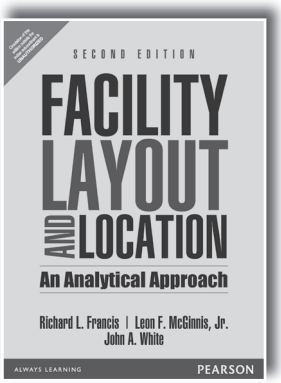


Civil and Environmental Systems Engineering, 2/e

Charles S. Revelle

ISBN: 9789332575752
Pages: 520



ISBN: 9789332551787

Facility Layout and Location: An Analytical Approach, 2/e

Richard L. Francis | Lenn F. McGinnis Jr. | John A. White

608 | © 2015

ABOUT THE BOOK

A comprehensive introduction to quantitative methods for facility layout and location.

FEATURES

- Treats problems of facility layout and location together and views them a "layout problem in the large."
- Introduces the field's issues and literature, along with basic tools and methodologies.
- Contains basic design and layout approaches and problem definitions.
- Contains extensive figures and tables, and numerical examples.

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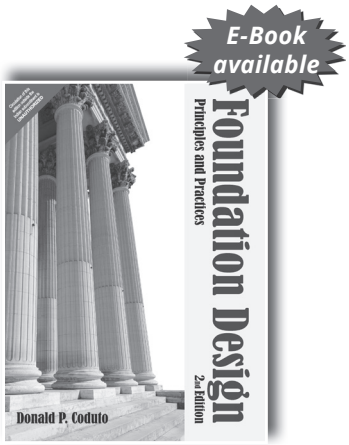
ABOUT THE AUTHOR(S)

Richard L. Francis, University of Florida
John A. White, Georgia Institute of Technology



ISBN: 9789332535008

Foundation Design: Principles and Practices, 2/e

Donald P. Coduto

888 | © 2014

ABOUT THE BOOK

Covers the subject matter thoroughly and systematically, while being easy to read. Emphasizes a thorough understanding of concepts and terms before proceeding with analysis and design, and carefully integrates the principles of foundation engineering with their application to practical design problems.

FEATURES

- NEW - Expanded coverage of earth retaining structures—Features separate full chapters on cantilever walls and sheet pile walls.
- New A chapter on reliability-based design, reorganized chapters on deep foundations.
- NEW - Revised coverage of laterally loaded deep foundations.
- NEW - Expanded discussions of dynamic methods of deep foundation analysis.
- A multidisciplinary approach—Integrates geotechnical, structural, and construction aspects of foundation engineering.
- A strong presentation of basic principles and the underlying assumptions.
- Practical solutions to real design problems.
- Frequent references to uncertainties and reliability issues.
- Coverage of both geotechnical and structural issues.
- Extensive use of example problems.
- Questions and Practice Problems—Includes numerical problem solving, definitions, and short essay questions.
- Comprehensive problems at the end of each chapter.

NEW TO THIS EDITION

- Expanded coverage of earth retaining structures—Features separate full chapters on cantilever walls and sheet pile walls.
- A chapter on reliability-based design.
- Reorganized chapters on deep foundations.
- Revised coverage of laterally loaded deep foundations.
- Expanded discussions of dynamic methods of deep foundation analysis.
- More emphasis on the differences between strength requirements and serviceability requirements.

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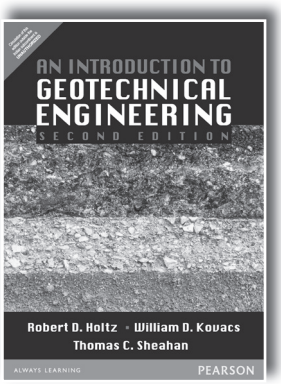
ABOUT THE AUTHOR

Donald P. Coduto, Professor of Civil Engineering, California State Polytechnic University, Pomona

An Introduction to Geotechnical Engineering, 2/e



Robert D. Holtz | William D. Kovacs | Thomas C. Sheahan

864 | © 2013

ISBN: 9789332507616

ABOUT THE BOOK

An Introduction to Geotechnical Engineering 2/e, provides a descriptive, elementary introduction to "geotechnical engineering" with applications to civil engineering practice. It focuses on the engineering classification, behavior, and properties of soils necessary for the design and construction of foundations and earth structures. It includes chapters on Geology, Landforms, and the Origin of Geomaterials. The book has been updated to include many new useful engineering property correlations, as well as units on both SI and customary engineering. It also covers an introduction to vibratory and dynamic compaction, the method of fragments, the Schmertmann procedure for determining field compressibility, secondary compresson, liquefaction, and an extensive use of the stress path method.

FEATURES

- Focuses on the engineering classification, behavior, and properties of soils necessary for the design and construction of foundations and earth structures.
- Introduces vibratory and dynamic compaction, the method of fragments, the Schmertmann procedure for determining field compressibility, secondary compression, liquefaction, and an extensive use of the stress path method.

CONTENTS

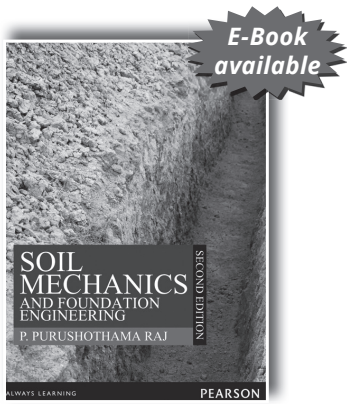
1. Introduction to Geotechnical Engineering
2. Index and Classification Properties of Soils
3. Geology, Landforms, and the Origin of Geo-Materials
4. Clay Minerals, Soil and Rock Structures, and Rock Classification
5. Compaction and Stabilization of Soils
6. Hydrostatic Water in Soils and Rocks
7. Fluid Flow in Soils and Rock
8. Compressibility of Soil and Rock
9. Time Rate of Consolidation
10. Stress Distribution and Settlement Analysis
11. The Mohr Circle, Failure Theories, and Strength Testing of Soil And Rocks
12. An Introduction to Shear Strength of Soils and Rock
13. Advanced Topics in Shear Strength of Soils and Rocks

ABOUT THE AUTHOR(S)

Bob Holtz, PhD, PE, D.GE, has degrees from Minnesota and Northwestern, and he attended the Special Program in Soil Mechanics at Harvard under Professor A. Casagrande. Before coming to the UW in 1988, he was on the faculty at Purdue and Cal State-Sacramento. He has worked for the California Dept. of Water Resources, Swedish Geotechnical Institute, NRC-Canada, and as a consulting engineer in Chicago, Paris, and Milano.

William D. Kovacs, F. ASCE, Professor of Civil and Environmental Engineering Professor and former Chairman of the Department of Civil and Environmental Engineering from 1984 to 1990

Thomas C. Sheahan is a Professor and the Senior Associate Dean for Academic Affairs in the Department of Civil and Environmental Engineering at Northeastern University.



ISBN: 9788131790816

Soil Mechanics and Foundation Engineering, 2/e

P. Purushothama Raj

928 | © **2013**

ABOUT THE BOOK

The principles of soil mechanics and foundation engineering are dealt with in an elegant, yet simplified, manner in this text. It presents all the material required for a firm background in the subject, reinforcing theoretical aspects with sound practical applications.

The study of soil behavior is made lucid through precise treatment of the factors that influence it.

FEATURES

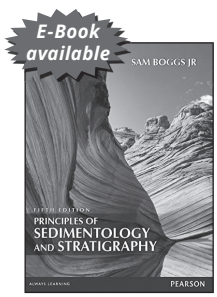
- The measurement of soil properties is dealt with the conventions of the Bureau of Indian Standards. This included the methods of data collection, computation and presentation of results and limitations.
- Design of shallow foundations, pile foundations, drilled piers and caissons.
- Discusses the latest techniques of ground investigation and soil improvement.

