

2007-2008 *NEW* Civil Engineering Titles

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2007-2008 *NEW* Civil Engineering Titles

2007 New Titles

- **BEER**
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ISBN-13: 978-0-07-321220-3 / MHID: 0-07-321220-2

- **BEER**
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ISBN-13: 978-0-07-321219-7 / MHID: 0-07-321219-9

- **BEER**
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2008 New Titles

- **BEER**
Mechanics for Engineers: Statics, 5e.....55
ISBN-13: 978-0-07-246478-8 / MHID: 0-07-246478-X

- **BEER**
Mechanics for Engineers: Dynamics, 5e.....57
ISBN-13: 978-0-07-246477-1 / MHID: 0-07-246477-1

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Essentials of Fluid Mechanics.....60
ISBN-13: 978-0-07-330112-9 / MHID: 0-07-330112-4

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ISBN-13: 978-0-07-242411-9 / MHID: 0-07-242411-7

- **LEET**
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ISBN-13: 978-0-07-330538-7 / MHID: 0-07-330538-3

- **SALGADO**
The Engineering of Foundations.....77
ISBN-13: 978-0-07-250058-5 / MHID: 0-07-250058-1

Statics

International Edition

NEW

MECHANICS FOR ENGINEERS: STATICS

Fifth Edition

by Ferdinand P. Beer (deceased), and E. Russell Johnston, Jr.
University of Connecticut

2008 (March 2007) / Hardcover / 480 pages

ISBN-13: 978-0-07-246478-8 / MHID: 0-07-246478-X

ISBN-13: 978-0-07-112166-8 / MHID: 0-07-112166-8

The first book published in the Beer and Johnston Series, *Mechanics for Engineers: Statics* is a scalar-based introductory statics text, ideally suited for engineering technology programs, providing first-rate treatment of rigid bodies without vector mechanics. This new edition provides an extensive selection of new problems and end-of-chapter summaries. The text brings the careful presentation of content, unmatched levels of accuracy, and attention to detail that have made Beer and Johnston texts the standard for excellence in engineering mechanics education.

FEATURES

- Features precision, accuracy, and math level appropriate for Engineering Technology courses.
- A Mathematics Review section helps students understand the basics of the scalar math used in statics & dynamics.
- Sample Problems are included to help students work through the solution of typical engineering problems and prepare for the assigned chapter homework problems.

CONTENTS

1 Introduction. 2 Statics of Particles. 3 Statics of Rigid Bodies in Two Dimensions. 4 Statics of Rigid Bodies in Three Dimensions. 5 Distributed Forces: Centroids and Centers of Gravity. 6 Analysis of Structures. 7 Forces in Beams and Cables. 8 Friction. 9 Distributed Forces: Moments of Inertia. 10 Method of Virtual Work Index. Answers to Even-Numbered Problems.



VECTOR MECHANICS FOR ENGINEERS: STATICS AND DYNAMICS

Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, Elliot R Eisenberg, Pennsylvania State University, William E Clausen, Ohio State University, David Mazurek, U S Coast Guard Academy, and Phillip J Cornwell, Rose-Hulman Inst Tech
2007

ISBN-13: 978-0-07-321222-7 / MHID: 0-07-321222-9
(with Bookmark and OLC)

<http://www.mhhe.com/beerjohnston>

For the past fifty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Over the years their textbooks have introduced significant theoretical and pedagogical innovations in statics, dynamics, and mechanics of materials education. At the same time, their careful presentation of content, unmatched levels of accuracy and attention to detail have made their texts the standard for excellence. The new Eighth Edition of *Vector Mechanics for Engineers: Statics and Dynamics* marks the fiftieth anniversary of the Beer/Johnston series. Continuing in the spirit of its successful previous editions, the Eighth Edition provides conceptually accurate and thorough coverage together with a significant addition of new problems, including biomechanics

problems, and the most extensive media resources available.

NEW TO THIS EDITION

- The 8th editions offer a 48% new or revised homework problem set, with biomechanics-focused problems added appropriately throughout the texts.
- The photo program continues to be expanded in each edition, with new chapter opener and in chapter photos added to each chapter.
- A C.O.S.M.O.S. Solutions Manual, provided to instructors on DVD, allows for assignment generation, tracking, and distribution.
- Instructors also have the ability to edit homework problems.
- A robust Online Learning Center provides both student and instructor resources including algorithmic problems, S.M.A.R.T. tutorials, lecture PowerPoint's, and images from the text, among other resources.
- McGraw-Hill's web-based Hands-on Mechanics teaching demonstration library provides instructors with instructions for building hands-on physical models used to demonstrate important Statics and Dynamics concepts in class.

FEATURES

- A careful, step-by-step presentation is followed in each lesson of each chapter; every chapter is organized as follows: an opening photograph to help students visualize key concepts is followed by a chapter introduction with a chapter outline previewing what will be covered in each lesson. After each lesson there are 1-4 Sample Problems (set up to serve as a model for student solutions) followed by a Solving Problems On Your Own section giving solution guidelines before the lesson's problems set. At the end of each chapter students find a Review and Summary section with notes for review and examples and cross references to key sections. Finally, a Review Problem section ties together several concepts from that chapter and a Computer Problems section also has many problems relevant to the design process, encouraging open-ended solutions.
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Motion of Rigid Bodies: Energy and Momentum Methods. 18 Kinetics of Rigid Bodies in Three Dimensions. 19 Mechanical Vibrations. Appendix Fundamentals of Engineering Examination.



YOUOTHERTEACHER.COM STATICS COMPANION

by Jeff Jones, California Polytechnic State University

2007 / Softcover / 160 pages

ISBN-13: 978-0-07-331177-7 / MHID: 0-07-331177-4

(with access card)

In the YourOtherTeacher.com Statics Companion, students and instructors will find over 300 statics example problems for use in class or for extra practice outside of class with YourOtherTeacher.com's corresponding online statics streaming videos. The videos feature statics problems being solved in great detail with a voiceover, providing reinforcement for those students who need the extra help. In addition, perforated pages allow instructors to easily transfer problems to transparencies or create handouts. YourOtherTeacher.com offers a total of 40 courses, with a strong emphasis on math and engineering.

FEATURES

- Over 300 Statics Example Problems for use in class or for extra practice outside of class with YourOtherTeacher.Com's corresponding online Statics course
- By using the coupon code within the text and accessing this course, students will find problems solved by an online instructor in a detailed, step-by-step, whiteboard video format.
- Your OtherTeacher.com is the only site that actually talks and demonstrates the concept as though the student is sitting in a classroom. Other sites require users to read their solutions off the screen or watch distracting computer animations.
- Great supplement to students who are struggling in class and need a little more instruction.
- Online lessons have quizzes, so a student can test their knowledge of the lesson that they just watched

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1. Introduction. 2. Statics of Particles. 3. Rigid Bodies: Equivalent Systems of Forces. 4. Equilibrium of Rigid Bodies. 5. Distributed Forces: Centroids and Centers of Gravity. 6. Analysis of Structures. 7. Forces in Beams. 8. Friction. 9. Distributed Forces: Moments of Inertia.



VECTOR MECHANICS FOR ENGINEERS: STATICS

Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, Elliot R Eisenberg, Pennsylvania State University and David Mazurek, U S Coast Guard Academy

2007 / Hardcover / 648 pages

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(with Bookmark and OLC)

ISBN-13: 978-0-07-125765-7 / MHID: 0-07-125765-9

(SI Metric edition)

<http://www.mhhe.com/beerjohnston>

For the past fifty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Over the years their textbooks have introduced significant theoretical and pedagogical innovations in statics, dynamics, and mechanics of materials education. At the same time, their careful presentation of content, unmatched levels of accuracy and attention to detail have made their texts the standard for excellence. The new Eighth Edition of Vector Mechanics for Engineers: Statics marks the fiftieth anniversary of the Beer/Johnston series. Continuing in the spirit of its successful previous editions, the Eighth Edition provides conceptually accurate and thorough coverage together with a significant addition of new problems, including biomechanics problems, and the most extensive media resources available.

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SCHAUM'S OUTLINE OF STATICS AND MECHANICS OF MATERIALS

by William Nash, University of Massachusetts

1992 / 288 pages

ISBN-13: 978-0-07-045896-3 / MHID: 0-07-045896-0

Schaum's Publication

CONTENTS

1 Definitions and Systems of Units/2 Properties of Forces and Force Systems/3 Statics Equilibrium of Rigid Bodies/4 The Effects of Friction/5 Equilibrium of Bodies Subject to Three-Dimensional Force Systems/6 Trusses/7 Centroids, Moments of Inertia, and Distributed Loads/8 Axial Force, Twisting Moment, Shearing Force, and Bending Moment/9 Stress and Strain Analysis/10 Uniform Tension, Compression, and Shear/11 Thin Rings and Shells of Revolution/12 Torsion/13 Stresses in Beams/14 Beam Deflections/15 Combined Loadings, Theories of Failure, and Design Methodology/16 Columns/Index

Dynamics

International Edition

NEW

MECHANICS FOR ENGINEERS: DYNAMICS

Fifth Edition

by Ferdinand P. Beer (deceased), and E. Russell Johnston, Jr.
University of Connecticut

2008 (March 2007) / Hardcover / 928 pages

ISBN-13: 978-0-07-246477-1 / MHID: 0-07-246477-1

ISBN-13: 978-0-07-112165-1 / MHID: 0-07-112165-X [IE]

The first book published in the Beer and Johnston Series, Mechanics for Engineers: Dynamics is a scalar-based introductory dynamics text, ideally suited for engineering technology programs, providing first-rate treatment of rigid bodies without vector mechanics. This new edition provides an extensive selection of new problems and end-of-chapter summaries. The text brings the careful presentation of content, unmatched levels of accuracy, and attention to detail that have made Beer and Johnston texts the standard for excellence in engineering mechanics education.

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- Features precision, accuracy, and math level appropriate for Engineering Technology courses.

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2007

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<http://www.mhhe.com/beerjohnston>

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VECTOR MECHANICS FOR ENGINEERS: DYNAMICS Eighth Edition

by Ferdinand P Beer (deceased), E Russell Johnston, Jr., University of Connecticut, William E Clausen, Ohio State University, and Phillip J Cornwell, Rose-Hulman Inst Tech

2007

ISBN-13: 978-0-07-321220-3 / MHID: 0-07-321220-2 (with
Bookmark and OLC)

ISBN-13: 978-0-07-125875-3 / MHID: 0-07-125875-2 [SI Metric
edition]

<http://www.mhhe.com/beerjohnston>

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INVITATION TO PUBLISH

McGraw-Hill is interested in reviewing manuscript for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com
 Visit *McGraw-Hill Education (Asia)*
 Website: www.mcgraw-hill.com.sg

Strength Of Materials/Mechanics Of Materials

International Edition

MECHANICS OF MATERIALS

Fourth Edition

by Ferdinand P Beer (deceased); E Russell Johnston, Jr., University of Connecticut and John T DeWolf, University of Connecticut
2006 / Hardcover / 800 pages
ISBN-13: 978-0-07-310795-0 / MHID: 0-07-310795-6
ISBN-13: 978-0-07-124999-7 / MHID: 0-07-124999-0 [IE, SI Metric]

<http://www.mhhe.com/beerjohnston>

For the past forty years Beer and Johnston have been the uncontested leaders in the teaching of undergraduate engineering mechanics. Their careful presentation of content, unmatched levels of accuracy, and attention to detail have made their texts the standard for excellence. The revision of their classic Mechanics of Materials features an updated art and photo program as well as numerous new and revised homework problems. The text’s superior multimedia supplement package includes an extensive strength of materials Interactive Tutorial (created by George Staab and Brooks Breeden of The Ohio State University) that provides students with additional help on key concepts, as well as a custom website featuring animations, lecture powerpoints, and other online resources for both instructors and students.

NEW TO THIS EDITION

- Known for their accuracy and careful development, the 4th edition offers over 1600 homework problems. 30% of the homework problems are either new or revised for this edition.
- The text photo program will be expanded to include updated in-chapter photographs.
- The custom website now offers even more student and instructor resources including animations for each chapter, lecture powerpoints, course organization tools, image files and helpful weblinks. Features
- The pedagogical changes that made the 3rd Edition so successful are retained in the 4th edition, including: a review of statics and the use of free-body diagrams, a section introducing a problem-solving methodology, and a Fundamentals of Engineering (FE/EIT) Exam appendix.
- All users have access to a free Interactive Mechanics of Materials Tutorial featuring theoretical explanations coupled with examples and quizzes based directly on key concepts from the text.

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1 Introduction - Concept of Stress. 2 Stress and Strain - Axial Loading. 3 Torsion. 4 Pure Bending. 5 Analysis and Design of Beams for Bending. 6 Shearing Stresses in Beams and Thin-Walled Members. 7 Transformation of Stress and Strain. 8 Principal Stresses Under Given Loading Conditions. 9 Deflection of Beams. 10 Columns. 11 Energy Methods

SCHAUM’S OUTLINE OF STRENGTH OF MATERIALS

Fourth Edition

by William Nash, University of Massachusetts
1998 / 432 pages
ISBN-13: 978-0-07-046617-3 / MHID: 0-07-046617-3

Schaum's Publication

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Tension and Compression. Statically Indeterminate Force Systems Tension and Compression. Thin-Walled Pressure Vessels. Direct Shear Stresses. Torsion. Shearing Force and Bending Moment. Centroids, Moments of Inertia, and Products of Inertia of Plane Areas. Stresses in Beams. Elastic Deflection of Beams: Double-Integration Method. Elastic Deflection of Beams: Method of Singularity Functions. Statically Indeterminate Elastic Beams. Special Topics in Elastic Beam Theory. Plastic Deformations of Beams. Columns. Strain Energy Methods. Combined Stresses. Members Subject to Combined Loadings: Theories of Failure.

International Edition

STATICS AND STRENGTH OF MATERIALS

Second Edition

by Fa-Hwa Cheng

1997 / 816 pages

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Glencoe/McGraw-Hill Title

CONTENTS

Fundamental Concepts and Principles. Resultant of Coplanar Force Systems. Equilibrium of Coplanar Force Systems. Analysis of Structures. Friction. Concurrent Spatial Force Systems. Center of Gravity and Centroids. Area Moments of Inertia. Simple Stresses. Strains. Mechanical Properties of Materials. Torsion of Circular Shafts. Shear Forces and Bending Moments in Beams. Stresses in Beams. Design of Beams for Strength. Deflections of Beams. Statically Indeterminate Beams. Combined Stresses. Columns. Connections.

International Edition

MECHANICS OF SOLIDS

by Thomas Lardner, University of Massachusetts-Amherst; Robert Archer, University of Massachusetts-Amherst

1994 / 992 pages

ISBN-13: 978-0-07-113448-4 / MHID: 0-07-113448-4 [IE]

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1 Introduction to Stress and Strain/2 Uniaxial Loading and Deformation/3 Torsion of Circular Shafts/4 Shear Forces and Bending Moments in Beams/5 Stresses Due to Bending/6 Deflections of Statically Determinate Beams/7 Deflections of Statically Indeterminate Beams/8 Stress and Strain/9 Analysis of Combined States of Stress/10 Buckling and Stability

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Fluid Mechanics (Introduction)



ESSENTIALS OF FLUID MECHANICS

Fundamentals and Applications

by John M. Cimbala, Pennsylvania State University—University Park, and Yunus A. Cengel, University Of Nevada-Reno

2008 (September 2006) / Hardcover

ISBN-13: 978-0-07-330112-9 / MHID: 0-07-330112-4

(with Student Resource DVD)

The Online Learning Center will house numerous instructor and student resources such as lecture slides, an image library, FE Exam questions, text glossary, flashcards, web links, and more! (Browse <http://www.mhhe.com/cengel>)

Essentials of Fluid Mechanics: Fundamentals and Applications is an abridged version of a more comprehensive text by the same authors, Fluid Mechanics: Fundamentals and Applications (McGraw-Hill 2006). Suitable for a one-semester course, this text communicates directly with tomorrow's engineers in a simple yet precise manner. It covers the basic principles and equations of fluids in the context of numerous, diverse real-world engineering examples, and it helps students develop an intuitive understanding of fluid mechanics by emphasizing the physics. An abundance of figures, photographs and supplemental visual aids spark curiosity and reinforce the physics.

FEATURES

- An abridged version of the successful, Fluid Mechanics: Fundamentals and Applications by Yunus Cengel and John Cimbala (McGraw-Hill 2006), this text is suitable for a one-semester course in fluid mechanics.
- This text emphasizes the physical aspects of fluid mechanics in addition to mathematical representations and manipulations.
- Since fluid mechanics is a highly visual subject, the Cimbala text features 660 illustrations and photographs. Also included is an outstanding media program that includes narrated videos and animations.
- Topic Flexibility facilitates different approaches by covering the basics for all majors and then offers robust coverage to allow mechanical, civil, or aerospace engineering approaches.
- A Student Resources DVD is included with each text. The DVD includes the Limited Academic Version of Engineering Equation Solver (EES) with scripted solutions to select text problems and narrated Fluid Mechanics visualization videos.
- An Online Learning Center is available for students and instructors at <http://www.mhhe.com/cengel>.
- This text features Hands-on Mechanics as an additional resource for instructors. Hands-on Mechanics is a website designed for instructors who are interested in incorporating 3-Dimensional, hands-on teaching aids into their lectures.

CONTENTS

1 Introduction and Basic Concepts. 2 Properties of Fluids. 3 Pressure and Fluid Statics. 4 Fluid Kinematics. 5 Mass, Bernoulli, and Energy Equations. 6 Momentum Analysis of Flow Systems. 7 Dimensional Analysis and Modeling. 8 Internal Flow. 9 Differential Analysis of Fluid Flow. 10 External Flow: Drag and Lift. 11 Open-Channel Flow. 12 Turbomachinery.

International Edition

FLUID MECHANICS

Fundamentals and Applications

by Yunus A Cengel, University of Nevada - Reno and John M Cimbala, Pennsylvania State University - University Park

2006 / Hardcover / 864 pages

ISBN-13: 978-0-07-304465-1 / MHID: 0-07-304465-2

(with OLC, Engg Sub Card/Student DVD)

ISBN-13: 978-0-07-111720-3 / MHID: 0-07-111720-2

[IE with OLC/Student DVD]

The book website provides students with chapter-based resources and Access Science. The Instructor Edition includes text image sets, PowerPoints, and additional resources such as sample syllabi. (Browse <http://www.mhhe.com/cengel>)

FluidMechanics:FundamentalsandApplicationscommunicates directly with tomorrow's engineers in a simple yet precise manner. The text covers the basic principles and equations of fluid mechanics in the context of numerous and diverse real-world engineering examples. The text helps students develop an intuitive understanding of fluid mechanics by emphasizing the physics, and by supplying attractive figures, numerous photographs and visual aids to reinforce the physics.