CONTENTS

ABOUT THE AUTHOR

Dr. P Purushothama Raj is Principal, Sri Aravindar Engineering College, Villupuram.

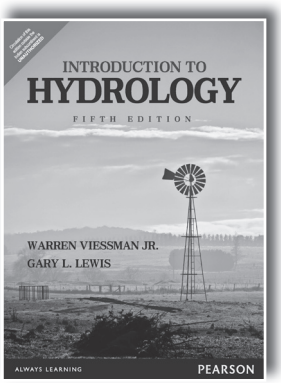
➦ ALSO AVAILABLE...



Principles of Sedimentology and Stratigraphy, 5/e

Sam Boggs Jr.

ISBN: 9789332570955
Pages: 568



ISBN: 9789332555297

Introduction to Hydrology, 5/e

Warren Viessman Jr. | **Gary L. Lewis**

624 | © **2015**

ABOUT THE BOOK

For students who expect to become involved in programs that are concerned with the development, management and protection of water resources.

The Fifth Edition of ***Introduction to Hydrology*** has been redesigned to better acquaint future water engineers, scientists and managers with the basic elements of the hydrologic cycle. Its focus is on presenting the principles of hydrology in the context of their application to real-world problems. The book identifies data sources, introduces statistical analyses in the context of hydrologic problem-solving, covers the components of the hydrologic budget, discusses hydrograph analysis and routing, and introduces groundwater hydrology, urban hydrology, hydrologic models and hydrologic design. Many solved examples and problems serve to amplify the concepts presented in the text. Computer applications are discussed and appropriate Web addresses are provided.

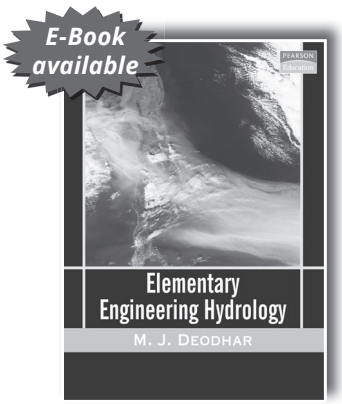
FEATURES

- NEW - Topical organization—Covers underlying principles of hydrology in chapters 1 - 10 while chapters 11 - 13 cover application of these principles to practical problems in the field.
- Provides logical course development and basis for advanced studies in hydrology.
- NEW - Comprehensive coverage.
- Covers all aspects of the hydrologic cycle, and the manner in which they may be modified to deal with floods, droughts, potable water supply and urban drainage. Chapters 1, 4-8, and 10 cover the key components of the hydrologic cycle and chapters 11 - 13 and section 10.6 cover measures that can be taken to develop and control water.
- Numerous solved examples—Using both English and metric units.
- Enhances student comprehension and aids in homework and test preparation.
- Presentation of hydrologic models and modeling.
- Provides practice-oriented experiences for students and demonstrates how the basic hydrologic processes can be incorporated into engineering designs and water resources management processes.

CONTENTS

ABOUT THE AUTHOR(S)

Warren Viessman Jr., University of Florida
Gary L. Lewis, Consulting Engineer



ISBN: 9788131708057

Elementary Engineering Hydrology

M. J. Deodhar

408 | © 2009

Web Supplements

ABOUT THE BOOK

Elementary Engineering Hydrology is a textbook for undergraduate and diploma students of civil engineering. It provides a comprehensive coverage of all the essential aspects of hydrology. To make it easy for students to grasp the concepts, all important topics have been divided into sub-topics, lending clarity to the subject matter. The text is interspersed with numerous figures and tables, and a wide range of solved problems to illustrate the underlying concepts and techniques effectively. Simple and comprehensible for beginners in the course, this book also contains a host of additional information, by way of appendices, including India's National Water Policy, water resources of India and also a guide to using survey maps. These features of the book will make it an invaluable reference book for practicing engineers as well.

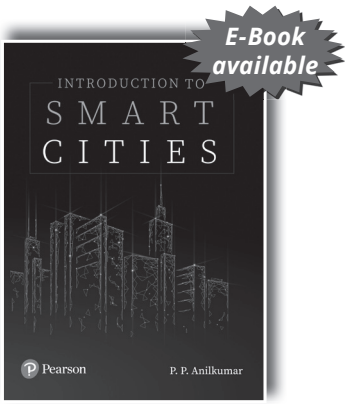
FEATURES

- Chapter organization based on the progression of the stages of the hydrologic cycle
- Inclusion of recent developments in the field of discharge measurement of high velocity fluids, and rainfall simulation to measure the infiltration rate
- Separate chapters devoted to evaporation and transpiration, precipitation, infiltration, discharge measurement, etc.
- An excellent selection of a wide range of solved problems, interspersed in the text as well as at the end of each chapter
- Review questions, objective-type questions and numerous practice problems to aid self-study

CONTENTS

ABOUT THE AUTHOR

Professor M. J. Deodhar graduated in 1957 and completed his postgraduate studies in Hydraulics and Dam Engineering in 1959 from the University of Pune. He started his career as Assistant Research Officer in Maharashtra Engineering Research Institute, Nasik, and later became Professor and Head of the Civil Engineering Department in the Government College of Engineering at Karad, Amaravati and Pune. He retired as Principal of K. K. Wagh College of Engineering, Nasik. He has been Visiting Professor and also Emeritus Fellow, AICTE, New Delhi. He has worked as technical expert for UPSC, MPSC, UP PSC and Himachal Pradesh PSC, and as Chairman, Board of Studies in Civil Engineering. He has also been a member of Faculty of Engineering and Technology and the Academic Council of universities in Maharashtra. He has published technical articles and also presented papers at the international conferences, the prominent being the International Association of Hydraulic Engineering and Research held at San Francisco and Beijing. He has also conducted and attended short-term courses on behalf of the Indian Society for Technical Education, New Delhi, and UNESCO. With over 50 years of research and teaching experience behind him, Professor Deodhar was awarded the 'best teacher' award and 'outstanding engineer' award by the Institution of Engineers, Nasik Local Centre. Presently, he is working as Technical Advisor for Coastal Power Consultants, Pune.



ISBN: 9789353439576

Introduction to Smart Cities, 1/e

Anil Kumar

400 | © 2019

ABOUT THE BOOK

In the domain of city planning, smart cities made perceivable differences in easing city life, adding to its quality while keeping its people connected, engaged and informed. This book aims to introduce the idea of 'Smart cities' comprehensively by covering the conceptual basis and the principles in practice systematically and sector-wise. Written lucidly, covering both possible new attempts and retrofitting options in turning smart, the book is an all in one handy volume for beginners to city enthusiasts to advanced learners.

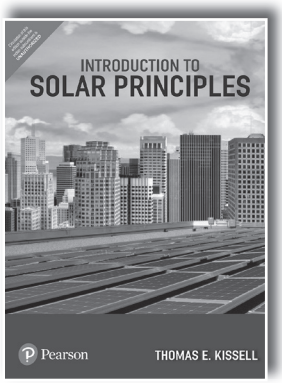
FEATURES

- Contains a concise story of cities and major innovations in city development.
- Chapters on Mobility, Energy, Governance, Water Supply, Waste Management, Economy, Buildings and Environment as core sectors of smart city transformation.
- Dedicated chapter on ICT.
- Chapters on International and Indian case studies cover potential interventions.
- Review Questions and Project Ideas added to test level of comprehension.

CONTENTS

ABOUT THE AUTHOR

Professor Department of Architecture and Planning National Institute of Technology Calicut.



ISBN: 9789332587038

Introduction to Solar Principles

Thomas E. Kissell

320 | © 2017

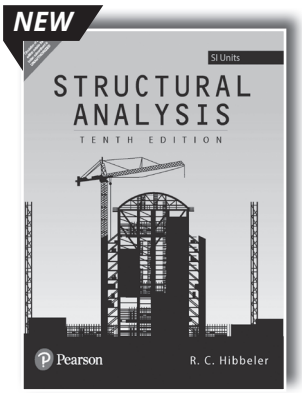
ABOUT THE BOOK

This book explains the basic principles of solar energy used to create electricity through photovoltaic (PV) cells or solar heating for hot water and residential and commercial heating systems. The book will help prepare students for green energy jobs such as selling, installing, troubleshooting and repair of solar energy systems.

FEATURES

- Overview of the chapter is at the beginning which will help students easily understand what to expect.
- Each chapter provides in depth pictures and diagrams showing students how to install and repair solar energy system.
- Provides detailed electrical information that is needed to understand electronic inverters and electrical circuits commonly found in solar energy equipment.
- Provides in depth detailed information about how photovoltaic (PV) cells are manufactured and how they are installed and connected into stand alone systems that charge batteries or how they are connected directly into the electrical grid system.

CONTENTS



ISBN: 9789354497841

Structural Analysis, 10e in SI Units

Hibbeler

744 | © **2022**

ABOUT THE BOOK

Structural Analysis, 10e in SI Units, presents the theory and applications of structural analysis as it applies to trusses, beams, and frames. Through its student-friendly, clear organization, the text emphasizes developing the ability to model and analyze a structure in preparation for professional practice. The text is designed to ensure students taking their first course in this subject understand some of the more important classical methods of structural analysis, in order to obtain a better understanding of how loads are transmitted through a structure, and how the structure will deform under load. The large number of problems covers realistic situations involving various levels of difficulty.

FEATURES

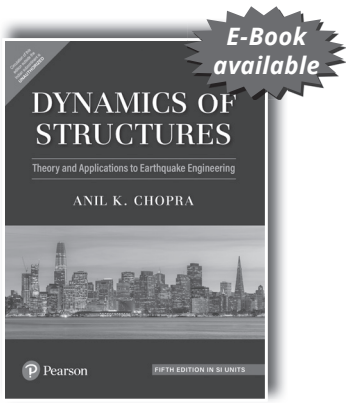
- The organization and approach of the text presents a structured method for introducing each new definition or concept, and makes the book a convenient resource for later reference and review.
- Procedures for Analysis is a unique feature that provides students with a logical and systematic method for applying theory and building problem-solving skills. The example problems are solved using this outlined method in order to clarify the steps needed for solution.
- NEW! Structural modeling is discussed throughout, especially as it applies to modeling a structure for a computer analysis.
- Photographs throughout the book demonstrate how principles of structural analysis apply to real-world situations and help students visualize difficult concepts.
- NEW! Preliminary problems offer simple applications of concepts and help students develop problem-solving skills before attempting to solve any of the standard problems that follow.

CONTENTS

ABOUT THE AUTHOR

R.C. Hibbeler graduated from the University of Illinois at Urbana - Champaign with a BS in Civil Engineering (majoring in Structures) and an MS in Nuclear Engineering. He obtained his PhD in Theoretical and Applied Mechanics from Northwestern University. Professor Hibbeler's professional experience includes postdoctoral work in reactor safety and analysis at Argonne National Laboratory, and structural and stress analysis work at Chicago Bridge and Iron along with Sargent and Lundy in Chicago. He has practiced engineering in Ohio, New York and Louisiana.

Professor Hibbeler currently teaches both civil and mechanical engineering courses at the University of Louisiana - Lafayette. In the past, he has taught at the University of Illinois at Urbana - Champaign, Youngstown State University, Illinois Institute of Technology, and Union College.



ISBN: 9789353945251

Dynamics of Structures, 5e

Anil K. Chopra

992 | © **2020**

Web Supplements

ABOUT THE BOOK

An expert on structural dynamics and earthquake engineering, Anil K. Chopra fills an important niche, explaining the material in a manner suitable for both students and professional engineers with his fifth edition, in SI units of Dynamics of Structures: Theory and Applications to Earthquake Engineering. No prior knowledge of structural dynamics is assumed, and the presentation is detailed and integrated enough to make the text suitable for self-study.

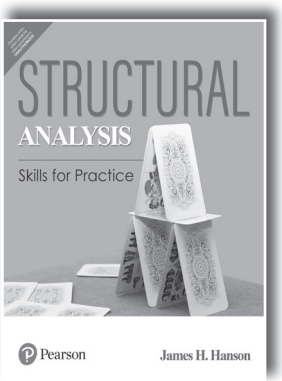
FEATURES

- A section on application of the inelastic design spectrum to structural design is included.
- Examples on dynamics of bridges and their earthquake response are included.
- The text incorporates three building codes and the Eurocode.
- The theory of dynamic response of structures is presented in a manner that emphasizes physical insight into the analytical procedures.

CONTENTS

ABOUT THE AUTHOR

Anil K. Chopra received his Bachelor of Science degree in Civil Engineering from Banaras Hindu University, India, in 1960, the Master of Science degree from the University of California, Berkeley, in 1963, and the Doctor of Philosophy degree, also from Berkeley, in 1966.



ISBN: 9789353947798

Structural Analysis: Skills for Practice

James Hanson

928 | © **2020**

Web Supplements

ABOUT THE BOOK

Structural Analysis: Skills for Practice encourages engineering students to develop their intuition and the habit of evaluating the reasonableness of structural analysis results. The author presents examples and homework problems that incorporate a consistent thought process structure-guess, calculate, and evaluate their results-helping students develop the metacognitive skill of thinking about their own thought process. Drawing upon the evaluation skills gathered from a six year project with experienced structural engineers, Hanson's Structural Analysis helps students learn skills to transition from novice to expert faster and become more competent in their careers.

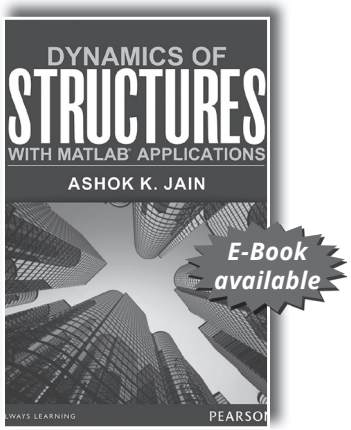
FEATURES

- Help students develop the skills of developing their intuition and evaluating result.
- Teach engineering content students will use as practioners.
- Student-friendly, readable approach to structural analysis content

CONTENTS

ABOUT THE AUTHOR

For over twenty years, **Dr. James Hanson** has blended his two greatest passions: engineering and teaching. His undergraduate and graduate degrees come from Cornell University where his engineering and teaching skills started developing. He further developed those skills as a structural engineer for a large chemical company and as an engineer officer in the US Army. As a result, he is a licensed professional engineer in New York and Indiana.



ISBN: 9789332558557

Dynamics of Structures with MATLAB® Applications

Dr. Ashok K. Jain

672 | © **2016**

ABOUT THE BOOK

The text is conceived as a textbook for senior-level and graduate courses in ***Dynamics of Structures***. It includes topics in the theory of structural dynamics, and applications of this theory to earthquake analysis, response, design, and evaluation of structures.

The text provides engineering students with an understanding of the dynamic response of structures and the analytical tools to determine such responses. This comprehensive text demonstrates how modern theories and solution techniques can be applied to a large variety of practical, real-world problems.

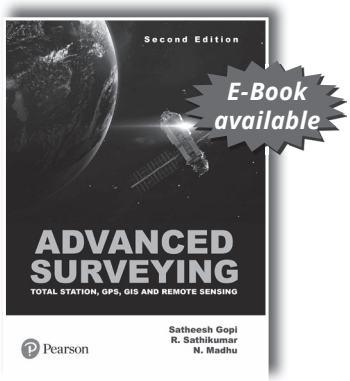
FEATURES

- Covers computation of dynamic wind load, Non-linear analysis parameters.
- Refers to Indian codes, ASCE-7, and Euro code 1998-Part-1.
- Illustrates the application of MATLAB through programmes developed using basic tools.
- Application of SAP 2000, ETABS programmes.