FEATURES

- **EMPHASIS ON PHYSICS.** This text emphasizes the physical aspects of the subject matter in addition to mathematical representations and manipulations. The authors believe that the emphasis in undergraduate education should remain on developing a sense of the underlying physical mechanisms and a mastery of solving practical problems than an engineer is likely to face in the real world.
- **VISUAL PROGRAM.** fluid mechanics is a highly visual subject, and students learn more effectively by visual stimulation. Our text features more illustrations and photographs than other books in this category. Some of the figures and photographs in the text are intended to serve as a means of emphasizing key concepts that would otherwise go unnoticed; some serve as page summaries.
- **VIDEO CLIPS AND ANIMATIONS.** In addition to text figures and photographs, there are narrated video clips of fluid mechanics experiments that complement the text material. There are also dozens of animations created with computational fluid dynamics. Both the video clips and animations can be found on the DVD that accompanies the text.
- **SYSTEMATIC SOLUTION PROCEDURE.** A well-structured approach is used in problem solving while maintaining an informal conversational style. The problem is first stated and the objectives are identified, and the assumptions made are stated together with their justifications. The properties needed to solve the problem are listed separately. Numerical values are used together with their units to emphasize that numbers without units are meaningless, and unit manipulations are a important as manipulating the numerical values with a calculator. The significance of the findings is discussed following the solutions. This approach is also used consistently in the solutions presented in the Instructor's Solutions Manual.
- **REALISTIC END-OF-CHAPTER PROBLEMS.** End-of-chapter problems are grouped under specific topics in the order they are covered to make problem selection easier for both instructors and students. Within each group of problems are **CONCEPT QUESTIONS**, to check the students' level of understanding of basic concepts. The **COMPREHENSIVE AND REVIEW PROBLEMS** are not directly tied to any specific section of a chapter—in some cases they require review of material used in previous chapters.
- **DESIGN AND ESSAY PROBLEMS.** This special category of end-of-chapter problems encourages students to make engineering judgments, to conduct independent exploration of topics of interest, and to communicate their findings in a professional manner.
- **COMPUTER PROBLEMS.** Throughout the text comprehensive problems that require conducting extensive parametric studies are incorporated using either a spreadsheet or the enclosed EES (or other suitable) software. These problems are designated by a computer icon for easy recognition.
- **CHAPTER ON CFD.** Commercial CFD (Computational Fluid Dynamics) codes are used widely in engineering practice in the design and analysis of flow systems, and it has become exceedingly important for students to have a solid understanding of the fundamental aspects,

capabilities, and common pitfalls of CFD. Chapter 15 describes the fundamental concepts of CFD, and shows students how to use commercial CFD codes as a tool to solve complex fluid mechanics problems. We emphasize the application of CFD rather than the algorithms used in CFD code.

- **APPLICATIONS SPOTLIGHT.** Written by guest authors, this feature is designed to show how fluid mechanics has diverse applications in a wide variety of fields. The Application Spotlights highlight industry and university research worldwide.
- **CHOICE OF SI ALONE OR SI/ENGLISH UNITS.** In recognition of the fact that English units are still widely used in some industries, both SI and English units are used in this text, with an emphasis on SI. Problems, tables, and charts in English units are designated by "E" after the number for easy recognition, and they can be ignored easily by SI users.
- **ACCURACY.** The accuracy of the book will be insured by thorough testing.
- **STUDENT DVD:** Packaged free with the text, the Student Resources DVD features: 1) Limited Academic Version of EES (Engineering Equation Solver) software with scripted solutions to selected text problems 2) Video Clips of fluid mechanics experiments; and 3) Animations Library (Courtesy of Fluent, Inc.) offering dozens of animations created with CFD.
- **INSTRUCTOR'S RESOURCE CD.** This CD provides all of the text images in Jpeg and PowerPoint formats and the detailed solutions to all text problems are delivered in our electronic solutions manual and organization system—COSMOS. COSMOS is a database management tool geared toward assembling homework assignments, tests, and quizzes.

CONTENTS

1 Introduction and Basic Concepts. 2 Properties of Fluids. 3 Pressure and Fluid Statics. 4 Fluid Kinematics. 5 Bernoulli and Energy Equations. 6 Momentum and Analysis of Flow Systems. 7 Dimensional Analysis and Flow Systems. 8 Flow in Pipes. 9 Differential Analysis of Fluid Flow. 10 Approximations of the Navier-Stokes Equation. 11 Flow Over Bodies: Drag and Lift. 12 Compressible Flow. 13 Open-Channel Flow. 14 Turbomachinery. 15 Computational Fluid Dynamics (CFD). Appendices: 1 Property Tables and Charts (SI Units). 2 Property Tables and Charts (English Units) 3 Introduction to EES

International Edition

FLUID MECHANICS

Fifth Edition

by Frank M. White, University of Rhode Island—Kingston

2003 / 880 pages

ISBN-13: 978-0-07-283180-1 / MHID: 0-07-283180-4

(with Student Resource CD-ROM)

ISBN-13: 978-0-07-124343-8 / MHID: 0-07-124343-7

[IE with CD-ROM]

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CONTENTS

1 Introduction. 2 Pressure Distribution in a Fluid. 3 Integral Relations for a Control Volume. 4 Differential Relations for a Fluid Particle. 5 Dimensional Analysis and Similarity. 6 Viscous Flow in Ducts. 7 Flow Past Immersed Bodies. 8 Potential Flow and Computational Fluid Dynamics. 9 Compressible Flow. 10 Open Channel Flow. 11 Turbomachinery. Appendix A Physical Properties of Fluids. Appendix B Compressible-Flow Tables. Appendix C Conversion Factors. Appendix D Equations of Motion in Cylindrical Coordinates. Appendix E Introduction to EES. Answers to Selected Problems. Index

International Edition

FLUID MECHANICS WITH ENGINEERING APPLICATIONS

Tenth Edition

by E John Finnemore, Santa Clara University and Joseph B Franzini, Stanford University

2002 / 816 pages

ISBN-13: 978-0-07-243202-2 / MHID: 0-07-243202-0

ISBN-13: 978-0-07-125126-6 / MHID: 0-07-125126-X [IE]

CONTENTS

1 Introduction. 2 Properties of Fluids. 3 Fluid Statics. 4 Basics of Fluid Flow. 5 Energy in Steady Flow. 6 Momentum and Forces in Fluid Flow. 7 Similitude and Dimensional Analysis. 8 Steady, Incompressible Flow in Pressure Conduits. 9 Forces on Immersed Bodies. 10 Steady Flow in Open Channels. 11 Fluid Measurement. 12 Unsteady-Flow Problems. 13 Steady Flow of Compressible Fluids. 14 Ideal Flow Mathematics. 15 Hydraulic Machinery - Pumps. 16 Hydraulic Machinery - Turbines. Appendix A Fluid and Geometric Properties. Appendix B Equations in Fluid Mechanics. Appendix C Programming and Computer Applications. Appendix D Examples of Using Solvers

International Edition

FLUID MECHANICS

Ninth Edition

by Victor Streeter, retired, University of Florida; K.W. Bedford and E. Benjamin Wylie, University of Michigan

1998 / 656 pages / Hardcover

ISBN-13: 978-0-07-115600-4 / MHID: 0-07-115600-3 [IE]

CONTENTS

Part 1 • Fundamentals of Fluid Mechanics and Transport/1 Fluid Properties/2 Fluid Statics/3 Fluid Flow Concepts and Basic Control Volume Equations/4 Basic Governing Differential Equations/5 Dimensional Analysis and Similitude/6 Viscous Flow: Pipes and Channels/7 External Flows/8 Ideal Flow/9 Transport by Advection and Diffusion/Part 2 • Applications of Fluid Mechanics and Transport/10 Measurement/11 Turbo Machinery/12 Closed-Conduit Flow/13 Flow in Open Channels/14 Applications of Transport Phenomena.

SCHAUM'S OUTLINE OF FLUID MECHANICS AND HYDRAULICS

Third Edition

by Randal Giles, Drexel Institute of Technology; Jack B. Evett, UNCC; Cheng Liu, UNCC

1994 / 384 pages

ISBN-13: 978-0-07-020509-3 / MHID: 0-07-020509-4

Schaum's Publication

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1 Properties of Fluids/2 Fluid Statics/3 Hydrostatic Force on Surfaces/4 Buoyancy and Flotation/5 Translation and Rotation of Liquid Masses/6 Dimensional Analysis and Hydraulics Similitude/7 Fundamentals of Fluid Flow/8 Flow in Closed Conduits/9 Complex Pipeline Systems/10 Flow in Open Channels/11 Flow of Compressible Fluids/12 Measurement of Flow of Fluids/13 Forces Developed by Moving Fluids/14 Fluid Machinery/Appendix/Index

Engineering Economy

International Edition

ENGINEERING ECONOMY

Sixth Edition

by Leland T Blank, Texas A&M University, and Anthony Tarquin, University of Texas–El Paso

2005 / 741 pages / Hardcover

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(with OLC Bind-In Card/Engg Sub Card)

ISBN-13: 978-0-07-110901-7 / MHID: 0-07-110901-3 [IE]

The Online Learning Center contains a Glossary, Web links, FE Exam Problems, Objectives, Spreadsheet Exercises, True and False Quizzing, an Image Bank of Text Figures, PowerPoint Lecture Slides, and more!
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Engineering Economy, 6th edition, provides undergraduate students and practicing professionals with a solid preparation in the financial understanding of engineering problems and projects, as well as the techniques needed for evaluating and making sound economic decisions. Information on cost estimation, depreciation, and taxes has been updated to conform to new tax laws and a majority of the end-of-chapter problems are revised or new to this edition. Distinguishing pedagogical characteristics of this market-leading text include its easy-to-read writing style, chapter objectives, worked examples, integrated spreadsheets, case studies, Fundamentals of Engineering (FE) exam questions, and numerous end-of-chapter problems. Graphical cross-referencing is indicated so users are able to locate additional material on any one subject in the text. Quick-solve (Q-Solv) and Excel-solve (E-Solve) icons found in the text indicate the difficulty of a problem, example, or spreadsheet. While the chapters are progressive, over three-quarters can stand alone, allowing instructors flexibility for meeting course needs. A complete Online Learning Center (OLC) offers supplemental practice problems, spreadsheet exercises, review questions for the Fundamentals of Engineering (FE) exam, and more!