CONTENTS

ABOUT THE AUTHOR

Dr Ashok K. Jain is Professor of Civil Engineering at the Indian Institute of Technology, Roorkee. A recipient of several awards, he has been a research fellow at the University of Michigan; a visiting Professor at the McGill University, Montreal; Director, Malaviya National Institute of Technology, Jaipur; and Head of Civil Engineering Department, I.I.T. Roorkee.



ISBN: 9789352860722

Advanced Surveying: Total Station, GIS and Remote Sensing, 2/e

Satheesh Gopi | R. Sathikumar | N. Madhu

488 | © 2017

ABOUT THE BOOK

The revised edition has been enlarged and thoroughly updated to cover modern surveying. The use of electronic equipment and information technology with advanced automated systems has been emphasised on. Total Station, Global Positioning System (GPS), Remote Sensing and Geographical Information System (GIS) have all become an inextricable part of surveying excellently covered in the book.

FEATURES

- Comprehensive coverage on Total Station, GIS, GPS and Remote Sensing.
- Well drawn illustrations, black-and-white photographs and color plates that lend conceptual clarity to the subject.
- New and updated chapter on "Spatial Analysis".
- Total Station explained with principles, data acquisition and plotting.
- Remote Sensing explained with data acquisition and interpretation.
- Covers latest Indian Remote Sensing Satellites.

CONTENTS

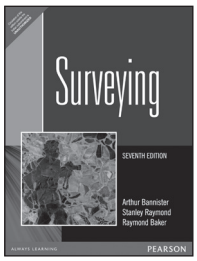
ABOUT THE AUTHORS

Satheesh Gopi has over 20 years experience as a hydrographer and is currently working as Marine Surveyor in the Hydrographic Survey Wing of the Kerala Port Department. He received his degree in civil engineering from the College of Engineering, Thiruvananthapuram and also holds a masters degree in information technology. He is the author of Global Positioning System – Principles and Applications. He was commissioned to supervise surveys with commercially available Total Stations in the late eighties and with GPS receivers in the early nineties. He has worked with Total Station and GPS ever since.

R. Sathikumar was former Professor (Civil) with the College of Engineering, Thiruvananthapuram. He received his post-graduate degree, in Transportation Engineering, from IIT Kanpur in 1989 and his Ph.D from IIT Roorkee in 1996.

N. Madhu was former Assistant Professor (Civil) with the College of Engineering, Thiruvananthapuram. He obtained his M.Tech in Traffic and Transportation Engineering from IIT Madras in 1991.

➦ **ALSO AVAILABLE...**

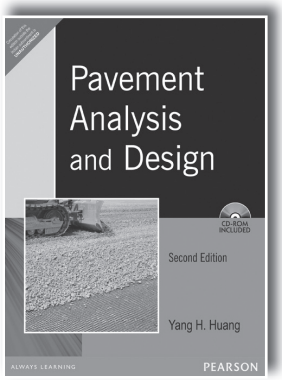


Surveying, 7/e

A. Bannister / Stanley Raymond / Raymond Baker

ISBN: 9788131700662
Pages: 512

PAVEMENT DESIGN



ISBN: 9788131721247

Pavement Analysis and Design, 2/e

Yang H. Huang

792 | © **2008**

Web Supplements

ABOUT THE BOOK

This up-to-date text covers both theoretical and practical aspects of pavement analysis and design. It includes some of the latest developments in the field, and some very useful computer softwares developed by the author with detailed instructions.

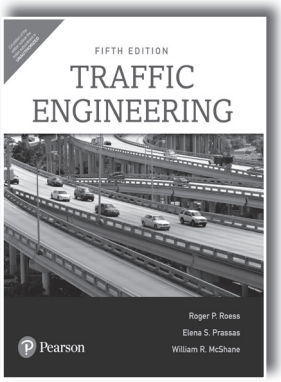
FEATURES

- NEW - KENPAVE Windows program: Based on the mechanistic-empirical method; written using Microsoft Visual Basic 6.0; combines the flexible and rigid pavements into a single package together with the addition of new input programs and computer graphics.
  - Demonstrates to students how theory can be put into practice, and gives them a better understanding of the pavement design process.
  - Serves as a useful tool for the structural design of raft foundations—an important subject in geotechnical engineering.
- **NEW - Revised material on the AASHTO overlay design method.**
  - Reflects the AASHTO design guide which was revised in 1993.
- **NEW- Added developments and information throughout, i.e.,** a new method based on the Mohr-Coulomb failure criterion; and new comparisons between KENLAYER and the latest Windows version of MICH-PAVE.
  - Keeps the book and students current, and broadens the scope of knowledge contained in both.
- **NEW - Three additional appendices: Superpave;** Pavement Management System; and Preview of 2002 Design Guide.
  - Provides students with the most current information available while new publications by the American Association of State Highway and Transportation Officials are being approved and implemented.

CONTENTS

ABOUT THE AUTHOR

Yang H. Huang, University of Kentucky



ISBN: 9789353434854

Traffic Engineering, 5/e

Roger P Roess | Elena S Prassas | William R McShane

800 | © 2019

ABOUT THE BOOK

Traffic Engineering, 5th Edition focuses on the key engineering skills required to practice traffic engineering. It presents both fundamental theory and a broad range of its applications to solve modern problems and gives students an understanding of and appreciation for planning, design, management, construction, operation, control, and system optimization. It also includes the latest in industry standards and criteria, new material and updates to existing material, and new homework problems.

FEATURES

- **New! Latest standards and criteria.**
- **New! Content on unsignalized intersections,** roundabouts, alternative intersections, interchanges, operation and analysis of facilities, and more.
- **Updated and extended content on signalized intersections,** signal design and timing, and signal hardware is included.
- **New! Supporting material on statistical analyses.**
- **New - More than half of the homework problems** for most chapters are new to this edition.
- **The text is organized into four major functional parts** and presented in an accessible format, giving students a clear and logical framework to learn the concepts.
- **Numerous sample problems and illustrations** demonstrate the procedures and methodologies as they are used in practice.
- **Important computer programs** demonstrate solutions throughout the text.

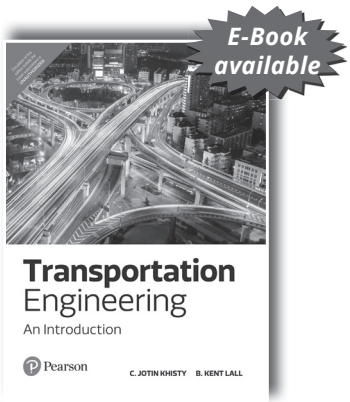
CONTENTS

ABOUT THE AUTHOR(S)

Dr. Roger P. Roess is Department Head in the Department of Civil Engineering at Polytechnic Institute of NYU.

Elena S. Prassas is an Associate Professor in the Department of Civil Engineering at Polytechnic Institute of NYU. She earned her Doctor of Philosophy and Master of Science from Polytechnic University, and her Bachelor of Arts from the State University of New York, Oneonta. She is a Member of TRB's Highway Capacity and Quality of Service Committee (HCQSC), the Chair of the HCQSC Signalized Intersection Subcommittee, and a Member of both the ITE and WTS.

William R. McShane is the Vice President of Operations and Dean of Engineering at Polytechnic University. He earned his B.S.E.E from Manhattan College and his M.S. and Ph.D. in Systems Engineering from Polytechnic University. His areas of interest include quality control, controls and simulation, and engineering economics.