NEW TO THIS EDITION

- Blank JUST (5/04) moved to the number one spot (selling 6,600 units a year with 22% market share)!
 - Approximately 80% of the end-of-chapter problems are either new or revised for the 6th edition.
 - Extensive use of pedagogy is used throughout the book, including, easy-to-read writing style, chapter objectives, worked examples, integrated spreadsheets, case studies, FE exam problems and quizzes, end-of-chapter problems, cross-referencing, and icons.
 - The Online Learning Center (<http://www.mhhe.com/blank6>) will include resources for students and instructors. Resources will include: Glossary, Web links, FE Exam Problems and Quiz, Learning Objectives, Spreadsheet Exercises, Lecture Slides, Summaries, general textbook information, and more!
- Features
- The text integrates spreadsheets in the book and on the Online Learning Center (Web site for the text).
 - Case Studies and/or Extended Exercises can be found in every chapter of the text.

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Level 1 This is How It All Starts. Chapter 1: Foundations of Engineering Economy. Chapter 2: Factors: How Time and Interest Affect Money. Chapter 3: Combining Factors. Chapter 4: Nominal and Effective Interest Rates. Level 2 Tools for Evaluating Alternatives. Chapter 5: Present Worth Analysis. Chapter 6: Annual Worth Analysis. Chapter 7: Rate of Return Analysis: Single Alternative. Chapter 8: Rate of Return Analysis: Multiple Alternatives. Chapter 9: Benefit/Cost Analysis and Public Sector Economics. Chapter 10: Making Choices: the Method, MARR, and Multiple Attributes. Level 3 Making Decisions on Real-World Projects. Chapter 11: Replacement and Retentions Decisions. Chapter 12: Selection from Independent Projects Under Budget Limitation. Chapter 13: Breakeven Analysis. Level 4 Rounding Out the Study. Chapter 14: Effects of Inflation. Chapter 15:

Surveying

Cost Estimation and Indirect Cost Allocation. Chapter 16: Depreciation Methods. Chapter 17: After-Tax Economic Analysis. Chapter 18: Formalized Sensitivity Analysis and Expected Value Decisions. Chapter 19: More on Variation and Decision Making Under Risk. Appendix A: Using Spreadsheets and Microsoft Excel. Appendix B: Basics of Accounting Reports and Business Ratios. Appendix C: Comparing Economic Alternatives (from Gottfried's, Spreadsheet Tools for Engineers Using Excel). Bibliography. Compound Interest Factor Tables. Index.

International Edition

ENGINEERING ECONOMICS

Fourth Edition

by James Riggs, deceased; David Bedworth, Arizona State University; and Sabah Randhawa, Oregon State University

1996 / 736 pages

ISBN-13: 978-0-07-115526-7 / MHID: 0-07-115526-0 [IE with 3.5" disk]

CONTENTS

1 Introduction to Engineering Economics. 2 Time Value of Money. 3 Present Worth Comparisons. 4 Equivalent Annual Worth Contributions. 5 Rate of Return Calculations. 6 Structural Analysis of Alternatives. 7 Replacement Analysis. 8 Public Projects. 9 Depreciation and Income Tax. 10 Effects of Inflation. 11 Sensitivity Analysis. 12 Breakeven Analysis. 13 Risk Analysis. 14 Multistage Sequential Analysis. 15 Multiattribute Decision Making. Appendixes

SCHAUM'S OUTLINE OF ENGINEERING ECONOMICS

by Jose Sepulveda, University of Central Florida; William Souder, University of Pittsburgh; Byron Gottfried, University of Pittsburgh

1984 / 224 pages

ISBN-13: 978-0-07-023834-3 / MHID: 0-07-023834-0

Schaum's Publication

SURVEYING FOR CONSTRUCTION

Fifth Edition

by William Irvine and Finlay MacLennan, Glasgow Metropolitan College

2006 / 464 pages

ISBN-13: 978-0-07-711114-4 / MHID: 0-07-711114-1

(McGraw-Hill UK Title)

<http://www.mcgraw-hill.co.uk/textbooks/irvine>

Surveying for Construction 5e is an essential textbook for students of engineering new to surveying, and will also appeal to students of building and environmental studies and archaeology. Offering a strong grounding in land and construction surveying, the authors clearly and comprehensively guide the reader through the principles, methods and equipment used in modern-day surveying. Taking into account recent advances in the field, the material has been fully updated and revised throughout including new and up-to-date coverage of levelling, total stations, detail surveys, and EDM. A new chapter on GPS technology has been added. In keeping with the practical nature of the book, there are chapters on setting out construction works and surveying existing buildings, which guide the reader step-by-step through the fundamental procedures. The clear and methodical nature of the explanations, supported by a wide range of exercises and examples, make Surveying for Construction 5e an invaluable and modern introduction to surveying.

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- Practical focus: There are also numerous diagrams and figures giving students a clear and detailed understanding through practical references. Extensive boxed examples and exercises providing real-world methods and calculations are also provided throughout.

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Chapter One: Surveying Fundamentals. Chapter Two: Understanding Maps and Plans. Chapter Three: Linear Surveying. Chapter Four: Levelling. Chapter Five: Contouring. Chapter Six: Vertical sections. Chapter Seven: Theodolites and Total Surveys. Chapter Eight: Traverse surveys. Chapter 9: Global Positioning System (GPS). Chapter 10: Detail Survey. Chapter 11: Curve ranging. Chapter 12: Setting out construction works. Chapter 13: Mensuration—areas. Chapter 14: Mensuration—volumes. Chapter 15: Surveys of existing buildings

SURVEYING, VOLUME I

Second Edition

by S K Duggal, Motilal Nehru National Institute of Technology, Allahabad, India

2004 / 656 pages

ISBN-13: 978-0-07-053470-4 / MHID: 0-07-053470-5

(Tata McGraw-Hill Title)

Modern surveying is unimaginable without the use of the electronic equipment. The book has been updated to cover the latest developments in the field particularly in the use of electronic equipment for surveying. Coverage has been expanded to cover Total Stations and Topographic maps. New to the Edition : A chapter on Total Stations (electronic tachometers) describing their use in measuring horizontal and vertical angles together with scope distances. Color plates of a few popular Total Stations are included; Topographic Maps are covered in the last chapter along with the explanations of their preparation. Other Features : Each chapter includes objective type questions useful for the competitive examinations. Concisely written – the subject theory is presented in a point-wise systematic manner.

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1 Fundamental Definitions and Concepts. 2 Horizontal Measurements. 3 Compass Surveying. 4 Theodolite. 5 Traversing. 6 Measurement of Vertical Distances. 7 Tacheometry. 8 Plane Table. 9 Contouring. 10 Measurement of Area. 11 Measurement of Volumes. 12 Curves. 13 Total Stations. 14 Topographic Maps. Index

SURVEYING, VOLUME II

Second Edition

by S K Duggal, Motilal Nehru National Institute of Technology, Allahabad, India

2004 / 448 pages

ISBN-13: 978-0-07-053471-1 / MHID: 0-07-053471-3

(Tata McGraw-Hill Title)

This book coupled with Volume I forms a complete offering on Surveying. New to the Edition : Complete chapter on Global Positioning Systems (GPS) which explains the use of satellites and electromagnetic radiation for accurate measurements. Coverage on Remote Sensing upgraded to include data acquisition and interpretation. There is also a section on Indian Remote Sensing Satellites. Salient Features : Well-drawn illustrations lending conceptual clarity to the subject treatment. Hydrography and aerial surveying are treated at length. 237 objective questions 114 solved examples 149 exercise problems

CONTENTS

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International Edition

ELEMENTS OF PHOTOGRAMMETRY WITH APPLICATIONS IN GIS

Third Edition

by Paul R Wolf, University of Wisconsin, Madison and Bon A DeWitt, University of Florida, Gainesville

2000 / 648 pages

ISBN-13: 978-0-07-292454-1 / MHID: 0-07-292454-3

ISBN-13: 978-0-07-123689-8 / MHID: 0-07-123689-9 [IE]

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International Edition

SURVEYING THEORY AND PRACTICE

Seventh Edition

by James M. Anderson, University of California–Berkeley, and Edward M. Mikhail, Purdue University

1998 / 1,040 pages / Hardcover

ISBN-13: 978-0-07-015914-3 / MHID: 0-07-015914-9

ISBN-13: 978-0-07-118822-7 / MHID: 0-07-118822-3 [IE]

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Part I●Concepts/1 Surveying and Mapping/2 Survey Measurements and Adjustments/3 Planning and Data Acquisition/Part II●Basic Survey Measurements/4 Distance Measurement/5 Vertical Distance Measurement Leveling/6 Angle and Direction Measurements/7 Combined Distance and Angle Measurement System/Part III●Survey Operations/8 Traverse/9 Standard Methods for Horizontal Positioning/10 Astronomy/Part IV●Modern Surveying and Mapping/11 Map Projections/12 Global Positioning System (GPS)/13 Photogrammetric Surveying and Mapping/14 Mapping, Digital Mapping, and Spatial Information Systems/Part V●Types of Surveys/15 Control and Topographic Surveying/16 Route Surveying/17 Construction Surveying/18 Land Surveys/Appendixes/A Elementary Mathematical Concepts/B Introduction to Vector and Matrix Algebra/C Coordinate Transformations (including transformations between geodetic reference systems)/D Introduction to Probability and Statistics/E Trigonometric Formulas and Statistical Tables

SCHAUM'S OUTLINE OF INTRODUCTORY SURVEYING

by Roy Wirshing, U.S. Air Force, deceased; James R. Wirshing, U.S. Air Force

1985 / 368 pages

ISBN-13: 978-0-07-071124-2 / MHID: 0-07-071124-0

Schaum's Publication

Construction Management

CONSTRUCTION OPERATIONS MANUAL OF POLICIES AND PROCEDURES

Fourth Edition

by Andrew M. Civitello

2007 (February 2007) / Hardcover / 480 pages

ISBN-13: 978-0-07-143219-1 / MHID: 0-07-143219-1

Professional Book

An exhaustive, business-boosting reference, Construction Operations Manual of Policies and Procedures, Fourth Edition, by Andrew Civitello, Jr., is loaded with procedures and step-by-step details for successfully managing construction operations. You get nearly 500 pages of methods, strategies and tactics, forms and ready-to-copy letters all laid out for you in a concise, easy-to-grasp style. This new edition, now the most timely, complete, and useful guide available for managing construction, packs over 20% more forms, and checklists. It also covers new developments in construction management software, as well as new material devoted to the Design-Build process. Included CD-ROM packs project delivery forms, word-for-word letters, sample letters, and checklists to make the overall construction project management process easier and more efficient.

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- Design build emphasis expanded (New to this edition)
- Ease time pressures, organizational hassles, procedural dilemmas, materials and cost wrangles, and legal and regulatory issues
- Finding a single time or cost saving nugget of information will more than pay for the price of this manual

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PROJECT MANAGEMENT IN CONSTRUCTION

Fifth Edition

by Sidney M. Levy

2007 (September 2006) / Hardcover / 448 pages

ISBN-13: 978-0-07-146417-8 / MHID: 0-07-146417-4

Professional Book

Step-by-step advice on making every construction job profitable and successful. Covering every aspect of the job, from writing initial contracts to complying with OSHA regulations, this trusted resource outlines the essential tenets of project management including estimating, purchasing, and administration of the contract.

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Chapter 1: An Introduction to the Construction Industry. Chapter 2: The Start of the Construction Process. Chapter 3: The General Conditions to the Construction Contract. Chapter 4: Bonds and Insurance. Chapter 5: Organizing the Project Team. Chapter 6: Successful Project Completion Demands a Successful Start. Chapter 7: Estimating. Chapter 8: Buying Out the Job. Chapter 9: The Change Orders. Chapter 10: Quality Control and Quality Assurance. Chapter 11: Project Documentation. Chapter 12: Claims, Disputes, Arbitration and Mediation. Chapter 13: Safety in Construction. Chapter 14: Design-Build. Chapter 15: Sustainability and Green Buildings. Chapter 16: Interoperability and Building Information Modeling (BIM). Index.

CONCRETE

Microstructure, Properties, and Materials

Third Edition

by P. Kumar Mehta, and Paulo J.M. Monteiro

2006 / Hardcover / 659 pages

ISBN-13: 978-0-07-146289-1 / MHID: 0-07-146289-9

Professional Book

This textbook presents the art and science of concrete in a simple, clear, hands-on manner, focusing on the following: Cement and concrete are predicted to be the premier building material of the 21st Century; Includes unique diagrams, photographs, and summary tables; Updated to include new chapters on non-destructive methods for concrete; future challenges in concrete technology; an increased number of examples of concrete applications; and new developments in durability.

NEW TO THIS EDITION

- A new chapter on non-destructive methods for concrete
- A new chapter on the future challenges in concrete technology
- New sections on: high-performance concrete, high-workability concrete, self-consolidating concrete, fiber-reinforced concrete, and roller-compacted concrete, high-volume fly-ash concrete
- Increased number of examples of application of concrete
- New developments in durability of concrete: damage of high-strength concrete by fire, frost damage of concrete, delayed ettringite formation, crystallization of salts in pores, alkali-silica reaction, concrete in seawater

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Part 1—microstructure And Properties Of Hardened Concrete. Part 2—concrete: Materials, Mix Proportioning, And Early-age Properties. Part 3—recent Advances And Concrete In The Future.

CPM IN CONSTRUCTION MANAGEMENT

Sixth Edition

by James J. O'Brien, Civil Engineering, and Fredric L. Plotnick
2006 / Hardcover with CDROM / 651 pages
ISBN-13: 978-0-07-145769-9 / MHID: 0-07-145769-0

Professional Book

NEW TO THIS EDITION

- Develop hands-on understanding of proper construction scheduling processes
- Primavera sample software included on CD-ROM
- A complete "John Doe" example included, showing how to develop and use proper scheduling methods
- CPM (Critical Path Movement) is a tool to help management stay on top of the project from the outset to the conclusion and closeout
- Updates the examples of CPM used in litigation
- "How to" perform calculations of CPM to understand what the software is doing
- Illustrates various tabular and graphic reports
- CPM can be used to save big money through delay avoidance, accurate cost and time predictions, and claims avoidance and/or reduction

CONTENTS

Part 1: Introduction to CPM Planning and Scheduling. Chapter 1: Introduction to CPM Planning and Scheduling. Chapter 2: Project Control Systems Evolve in Academia. Chapter 3: Project Control Systems Evolve in the Marketplace. Part 2: The Theory of CPM Planning and Scheduling. Chapter 4: Your New Tool—Read Before Using. Chapter 5: Network Construction. Chapter 6: The Durations of the Logic Network. Chapter 7: What Comes Out ...Chapter 8: Cranking the Engine Chapter 9: Adding Complexity. Chapter 10: PDM and Precedence Networks. Chapter 11: Respecting the Power of PDM. Chapter 12: Enhancements and Extensions by Software Vendors. Part 3: The Tools of CPM Planning and Scheduling. Chapter 13: Measure Twice—Cut Once. Chapter 14: Choosing Codes. Chapter 15: Acquiring Information to Initial Schedule. Chapter 16: Acquiring the Durations. Chapter 17: Specifying the Relationships Between Activities. Chapter 18: Example Project: The John Doe Project. Part 4: The Practice of CPM Planning. Chapter 19: Equipment and Workforce Planning. Chapter 20: Procurement. Chapter 21: Preconstruction. Chapter 22: Evolution of the Project Schedule. Chapter 23: CPM and Cost Control. Part 5: The Practice of CPM Scheduling. Chapter 24: Let's Look Under the Hood at the Engine. Chapter 25: Converting the Team Plan to the Calculated Schedule. Chapter 26: Engineer's Review of the Submitted Initial CPM. Chapter 27: Updating the Schedule. Chapter 28: Engineer's Review of the Submitted Update. Chapter 29: Revising the Logic Network. Chapter 30: Engineer's Review of the Submitted Revision. Chapter 31: Case Histories. Chapter 32: Additional Exercises for Students of Project Controls. Part 6: Advanced Topics. Chapter 33: Specifying CPM. Chapter 34: CPM in Claims and Litigation. Chapter 35: Delay Analysis. Chapter 36: Disruption Analyses. Chapter 37: Advanced Topics: Resource Leveling and Smoothing. Chapter 38: Advanced Topics: PERT, SPERT, and GERT. Chapter 39: Conclusion. Appendix A: Sample Cpm Specification As A Guideline For Preparing Your Own Specification. Appendix B: Unified Facilities Guide Specification. Appendix C: Notation For Rdcpm. Glossary. Acronyms And Symbols. Index

International Edition

CONSTRUCTION PLANNING, EQUIPMENT AND METHODS

Seventh Edition

by Robert L. Peurifoy, (deceased), Clifford J. Schexnayder, Arizona State University—Tempe, and Aviad Shapira, Technion – Israel Institute of Technology

2006 / Hardcover / 704 pages

ISBN-13: 978-0-07-296420-2 / MHID: 0-07-296420-0

ISBN-13: 978-0-07-110724-2 / MHID: 0-07-110724-X [IE]

<http://www.mhhe.com/peurifoy7e>

Construction Planning, Equipment, and Methods, Seventh Edition, follows in the footsteps of the previous editions by providing the reader with the fundamentals of machine utilization and production estimating in a logical, simple, and concise format. Our text features expanded coverage of building construction in today's global environment. Hundreds of photos and illustrations have been added to the Seventh Edition to make this dynamic text even more accessible to both students and professionals. In addition, since technology is constantly evolving, this text provides an understanding of machine capabilities and how to properly apply those capabilities to construction challenges.