ISBN: 9789332569706

Transportation Engineering: An Introduction, 3/e

C. Jotin Khisty | B. Kent Lall

840 | © 2017

ABOUT THE BOOK

Pearson brings to you the third edition of ***Transportation Engineering,*** which offers students and practitioners a detailed, current, and interdisciplinary introduction to transportation engineering and planning. This much praised and widely recommended text has been revered for its wide spectrum coverage encompassing both traditional principles—traffic engineering, transportation planning and non-traditional considerations transportation economics, land use, energy, public transport, transportation systems management.

FEATURES

- The text is built on ideas, concepts, and observations that students are likely to be most familiar with, e.g., roads, streets, highways, buses, bicyclists, pedestrians and so on.
- Organization of the book and individual chapters has been carefully planned for easy transition from one to another.
- Quantitative and policy-oriented topics are incorporated, each supported by numerous worked examples and problems of varying complexity.
- Appendix on Statistics for Transportation Engineers provided for easy reference.
- Examples and exercises that illustrate real-world problems and require creativity and critical thinking."

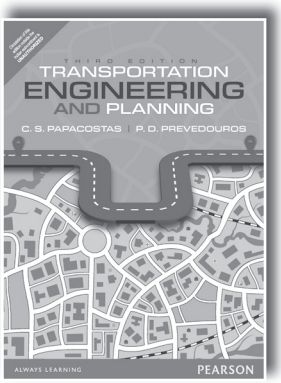
CONTENTS

1. Transportation as a System
2. Transportation Economics
3. The Land-Use/Transportation System
4. Vehicle and Human Characteristics
5. Traffic Flow Characteristics
6. Geometric Design of Highways
7. Highway Capacity
8. Intersection Control and Design
9. At-Grade Intersection Capacity and Level of Service
10. Public Passenger Transportation
11. Urban Transportation Planning
12. Local Area Traffic Management
13. Energy Issues Connected with Transportation
14. TSM Planning: Framework
15. Evaluation of Transportation Improvement
16. Transportation Safety

ABOUT THE AUTHORS

C. Jotin Khisty has been a Professor of civil engineering and the Director of the Transportation and Infrastructure program at the Illinois Institute of Technology, Chicago.
B. Kent Lall has been a Professor of civil engineering at Portland State University, Portland.

Transportation Engineering and Planning, 3/e



C. S. Papacostas | P. D. Prevedouros

704 | © 2015

ISBN: 9789332555150

ABOUT THE BOOK

For a course in transportation engineering in the Civil Engineering Department. This detailed, interdisciplinary introduction to transportation engineering serves as a comprehensive text as well as a frequently cited reference. It begins with the basic sciences, mathematics, and engineering mechanics, and gradually introduces new concepts concerning societal context, geometric design, human factors, traffic engineering, and simulation, transportation planning, evaluation.

FEATURES

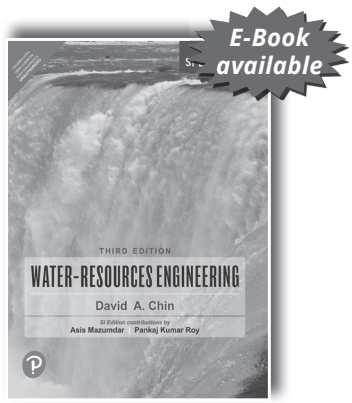
- NEW - Restructured--Organized in four main sections: DESIGN AND OPERATION (includes basic engineering principles, geometric design, human factors and traffic engineering); SYSTEMS (includes transportation modes, urban transportation, intelligent transportation systems [ITS], transportation planning and forecasting); IMPACTS (includes traffic impact studies, noise and pollution, and evaluation of transportation alternatives); and SUPPORTING ELEMENTS (such as economics, statistics, probability, queuing and software for traffic simulation and transportation analysis).
- NEW - Updated coverage on Transportation Modes.
- NEW - Updated coverage on Urban Systems--With extensive coverage of Intelligent Transportation Systems and the Quantification of Congestion.
- NEW - Expanded Capacity Analyses--Of bikeway, freeway, intersection, pedestrian and transit facilities based on HCM 2000.
- Coverage of Traffic Calming and basic Roundabouts.
- Extensive coverage of transportation software-(Ch. 15).
- NEW - Expanded coverage of Actuated Controllers--With numerous realistic case studies for Signal Design and Capacity Analysis.
- NEW - Updated Demand Modeling and Forecasting.
- NEW - Updated Traffic Impact Studies.
- Carefully chosen examples--Most accompanied by discussion and interpretations of results.
- Develops and illustrates concepts.
- Exercises--Cover a full range of difficulty.
- Gives students hands-on practice in applying concepts.

CONTENTS

ABOUT THE AUTHOR(S)

C.S. Papacostas, both of University of Hawaii, Manoa

P.D. Prevedouros, both of University of Hawaii, Manoa



ISBN: 9789353433819

Water-Resources Engineering, 3/e (SI Edition)

David A. Chin

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Web Supplements

ABOUT THE BOOK

Water-Resources Engineering provides comprehensive coverage of hydraulics, hydrology, and water-resources planning and management. Presented from first principles, the material is rigorous, relevant to the practice of water resources engineering, and reinforced by detailed presentations of design applications. The third edition has been completely SI Metricated to meet the requirements of the users.

FEATURES

- Detailed coverage of hydraulics, hydrology, and contaminant transport in a single text provides a holistic view of water-resources engineering.
- Design methods are state-of-the-art, preparing students for engineering practice
- Design protocols that are consistent with ASCE, WEF, and AWWA Manuals of Practice – Gives students crucial familiarity with the codes and design standards that guide most modern designs
- Coverage of the design of drainage channels and Coverage of the design of sanitary sewers have been completely rewritten and updated.

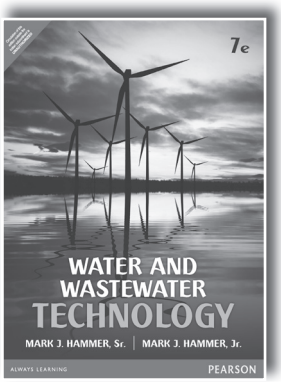
CONTENTS

1. Introduction
2. Fundamentals of Flow in Closed Conduits
3. Design of Water-Distribution Systems
4. Fundamentals of Flow in Open Channels
5. Design of Drainage Channels
6. Design of Sanitary Sewers
7. Design of Hydraulic Structures
8. Probability and Statistics in Water-Resources Engineering
9. Fundamentals of Surface-Water Hydrology I: Rainfall and Abstractions
10. Fundamentals of Surface-Water Hydrology II: Runoff
11. Design of Storm water-Collection Systems
12. Design of Stormwater-Management Systems
13. Estimation of Evapotranspiration
14. Fundamentals of Groundwater Hydrology I: Governing Equations
15. Fundamentals of Groundwater Hydrology II: Applications
16. Design of Groundwater Systems
17. Water-Resources Planning

ABOUT THE AUTHOR

David A. Chin SI Edition contributions by Asis Mazumdar Professor of Water Resources Engineering & Director School of Water Resources Engineering Jadavpur University, Kolkata Pankaj Kumar Roy Professor & Joint Director School of Water Resources Engineering Jadavpur University, Kolkata.

Water and Wastewater Technology, 7/e



ISBN: 9789332550056

Mark J. Hammer, Sr. | Mark J. Hammer, Jr.

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ABOUT THE BOOK

The new seventh edition of ***Water and Wastewater Technology*** continues its tradition of coverage water processing principles and modern management practices, but now integrates a new emphasis on sustainability throughout.

Comprehensive coverage of topics such as:

- Water processing
- Water distribution
- Wastewater collection
- Conventional and advanced wastewater treatment
- Sludge processing

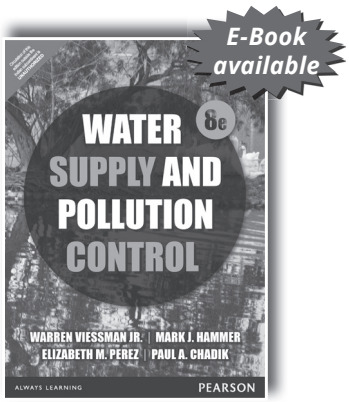
FEATURES

- Coverage of new technologies.
- Water supply and water sustainability woven throughout.
- Coverage of energy reduction opportunities, and other processes important to water sustainability.
- Extensive use of illustrations to explain concepts and demonstrate modern equipment and facilities.
- Extensive use of charts, diagrams, and tables to make the mathematics more accessible.

CONTENTS

ABOUT THE AUTHOR

Mark Hammer Sr., Emeritus Professor of Civil Engineering, is a writer of Environmental Engineering publications in the United States and Saudi Arabia. During his long tenure as a professor at the University of Nebraska-Lincoln, Dr. Hammer also served as the Director of the Environmental Protection Agency Grant in Water Quality Control. Professor Hammer has taught at the King Fahd and King Abdulaziz Universities in Saudi Arabia where he conducted environmental engineering research in addition to his teaching responsibilities. Mark J. Hammer Sr. is an independent consultant in Lincoln, Nebraska, **Mark J. Hammer Jr.,** is with HDR Engineering, Inc.



ISBN: 9789332549616

Water Supply and Pollution Control, 8/e

Warren Viessman Jr. | **Mark J. Hammer** | **Elizabeth M. Perez** | **Paul A. Chadik**

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ABOUT THE BOOK

The Eighth Edition of this bestselling text has been revised and modernized to meet the needs of today's environmental engineering students who will be engaged in the design and management of water and wastewater systems. It emphasizes the application of the scientific method to problems associated with the development, movement, and treatment of water and wastewater. Recognizing that all waters are potential sources of supply, the authors present treatment processes in the context of what they can do, rather than dividing them along clean water or waste water lines. An abundance of examples and homework problems amplify the concepts presented.

FEATURES

- The interconnectedness of all potential water sources is illustrated by the text's wide breadth of coverage – Water development, distribution, and use as well as water and wastewater development are all explored.
- Prominent coverage of monitoring drinking water for pathogens highlights this topic – an increasing concern as the security of drinking water becomes more critical.
- Expanded and updated material on indirect reuse of water for augmenting drinking water supplies gives prominence to this increasingly important component of water resources development.

CONTENTS

ABOUT THE AUTHORS

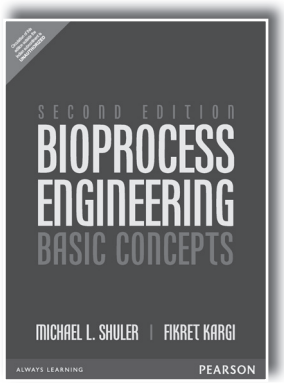
Warren Viessman, Jr. is Professor Emeritus with the Department of Environmental Engineering Sciences, College of Engineering University of Florida. He served as Associate Dean for Academic Programs from 1990 to 2003, and prior to that was Chairman of the Department of Environmental Engineering Sciences.

Mark L. Hammer is Professor Emeritus of civil engineering and is an author of environmental engineering publications in the United States and Saudi Arabia. During his long tenure as a professor at the University of Nebraska-Lincoln, Dr. Hammer also served as the Director of the Environmental Protection Agency Grant in Water Quality Control.

Elizabeth M. Perez has degrees in Environmental and Civil Engineering. Her specialties include hydrologic and hydraulic modeling, geographic information systems, ecological engineering, stormwater modeling, and watershed management.

Paul A. Chadik brings background of degrees in Chemical and Environmental Engineering and 23 years of teaching and research in water and wastewater treatment. He is a member of the faculty of the Department of Environmental Engineering Sciences at the University of Florida.

Chemical Engineering



ISBN: 9789332549371

Bioprocess Engineering: Basic Concepts, 2/e

Michael L. Shuler | Fikret Kargi

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ABOUT THE BOOK

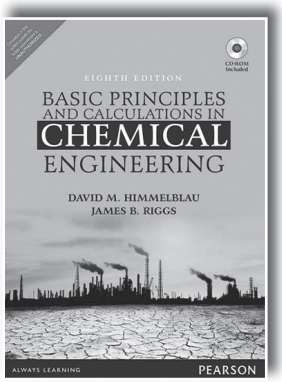
This is the definitive, up-to-the-minute guide to systems management for every IT professional responsible for maintaining stable, responsive IT production environments. Top IT system management expert Rich Schiesser illuminates both the theoretical and practical aspects of systems management, using methods and examples drawn from decades of professional experience in roles ranging from data center leadership to infrastructure design. Schiesser covers every systems management discipline, every type of IT environment, and all elements of success: technology, processes, and people. This edition adds detailed new coverage of the popular IT Infastructure Library, showing how ITIL's 10 processes align with the 12 processes Schiesser presents. Another new chapter addresses key issues related to ethics, legislation, and outsourcing. Additional new coverage ranges from managing wireless networks, VoIP, and "ultra-speed" Internet to strategic security and new approaches to facilities management

CONTENTS

ABOUT THE AUTHOR(S)

Dr. Michael L. Shuler is Professor in the School of Chemical Engineering, Cornell University. His areas of research include structured models, heterologous protein expression systems, cell culture analogs for pharmacokinetic models, in-vitro toxicology, plant-cell tissue culture, microbial functional genomics, and bioremediation.

Dr. Fikret Kargi is Professor of Environmental Engineering at Dokuz Eylul University in Ismir, Turkey. His current research includes bioprocessing of wastes for production of commercial products, development of novel technologies for biological treatment of problematic wastewaters, nutrient removal, and novel biofilm reactor development.



ISBN: 9789332549623

Basic Principles and Calculations in Chemical Engineering, 8/e

David M. Himmelblau | James B. Riggs

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ABOUT THE BOOK

Basic Principles and Calculations in Chemical Engineering, Eighth Edition goes far beyond traditional introductory chemical engineering topics, presenting applications that reflect the full scope of contemporary chemical, petroleum, and environmental engineering. Celebrating its fiftieth Anniversary as the field's leading practical introduction, it has been extensively updated and reorganized to cover today's principles and calculations more efficiently, and to present far more coverage of bioengineering, nanoengineering, and green engineering.

Offering a strong foundation of skills and knowledge for successful study and practice, it guides students through formulating and solving material and energy balance problems, as well as describing gases, liquids, and vapors. Throughout, the authors introduce efficient, consistent, student-friendly methods for solving problems, analyzing data, and gaining a conceptual, application-based understanding of modern chemical engineering processes. This edition's improvements include many new problems, examples, and homework assignments.

FEATURES

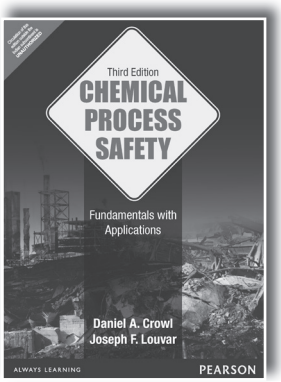
- Thoroughly covers material balances, gases, liquids, and energy balances.
- Contains new biotech and bioengineering problems throughout.
- Adds new examples and homework on nanotechnology, environmental engineering, and green engineering.
- All-new student projects chapter.
- Self-assessment tests, discussion problems, homework, and glossaries in each chapter.
- Power Points and instructor's solutions manual available for course use.

CONTENTS

ABOUT THE AUTHOR(S)

David M. Himmelblau was (until his death in April) the American Petrofina Foundation Centennial Professor in Chemical Engineering at the University of Texas, Austin. The author of sixteen books, his areas of research included the use of artificial neural networks for fault diagnosis and data rectification.