NEW TO THIS EDITION

- The new forming chapter focuses on advanced modular and industrialized forming systems.
- The chapters on "compressed air" and "equipment for pumping water" have been combined because the concept of calculating friction losses is applied both to air and water in designing systems.
- Web resource information for machine data is provided at the end of every chapter of the text. In addition, web based exercises, which in some cases direct the student to specific machine information on the web, have been added to many of the chapters.
- All chapters have undergone revision, ranging from simple clarification to major modifications, depending on the need to improve organization and presentation of concepts.
- The pictures in all of the chapters have been updated to illustrate the latest equipment and methods, and more pictures of operating equipment have been used in this edition.
- Safety discussions are now presented in each of the chapters dealing with machine or formwork use.
- The world of construction equipment is truly global. As such, the authors have searched globally for the latest ideas in machine application and technology.
- The authors have updated and expanded the number of problems at the close of each chapter. They have also included several problems that compel the student to learn using a step-by-step approach: these problems specifically request the solution for each step before moving on to reach a final solution.
- Electronic supplements
- Tie content to ENR/Construction.com
- Free Access to Construction Indexes on Construction.com
- Student access to Dodge
- Most problems can be solved in Excel, tie to "Excel Zone"
- Excel is addressed as a problem solving tool

FEATURES

- Strong coverage of the management and planning of construction projects.

CONTENTS

1 Machines Make It Possible. 2 Fundamental Concepts of Equipment Economics. 3 Planning for Earthwork Construction. 4 Soil and Rock. 5 Compaction and Stabilization Equipment. 6 Machine Equipment Power Requirements. 7 Dozers. 8 Scrapers. 9 Excavators. 10 Trucks and Hauling Equipment. 11 Finishing Equipment. 12 Drilling Rock and Earth. 13 Blasting Rock. 14 Aggregate Production. 15 Asphalt Mix and Placement. 16 Concrete and Concrete Equipment. 17 Cranes. 18 Draglines and Clamshells. 19 Piles and Pile-Driving Equipment. 20 Air Compressors and Pumps. 21 Planning for Building Construction. 22 Forming Systems. Appendixes: A. Alphabetical List of Units with Their Names and Conversion Factors. B. Selected English-to-Conversion Factors. C. Selected U.S. Customary (English) Unit Equivalents. D. Selected Metric Unit Equivalents

CEMS: PART 1 REVIEWED

by Ai-Lin Teo, Davis Langdon and Seah Singapore Pte Ltd, KPK
Quantity Surveyors
2005 / Softcover / 372 pages
ISBN-13: 978-0-07-123952-3 / MHID: 0-07-123952-9

Asian Publication

This book is intended as a reference text to the use of CEMS Part 1. CEMS Part 1 Reviewed explains the principles and measurement rules of taking-off building quantities based on the new code of practice for Construction Electronic Measurement Standards (CEMS) Part 1: Standard Method of Measurement (SMM) for building works. The book presents a comprehensive overview of measurement techniques. There is a section on the differences between the old standard method of measurement (SMM2) and the CEMS Part 1. The easy-to-follow guide to develop standard descriptions for electronic measurement is presented for all the 18 sections of the CEMS Part 1. Written in a style that is easy to follow, students, quantity surveyors, architects and engineers will find it a very useful book.

FEATURES

- This is the first measurement textbook reviewing and explaining the measurement rules of all sections of the CEMS Part 1.
- The content corresponds with the Singapore tertiary building course syllabus.
- The book includes examples of standard descriptions for all the sections and a table showing the differences between the SMM2 and the CEMS for quick and easy reference.
- Measurement is also made easier with good indexing system.

CONTENTS

CEMS Construction Electronic Measurement Standards. Preface. About the authors. 1 Structure of the book and guidance notes. 2 01000000 Preliminaries. 3 02000000 Demolition and alteration works. 4 03000000 Piling and diaphragm walling. 5 04000000 Excavation works. 6 05000000 Concrete work. 7 06000000 Brickwork and blockwork. 8 07000000 Stonework. 9 08000000 Roofing. 10 09000000 Carpentry. 11 10000000 Joinery. 12 11000000 Ironmongery. 13 12000000 Structural steelwork. 14 13000000 Metalwork. 15 14000000 Wall and ceiling finishes. 16 15000000 Floor finishings. 17 16000000 Glazing.

BUILDING QUANTITIES

An Introduction Using Construction Electronic Measurement Standards

by Ai-Lin Teo, and David Langdon
2004 / Softcover with CD

ISBN-13: 978-0-07-123361-3 / MHID: 0-07-123361-X

Asian Publication

Building Quantities: An Introduction using Construction Electronic Measurement Standards aims to provide students with an understanding of the general principles and steps adopted in the preparation of Bill of Quantities (BQ), and is designed to be used in conjunction with the SS CP 97:2002 Construction Electronic Measurement Standards (CEMS), Part 1: SMM for Building Works. It presents a comprehensive overview of measurement techniques and a step-by-step guide to e-measurement. Part I of the book discusses the restructuring of the construction industry, the need for CEMS and its impact on the quantity surveying profession. It also discusses the future of quantity surveying in the use of Information Technology (IT). Part II discusses the principles of measurement, construction terminology, and standard abbreviations used by quantity surveyors. The measurement rules and taking-off process are also discussed here. The Specifications and Billing Process chapters are found in Part III of the book. Part IV discusses the steps in generating quantities from virtual building models using CEMS. The easy-to-follow guide to electronic measurement is presented in a CD-ROM. This guide is the result of a collaborative research in generating quicker and more accurate quantities from Object Oriented CAD building models using CEMS. It contains the step-by-

step guide to e-taking-off and e-billing and how to create the component library using the CEMS.

FEATURES

- This is the first building e-measurement book in Singapore.
- The book corresponds with the syllabus of building courses in Singapore tertiary institutions.
- The sequence of this book corresponds with the actual taking-off sequence of simple single storey buildings.
- The book includes examples of taking-off and sample Bills of Quantities as additional illustrations, and presents insights into other facets of quantity surveying tasks.

CONTENTS

PART I Introduction. 1 Structure of the book. 2 Reinvention of the construction industry. 3 Quantity surveying services. PART II Taking-Off: Principles of Measurement. 4 Fundamentals of measurement. 5 Centre-line method. PART II Taking-Off: Pitched Roof Building with Strip Foundation. 6 Excavation works and concrete work (substructure). 7 Brickwork (superstructure) 8 Finishes (superstructure). 9 Doors and windows (superstructure). 10 Timber Pitched Roof (superstructure). PART III Taking-Off: Reinforced Concrete Roof Building with Pad Foundation. 11 Excavation works and concrete work (substructure). 12 Brickwork (superstructure). 13 Finishes (superstructure). 14 Doors and windows (superstructure). 15 Concrete work and roofing (superstructure). 16 Reinforcement (substructure and superstructure). PART IV Working-Up. 17 Specifications. 18 Bills of Quantities. PART IV E-Measurement and Exercises. 19 E-measurement. 20 Exercises

International Edition

CONSTRUCTION MANAGEMENT FUNDAMENTALS

by Cliff Schexnayder, Arizona State University—Tempe and Richard Mayo (deceased)

2004 / 512 pages

ISBN-13: 978-0-07-292200-4 / MHID: 0-07-292200-1

(with Bind-In Engg Sub Card)

ISBN-13: 978-0-07-123269-2 / MHID: 0-07-123269-9 [IE]

<http://www.mhhe.com/0072818778>

This first edition of Construction Management Fundamentals is general in terms of individual construction process activities and comprehensive in terms of construction fundamentals (get work, do work, keep score). This is a book that can be used to support a basic undergraduate construction course aimed at engineering and architecture students who are not majoring in construction. This is particularly true in the case of civil engineering and architecture programs where there are only one or two construction courses in the curriculum. This audience has very little knowledge of the construction industry, construction processes, or how projects are executed. Currently the only construction books available cover individual elements in depth while what is needed is a survey or introduction book that presents all of the critical subjects.

CONTENTS

1 History. Construction Management: 2 Overview. 3 Construction Management. 4 Planning and Scheduling. 5 Estimating. 6 Engineering Estimating. 7 Building Estimating. 8 Contracts. 9 Finance and Accounting. Construction Practice: 10 Machine Power. 11 Equipment Selection. 12 Equipment Cost. 13 Building Materials. 14 Building Methods. 15 Quality and Productivity. 16 Safety. 17 Trends

International Edition

ESTIMATING CONSTRUCTION COSTS

Fifth Edition

by Robert L. Peurifoy (deceased), and Garold D. Oberlender,
Oklahoma State University—Stillwater

2002 / 576 pages

ISBN-13: 978-0-07-253626-3 / MHID: 0-07-253626-8

(with CD-ROM)

ISBN-13: 978-0-07-123945-5 / MHID: 0-07-123945-6

[IE with CD-ROM]

CONTENTS

1 Introduction. 2 Bid Documents. 3 Estimating Process. 4 Conceptual Cost Estimating. 5 Cost of Construction Labor and Equipment. 6 Handling and Transporting Material. 7 Earthwork and Excavation. 8 Highways and Pavements. 9 Foundations. 10 Concrete Structures. 11 Steel Structures. 12 Carpentry. 13 Interior Finish, Millwork, and Wallboards. 14 Roofing and Flashing. 15 Masonry. 16 Floor Systems. 17 Floor Finishes. 18 Glass and Glazing. 19 Painting. 20 Plumbing. 21 Electrical Wiring. 22 Sewerage Systems. 23 Water Distribution Systems. 24 Total Cost of Engineering Projects. 25 Computer Estimating. Appendix A Abbreviations. Appendix B Example Project

International Edition

COMPUTER APPLICATIONS IN CONSTRUCTION

by Boyd Paulson, Stanford University

1995 / 608 pages

ISBN-13: 978-0-07-113608-2 / MHID: 0-07-113608-8 [IE]

CONTENTS

1 The Impact of Computers/2 Overview of Construction Applications/3 Computer Hardware/4 Computer Software and File Systems/5 Feasibility Study and Analysis/6 Design and Development/7 Procurement, Training, Implementation, and System Management/8 Procedural Language/9 Developing Applications with Spreadsheets/10 Developing Applications with File and Database Software/11 Developing Applications with AI-Based Expert System Software/12 Estimating/13 Project Planning and Scheduling/14 Accounting and Cost Engineering/15 Operations Simulation/16 Building for Tomorrow on Today's Technology and Applications/Appendixes

International Edition

PROFESSIONAL CONSTRUCTION MANAGEMENT

Third Edition

by Donald S. Barrie, CM Consultants, Boyd C. Paulson, Stanford University

1992 / 672 pages

ISBN-13: 978-0-07-003889-9 / MHID: 0-07-003889-9

ISBN-13: 978-0-07-112917-6 / MHID: 0-07-112917-0 [IE]

CONTENTS

1 Management in the Engineering and Construction Industry/2 Development And Organization Of Projects/3 Applications And Requirements For Management Organizations/4 Introduction To An Example Project/5 Preconstruction Site Investigation, Planning Scheduling, Estimating And Design/6 Bidding And Award/7 Construction/8 Application Of Controls/9 Selecting A Construction Manager/10 Concepts Of Project Planning And Control/11 Estimating Project Costs/12 Planning And Control Of Operations And Resources/13 Cost Engineering/14 Procurement/15 Value Engineering/16 Quality Assurance/17 Safety And Health In Construction/18 Risk Management, Insurance, Bonding, Liens And Licensing/19 Industrial Relations/20 Current State Of The Art Of Professional Construction Management/Appendixes

Structures



FUNDAMENTALS OF STRUCTURAL ANALYSIS

Third Edition

by Kenneth M. Leet, Northeastern University, Chia-Ming Uang,
University Of California-San Diego, and Anne Gilbert, Speigel
Zamecnik & Shah

2008 (September 2006) / Hardcover / 784 pgs

ISBN-13: 978-0-07-330538-7 / MHID: 0-07-330538-3

The Online Learning Center contains instructor and student resources such as the RISA 2-D software, lecture outlines, an image bank, helpful web links and more! (Browse <http://www.mhhe.com/leet3e>)

Fundamentals of Structural Analysis, third edition introduces engineering and architectural students to the basic techniques for analyzing the most common structural elements, including beams, trusses, frames, cables, and arches. Leet et al cover the classical methods of analysis for determinate and indeterminate structures, and provide an introduction to the matrix formulation on which computer analysis is based. Third edition users will find that the text's layout has improved and the solutions manual has been typeset and carefully checked for accuracy.

NEW TO THIS EDITION

- Design and layout has been improved to better illustrate example problems.
- Example problems are now on a two page spread, where in the past readers had to flip back and forth to follow examples. Now all the information in one place.
- The Solutions Manual has been revised and checked for accuracy.
- The text features an Online Learning Center at <http://www.mhhe.com/leet3e>.

FEATURES

- Free access to RISA software, which is beneficial since RISA is among the easiest to learn and utilize, and is a well-known analysis tool in the industry.
- The text contains a highly detailed, realistic art program with fully drawn, practical illustrations.
- Different types of Structural and Building Codes are described.
- Chapter Two, Design Loads, is devoted to a comprehensive discussion of loads that include dead and live loads, tributary areas and earthquake and wind forces. Wind specifications conform to the latest edition of the ASCE Standard.
- "Computer Problems" that require a computer solution, rather than a hand analysis, are found in various chapters. We also offer an academic version of RISA-2D software for free to adopters of the text.

CONTENTS

1 Introduction. 2 Design Loads. 3 Statics of Structures-Reactions. 4 Trusses. 5 Beams and Frames. 6 Cables. 7 Arches. 8 Live Load Forces: Influence Lines for Determinate Structures. 9 Deflections of Beams and Frames. 10 Work-Energy Methods for Computing Deflections. 11 Analysis of Indeterminate Structures by the Flexibility Method. 12 Analysis of Indeterminate Beams and Frames by the Slope-Deflection Method. 13 Moment Distribution. 14 Indeterminate Structures: Influence Lines. 15 Approximate Analysis of Indeterminate Structures. 16 Introduction to the General Stiffness Method. 17 Matrix Analysis of Trusses by the Direct Stiffness Method. 18 Matrix Analysis of Beams and Frames by the Direct Stiffness Method. Appendix A Review of Matrix Operations. Glossary. Answers to Odd-Numbered Problems. Credits. Index

International Edition

RELIABILITY OF STRUCTURES

by Andrzej S Nowak, University of Michigan, Ann Arbor and Kevin, Collins, University of Michigan, Ann Arbor

2000 / 528 pages / Hardcover

ISBN-13: 978-0-07-116354-5 / MHID: 0-07-116354-9 [IE]

CONTENTS

Chapter 1: Introduction. Chapter 2: Random Variables. Chapter 3: Functions of Random Variables. Chapter 4: Simulation Techniques. Chapter 5: Structural Safety Analysis. Chapter 6: Design Codes. Chapter 7: Structural Load Models. Chapter 8: Models of Resistance. Chapter 9: System Reliability. Chapter 10: Human Error Models.

Structures: Steel

BRIDGE ENGINEERING

Second Edition

by Demetrios E. Tonias, and Jim J. Zhao

2007 (September 2006) / Hardcover / 600 pages

ISBN-13: 978-0-07-145903-7 / MHID: 0-07-145903-0

Professional Book

The very latest coverage of the entire bridge engineering process. Written for new and experienced highway engineers, this master resource offers the most complete and practical treatment available for every aspect of highway bridge design, rehabilitation, and maintenance. From initial concept all the way to final contract documentation preparation, Bridge Engineering presents a clear and detailed road map to the entire bridge engineering process.

NEW TO THIS EDITION

- Current maintenance and repair methods
- New AASHTO design codes and ASCE design methods
- LRFD and ASD integrated throughout with examples and problems included
- Latest design and construction methods
- SI units integrated throughout

CONTENTS

Preface. Section 1: The Structure. Section 2: Project Inception. Section 3: The Superstructure. Section 4: The Substructure. Section 5: Implementation & Management. Appendix. Acknowledgments. Illustration Credits. Index. About the Authors

AN INTRODUCTION TO THE FINITE ELEMENT METHOD

by Wahyu Kuntjoro

2006 / Softcover / 256 pages

ISBN-13: 978-0-07-124144-1 / MHID: 0-07-124144-2

(An Asian Publication)

An Introduction to the Finite Element Method is organized and written in such a way that students should not find it difficult to understand the concepts and applications discussed in the book. Rigorous mathematical treatments and derivations are kept to a minimum. A consistent approach of finite element formulation and solution is used for every domain analysis described in the book. Plenty of simple examples are given to show students how to solve related problems. The exercises at the end of some chapters are within students' capability and can be done without using a computer. Although this book is intended primarily for undergraduate students, it is also suitable for the early part of finite element courses in postgraduate programme. The basic and conceptual approaches which are used also make this book appropriate for practising engineers who want to know and learn the finite element method.

CONTENTS

1— Introduction. 2—Linear Spring Elements and the Direct Equilibrium Method. 3—Bar Element. 4—Truss Elements. 5—Beam and Frame Elements. 6—The Minimum Potential Energy Method. 7—Constant Strain Triangular Elements. 8—Higher-Order Elements and Isoparametric Formulation. 9— Solid Elements - Tetrahedral. 10— Analysis of Structural Dynamics. 11—Analysis of Heat Transfer. 12—Finite Element Applications and Computer Programming. Appendix A. Appendix B. Index

International Edition

AN INTRODUCTION TO THE FINITE ELEMENT METHOD

Third Edition

by JN Reddy, Texas A&M University

2006 / Hardcover / 912 pages

ISBN-13: 978-0-07-246685-0 / MHID: 0-07-246685-5

ISBN-13: 978-0-07-124473-2 / MHID: 0-07-124473-5 [IE]

The Instructor and Student Resource Web site contains general textbook information, solutions to end-of-chapter problems, executables and supplementary chapters on the FEM1D and FEM2D computer programs. (Browse <http://www.mhhe.com/reddy3e>)

J.N. Reddy's, An Introduction to the Finite Element Method, third edition is an update of one of the most popular FEM textbooks available. The book retains its strong conceptual approach, clearly examining the mathematical underpinnings of FEM, and providing a general approach of engineering application areas. Known for its detailed, carefully selected example problems and extensive selection of homework problems, the author has comprehensively covered a wide range of engineering areas making the book appropriate for all engineering majors, and underscores the wide range of use FEM has in the professional world. A supplementary text Web site located at <http://www.mhhe.com/reddy3e> contains password-protected solutions to end-of-chapter problems, general textbook information, supplementary chapters on the FEM1D and FEM2D computer programs, and more!

NEW TO THIS EDITION

- Approximately 30% of the problems have been revised or are new to this edition.
- The previous Chapter 3, Second-Order Boundary Value Problems, has been split into two chapters for the third edition. Chapter 3 is now Second-Order Differential Equations in One-Dimension: Finite Element Models, and Chapter 4 is now Second-Order Differential Equations in One-Dimension: Applications.
- A text Web site located at <http://www.mhhe.com/reddy3e> hosts solutions to end-of-chapter problems, executables, supplementary chapter on FEM1D and FEM2D computer programs and general textbook information.