James B. Riggs is Professor in the Chemical Engineering Department at Texas Tech University, where he directs the Texas Tech Process Control and Optimization Consortium. His books include Chemical Process Control, Second Edition and An Introduction to Numerical Methods for Chemical Engineers, Second Edition.



ISBN: 9789332524057

Chemical Process Safety: Fundamentals with Applications, 3/e

Daniel A. Crowl | Joseph F. Louvar

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ABOUT THE BOOK

As chemical processes have grown more complex, so have the safety systems required to prevent accidents. ***Chemical Process Safety, Third Edition,*** offers students a more fundamental understanding of safety and the application required to safely design and manage today's sophisticated processes.

The third edition continues the definitive standard of the previous editions. The content has been extensively updated to today's techniques and procedures, and two new chapters have been added. A new chapter on chemical reactivity provides the information necessary to identify, characterize, control, and manage reactive chemical hazards. A new chapter on safety procedures and designs includes new content on safely management, and specific procedures including hot work permits, lock-tag-try, and vessel entry.

FEATURES

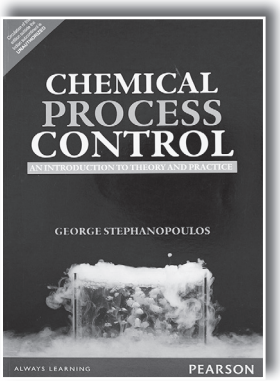
- New chapter on Chemical Reactivity.
- New chapter on Safe Design Features and Procedures.
- Extensively updated content.
- Additional homework problems.
- Power Point Slides and an instructor's solutions manual available for course use.

CONTENTS

ABOUT THE AUTHOR(S)

Daniel A. Crowl is Herbert H. Dow Professor for Chemical Process Safety at Michigan Tech. He serves on the AIChE Center for Chemical Process Safety (CCPS) Safety and Chemical Engineering Education (SACHE) Committee, and is author/editor of several AIChE books on process safety.

Joseph F. Louvar is Research Professor at Wayne State University's College of Engineering, where he teaches chemical process safety, risk assessment, and process design.



ISBN: 9789332549463

Chemical Process Control: An Introduction to Theory and Practice

George Stephanopoulos

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ABOUT THE BOOK

A thorough overview of all aspects of chemical process control — process modeling, dynamic analyses of processing systems, a large variety of control schemes, synthesis of multivariable control configurations for single units and complete chemical plants, analysis and design of digital computer control systems.

FEATURES

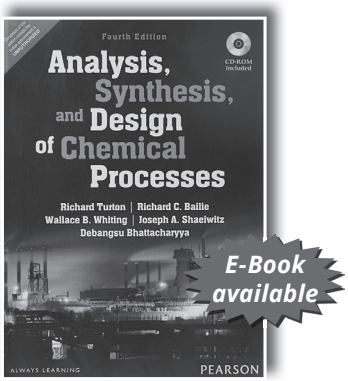
- Emphasizes problem formulation, analysis of posed control problems, and the synthesis and evaluation of alternative control systems.
- Provides a complete understanding of control design and implementation rather than a mere list of mechanistic tools.
- Discusses both controller design concepts and hardware elements needed for practical implementation of various control schemes.
- Emphasizes controllers' actions and their relative advantages and drawbacks.

CONTENTS

1. The Control of a Chemical Process: Its Characteristics and Associated Problems
2. Modeling the Dynamic and Static Behavior of Chemical Processes
3. Analysis of the Dynamic Behavior of Chemical Processes
4. Analysis and Design of Feedback Control Systems
5. Analysis and Design of Advanced Control Systems
6. Design of Control Systems for Multivariable Processes
7. Process Control Using Digital Computers

ABOUT THE AUTHOR

George Stephanopoulos, MIT



ISBN: 9789332550346

Analysis, Synthesis, and Design of Chemical Processes, 4/e

Richard Turton | Richard C. Bailie | Wallace B. Whiting | Joseph A. Shaeiwitz | Debangsu Bhattacharyya

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ABOUT THE BOOK

Process design is the focal point of chemical engineering practice: the creative activity through which engineers continuously improve facility operations to create products that enhance life. Effective chemical engineering design requires students to integrate a broad spectrum of knowledge and intellectual skills, so they can analyze both the big picture and minute details - and know when to focus on each. Through three previous editions, this book has established itself as the leading resource for students seeking to apply what they've learned in real-world, open-ended process problems. The authors help students hone and synthesize their design skills through expert coverage of preliminary equipment sizing, flowsheet optimization, economic evaluation, operation and control, simulation, and other key topics. This new Fourth Edition is extensively updated to reflect new technologies, simulation techniques, and process control strategies, and to include new pedagogical features including concise summaries and end-of-chapter lists of skills and knowledge.

FEATURES

- The #1 chemical process design guide, used by 60% of chemical engineering departments: updated with new techniques and control strategies.
- A proven tool for helping students integrate process knowledge to start solving open-ended problems.
- Updated with improved pedagogy throughout, including four new case studies on simulation in design.
- Includes new advanced chapters on both steady state and dynamic simulators.
- Adds expanded coverage of lower- and higher-level process control strategies, including MPC.

CONTENTS

Section IV: Analysis Of Process Performance

19. Process Input/Output Models
20. Tools for Evaluating Process Performance
21. Performance Curves for Individual Unit Operations
22. Performance of Multiple Unit Operations
23. Reactor Performance
24. Process Troubleshooting and Debottlenecking

Section V: The Impact of Chemical Engineering Design on Society

25. Ethics and Professionalism
26. Health, Safety, and the Environment
27. Green Engineering

Section VI. Interpersonal And Communication Skills

28. Teamwork

ABOUT THE AUTHOR(S)

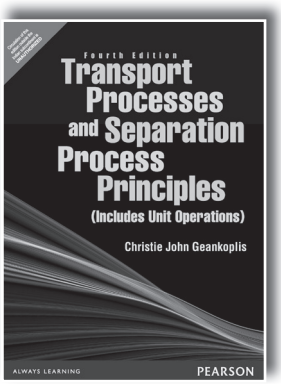
Richard Turton is professor of chemical engineering and professor in the Statler College of Engineering and Mineral Resources at West Virginia University. He has taught WVU's senior design course for more than twenty-five years.

Richard C. Bailie, professor emeritus at WVU, taught chemical engineering design for more than twenty years. He has extensive experience in process evaluation, pilot plant operation, and plant startup.

Wallace B. Whiting, professor emeritus at the University of Nevada, Reno, has practiced and taught chemical process design for more than twenty-four years.

Joseph A. Shaeiwitz has been involved in WVU's senior design sequence and sophomore- and junior-level integrated design projects for twenty years.

Debangsu Bhattacharyya, associate professor in the department of chemical engineering at WVU, has worked in computer-aided simulation, design, construction, and in the operation of a large petroleum refinery for more than ten years.



ISBN: 9789332549432

Transport Processes and Separation Process Principles (Includes Unit Operations), 4/e

Christie John Geankoplis

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ABOUT THE BOOK

Appropriate for one-year transport phenomena (also called transport processes) and separation processes course. First semester covers fluid mechanics, heat and mass transfer; second semester covers separation process principles (includes unit operations).

The title of this Fourth Edition has been changed from Transport Processes and Unit Operations to Transport Processes and Separation Process Principles (Includes Unit Operations). This was done because the term Unit Operations has been largely superseded by the term Separation Processes which better reflects the present modern nomenclature being used. The main objectives and the format of the Fourth Edition remain the same. The sections on momentum transfer have been greatly expanded, especially in the sections on fluidized beds, flow meters, mixing, and non-Newtonian fluids. Material has been added to the chapter on mass transfer. The chapters on absorption, distillation, and liquid-liquid extraction have also been enlarged. More new material has been added to the sections on ion exchange and crystallization. The chapter on membrane separation processes has been greatly expanded especially for gas-membrane theory.