FEATURES

- Worked examples are said to be one of the best features of this text. The examples are detailed, carefully selected and a number of examples that show FEM applications are included in this text.
- Strong coverage of FEM's mathematical foundations.
- Comprehensive coverage of material from general field problems as well heat transfer, fluid mechanics, and solid and structural mechanics (bars, beams, frames, plane elasticity and plate bending).
- The author's writing style is clear and his explanation plenty.
- The text includes a variety of problems including some for hand calculation, some to be solved using the computer, and others of the class project variety, which can be done with commercial FEM packages if the professor so chooses. The problems are a major feature of this text.

CONTENTS

1 Introduction. 2 Mathematical Preliminaries, Integral Formulations, and Variational Methods. 3 Second-order Differential Equations in One Dimension: Finite Element Models. 4 Second-order Differential Equations in One Dimension: Applications. 5 Beams and Frames. 6 Eigenvalue and Time-Dependent Problems. 7 Computer Implementation. 8 Single-Variable Problems in Two Dimensions. 9 Interpolation Functions, Numerical Integration, and Modeling Considerations. 10 Flows of Viscous Incompressible Fluids. 11 Plane Elasticity. 12 Bending of Elastic Plates. 13 Computer Implementation of Two-Dimensional Problems. 14 Prelude to Advanced Topics

International Edition

STEEL STRUCTURES: BEHAVIOR AND LRFD

by Ramulu S Vinnakota, Marquette University

2006 / Hardcover / 736 pages

ISBN-13: 978-0-07-236614-3 / MHID: 0-07-236614-1

ISBN-13: 978-0-07-113107-0 / MHID: 0-07-113107-8 [IE]

Ramulu Vinnakota's, Behavior and LRFD of Steel Structures stresses both the design of steel structures (as do the competing texts) and the behavior of steel under specific conditions. The most recent editions of the American Institute of Steel Construction's Load and Resistance Factor Design Specifications (3e, 1999) and the LRFD Manual (3e, 2001) are used and extensively referenced in the Vinnakota text, and these documents are based on the behavior of steel. Therefore covering the interaction of design and behavior in one textbook is a unique approach. Designers must understand structural behavior as an integral part of the design process, and chapters 1 to 5 thoroughly cover this material. As Ramulu Vinnakota notes, "The heart and soul of design are the ability to conceive a structure that will behave as desired, and intuition regarding different framing options." The balance of the chapters covers the elements that makeup a steel building structure: members and connections. In each chapter, discussion of theory and behavior of the member under various combinations of loads it must resist is followed by a discussion of design applications. Throughout the text, a web icon references readers to the book's website (<http://www.mhhe.com/vinnakota>), which contains extensive additional coverage of advanced topics.

FEATURES

- This text integrates both design of steel structures with behavior of steel.
- Numerous carefully drawn figures of structural systems, members, and bolted and welded joints illustrate the text.
- The most recent editions of the LRFD Specifications and the LRFD Manual are used and extensively referenced throughout the text.
- Numerous worked out example problems emphasizing the application of design concepts are included.
- An accompanying website (<http://www.mhhe.com/vinnakota>) contains extensive advanced steel design and behavior coverage. These additional topics are closely integrated with the text.

CONTENTS

1 Introduction. 2 Steels. 3 Structures. 4 Design Loads and Design Philosophy. 5 Structural Analysis and Required Strengths. 6 Connectors. 7 Tension Members. 8 Axially Loaded Columns. 9 Adequately Braced Compact Beams. 10 Unbraced Beams. 11 Members Under Combined Forces. 12 Joints and Connecting Elements. 13 Connections

SCHAUM'S OUTLINE OF STRUCTURAL STEEL

DESIGN

by Abraham J. Rokach, University of Illinois

1991 / Softcover / 210 pages

ISBN-13: 978-0-07-053563-3 / MHID: 0-07-053563-9

Schaum's Publication

Structural Dynamics

International Edition

INTERMEDIATE STRUCTURAL ANALYSIS

by Chu-Kia Wang, University of Wisconsin, Madison

1983 / 656 pages

ISBN-13: 978-0-07-066623-8 / MHID: 0-07-066623-7 [IE]

Structural Finite Element Methods

International Edition

FUNDAMENTALS OF FINITE ELEMENT ANALYSIS

by David Hutton, Washington State University, Pullman

2004 / 512 pages / Hardcover

ISBN-13: 978-0-07-292236-3 / MHID: 0-07-292236-2

(with Bind-In SubCard)

ISBN-13: 978-0-07-124160-1 / MHID: 0-07-124160-4 [IE]

This new text, intended for the senior undergraduate finite element course in civil or mechanical engineering departments, gives students a solid basis in the mechanical principles of the finite element method and provides a theoretical foundation for applying available software analysis packages and evaluating the results obtained. Dr. Hutton discusses basic theory of the finite element method while avoiding variational calculus, instead focusing upon the engineering mechanics and mathematical background that may be expected of a senior undergraduate engineering student. The text relies upon basic equilibrium principles, introduction of the principle of minimum potential energy, and the Galerkin finite element method, which readily allows application of the FEM to nonstructural problems.

CONTENTS

1 Basic Concepts of the Finite Element Method. 2 Stiffness Matrices, Spring and Bar Elements. 3 Truss Structures: The Direct Stiffness Method. 4 Flexure Elements. 5 Method of Weighted Residuals. 6 Interpolation Functions for General Element Formulation. 7 Applications in Heat Transfer. 8 Applications in Fluid Mechanics. 9 Applications in Solid Mechanics. 10 Structural Dynamics. Appendix A Matrix Mathematics. Appendix B Equations of Elasticity. Appendix C Solution Techniques for Linear Algebraic Equations. Appendix D The Finite Element Personal Computer Program. Appendix E Problems for Computer Solution

Structures: Concrete

CONCRETE TECHNOLOGY

Third Edition

by M L Gambhir, Thapar Institute of Engineering and Technology, Patiala

2004 / 672 pages

ISBN-13: 978-0-07-058374-0 / MHID: 0-07-058374-9

(Tata McGraw-Hill Title)

The new edition of the book conforms to the revised IS: 456-2000 codes specified by the Bureau of Indian Standards. The third edition covers the latest technological developments in the field. The conceptual clarity of the text enables the readers to understand the mechanism of fresh and hardened concrete and foresee the consequences of change in the parameters.

NEW TO THE THIRD EDITION

- Binary and Ternary Composite Cements (Chapter 2)
- Introduces new chapter on High Performance Concretes illustrating how to produce cost-effective HPC tailored to specific environmental exposure
- Different methods of mix proportioning compared by means of a mix design problem
- Strengthening deficient / damaged concrete members with composite laminates (Chapter 17)
- Recent technological advances like ferrocement, fiber reinforced ferrocement, fiber reinforced concrete, SIFCON (Slurry Infiltrated Concrete), SIMCON (Slurry Infiltrated Mat Concrete), polymer impregnated concrete and state-of-the-art nondestructive testing From the Reviewer : "The third edition is the best Indian book on Concrete for undergraduate and graduate students and even for the practicing professionals".

CONTENTS

1 Concrete as Construction Material. 2 Concrete Making Materials-I: Cement. 3 Concrete Making Materials-II: Aggregate. 4 Concrete Making Materials-III: Water. 5 Admixtures. 6 Properties of Fresh Concrete. 7 Rheology of Concrete. 8 Properties of Hardened Concrete. 9 Quality Control of Concrete. 10 Proportioning of Concrete Mixes. 11 Production of Concrete. 12 Concreting under Extreme Environmental Conditions. 13 Inspection and Testing. 14 Special Concrete and Concreting Techniques. 15 Deterioration of Concrete and its Prevention. 16 High Performance Concrete. 17 Repair Technology for Concrete Structures. Appendix. Bibliography. Index

International Edition

DESIGN OF CONCRETE STRUCTURES

Thirteenth Edition

by Arthur H Nilson, Cornell University—Ithaca; David Darwin, University of Kansas—Lawrence and Charles W Dolan, University of Wyoming — Laramie

2004 / 896 pages / Hardcover

ISBN-13: 978-0-07-292199-1 / MHID: 0-07-292199-4 (with Bind-In Engg Sub Card)

ISBN-13: 978-0-07-123260-9 / MHID: 0-07-123260-5 [IE]

Contains supplementary resources for the book. (Browse <http://www.mcgraw-hillengineeringcs.com>)

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by Richard Budynas, Rochester Institute of Technology

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Foundations



THE ENGINEERING OF FOUNDATIONS

by Rodrigo Salgado, Purdue Univ-West Lafayette

2008 (October 2006) / Hardcover / 928 pgs

ISBN-13: 978-0-07-250058-5 / MHID: 0-07-250058-1

The web site for this text contains student and instructor resources such as an image bank of the text's figures, solutions manual, helpful web links and more! (Browse <http://www.mhhe.com/salgado>)

The Engineering of Foundations presents the subject of foundation engineering in a logical framework, in a natural sequence and in as simple a presentation as possible. The text emphasizes conceptual understanding and avoids an oversimplistic treatment of the subject. Estimation of soil parameters for use in design is given high priority. Users will find an up-to-date text that relates theory to real world practices and integrates concepts and continuity of examples across chapters. Illustrations, applications and hands-on examples are provided, to explain these critical foundations. Explains the "why". One reviewer notes, "This is the Holtz and Kovacs of Foundations!!"

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