FEATURES

- The comprehensive, unified, up-to-date guide to transport and separation processes.
- A more thorough coverage of momentum, heat, and mass transport processes and new coverage of separation process applications.
- Greatly expanded coverage of momentum transfer, including fluidized beds and non-Newtonian fluids.
- More detailed discussions of mass transfer, absorption, distillation, liquid-liquid extraction, and crystallization.

CONTENTS

I. Transport Processes: Momentum, Heat, And Mass

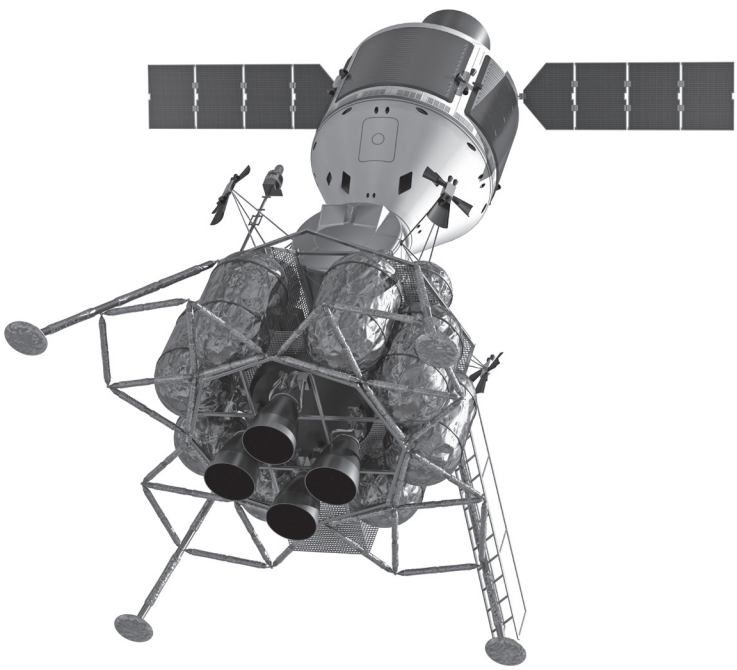
1. Introduction to Engineering Principles and Units
2. Principles of Momentum Transfer and Overall Balances
3. Principles of Momentum Transfer and Applications
4. Principles of Steady-State Heat Transfer
5. Principles of Unsteady-State Heat Transfer
6. Principles of Mass Transfer
7. Principles of Unsteady-State and Convective Mass Transfer

II. Separation Process Principles (Includes Unit Operations)

8. Evaporation
9. Drying of Process Materials
10. Stage and Continuous Gas-Liquid Separation Processes
11. Vapor-Liquid Separation Processes
12. Liquid-Liquid and Fluid-Solid Separation Processes
13. Membrane Separation Processes
14. Mechanical-Physical Separation Processes

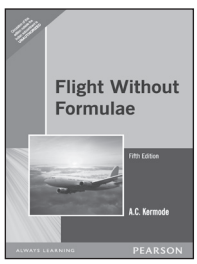
ABOUT THE AUTHOR(S)

Christie John Geankoplis is a Professor of Chemical Engineering and Materials Science at the University of Minnesota. His current research interests involve transport processes, biochemical reactor engineering, mass transfer in liquid solutions, and diffusion and/or reaction in porous solids. He holds a Ph.D. in Chemical Engineering from the University of Pennsylvania.



Aeronautical Engineering

AERONAUTICAL ENGINEERING AVAILABLE TITLES



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A.C. Kermode

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E.H.J. Pallett

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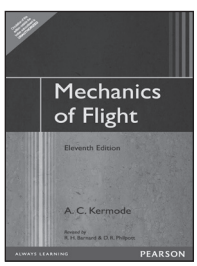

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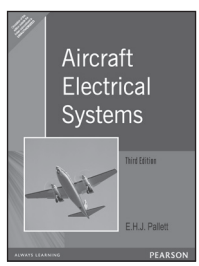

Aircraft Electrical Systems, 3/e

E.H.J. Pallett

ISBN: 9788131703892
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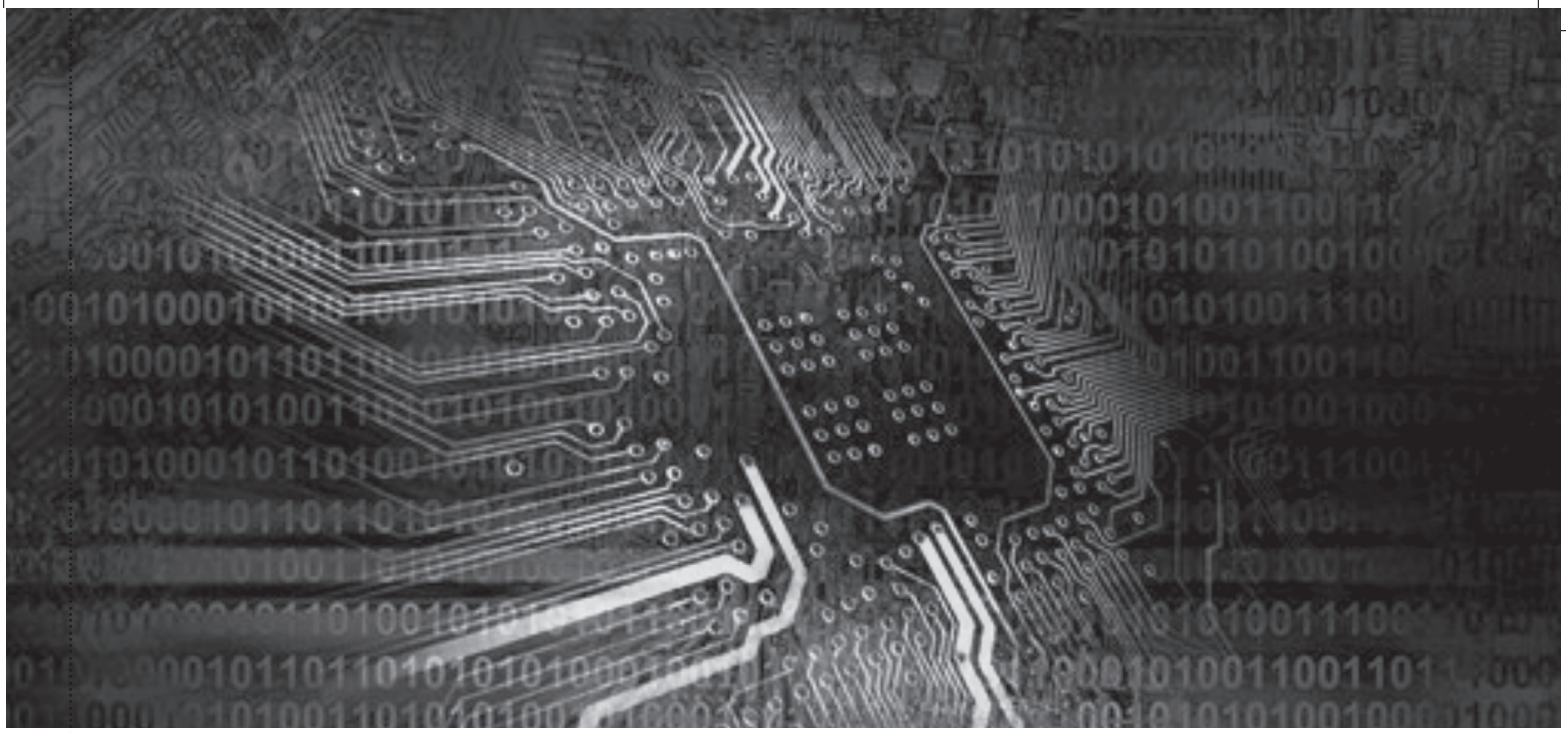

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9789332505735	Hinze	Construction Planning and Scheduling, 4/e	580.00	57
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