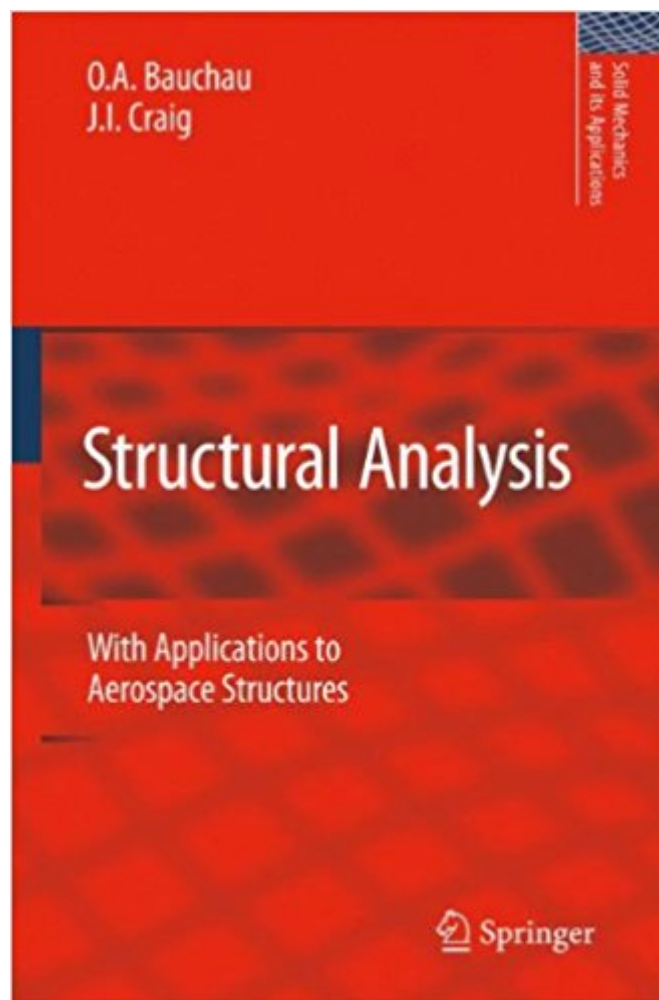




Ebook Directory
the best source of ebook

The book was found

Structural Analysis: With Applications To Aerospace Structures (Solid Mechanics And Its Applications)



Synopsis

The authors and their colleagues developed this text over many years, teaching undergraduate and graduate courses in structural analysis courses at the Daniel Guggenheim School of Aerospace Engineering of the Georgia Institute of Technology. The emphasis is on clarity and unity in the presentation of basic structural analysis concepts and methods. The equations of linear elasticity and basic constitutive behaviour of isotropic and composite materials are reviewed. The text focuses on the analysis of practical structural components including bars, beams and plates. Particular attention is devoted to the analysis of thin-walled beams under bending shearing and torsion. Advanced topics such as warping, non-uniform torsion, shear deformations, thermal effect and plastic deformations are addressed. A unified treatment of work and energy principles is provided that naturally leads to an examination of approximate analysis methods including an introduction to matrix and finite element methods. This teaching tool based on practical situations and thorough methodology should prove valuable to both lecturers and students of structural analysis in engineering worldwide. This is a textbook for teaching structural analysis of aerospace structures. It can be used for 3rd and 4th year students in aerospace engineering, as well as for 1st and 2nd year graduate students in aerospace and mechanical engineering.

Book Information

Series: Solid Mechanics and Its Applications (Book 163)

Hardcover: 943 pages

Publisher: Springer; 2009 edition (September 21, 2009)

Language: English

ISBN-10: 9048125154

ISBN-13: 978-9048125159

Product Dimensions: 6.4 x 2.1 x 9.2 inches

Shipping Weight: 3.9 pounds (View shipping rates and policies)

Average Customer Review: 2.9 out of 5 stars 5 customer reviews

Best Sellers Rank: #267,937 in Books (See Top 100 in Books) #11 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics #136 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural #146 in Books > Textbooks > Engineering > Aeronautical Engineering

Customer Reviews

From the reviews: "This textbook is based on courses given by both authors at Georgia, Tech

and is aimed directly at the early years undergraduates. It succeeds admirably in meeting the students' needs by including a plethora of set problems and worked examples. | Moreover the way is then open in later years to general weighted residual formulations and applications to nonlinear and non-self-adjoint problems which are powerful tools in modern numerical codes. • (G. A. O. Davies, Aeronautical Journal, March, 2011)

The authors and their colleagues developed this text over many years, teaching undergraduate and graduate courses in structural analysis courses at the Daniel Guggenheim School of Aerospace Engineering of the Georgia Institute of Technology. The emphasis is on clarity and unity in the presentation of basic structural analysis concepts and methods. The equations of linear elasticity and basic constitutive behaviour of isotropic and composite materials are reviewed. The text focuses on the analysis of practical structural components including bars, beams, and plates. Particular attention is devoted to the analysis of thin-walled beams under bending, shearing, and torsion. Advanced topics such as warping, non-uniform torsion, shear deformations, thermal effect and plastic deformations are addressed. A unified treatment of work and energy principles is provided that naturally leads to an examination of approximate analysis methods including an introduction to matrix and finite element methods. This teaching tool based on practical situations and thorough methodology should prove valuable to both lecturers and students of structural analysis in engineering worldwide.

The book itself is fine, but 's kindle version has incorrect page ordering. I spoke with several representatives and nobody was able to assist me with this issue. They lied to me about being able to download the book to confirm my problem, and the whole experience was less than pleasant. However, I think this speaks more about the problem with Kindle books than with this particular text. I would buy a hardcover copy if I didn't already shell out for the Kindle version.

Although there is a lot of good material in this book, it is very hard to follow and should not be used for supplemental learning in mechanics education. Essential information and equations are scattered and badly presented. I would suggest multiple other textbooks over this one for engineering majors.

Covers a whole lot of topics. This book offers a lucid and thorough explanation for all topics in Structures.

Great technical text for course work and beyond...

You can either read 60 pages of this overly wordy text or watch a ten minute youtube video to understand a simple derivation.

[Download to continue reading...](#)

Structural Analysis: With Applications to Aerospace Structures (Solid Mechanics and Its Applications) Design and Analysis of Composite Structures: With Applications to Aerospace Structures The Wonders of the Colorado Desert (Southern California), Vol. 1 of 2: Its Rivers and Its Mountains, Its Canyons and Its Springs, Its Life and Its ... Journey Made Down the Overflow of the Colo The Techniques of Modern Structural Geology, Volume 3: Applications of Continuum Mechanics in Structural Geology Strengthening of Reinforced Concrete Structures: Using Externally-Bonded Frp Composites in Structural and Civil Engineering (Woodhead Publishing Series in Civil and Structural Engineering) Fracture and Fatigue Control in Structures: Applications of Fracture Mechanics (Prentice-Hall International Series in Civil Engineering and Engineering Mechanics) Boundary Integral Equations in Elasticity Theory (Solid Mechanics and Its Applications) Fundamentals of Ultrasonic Phased Arrays (Solid Mechanics and Its Applications) Introduction to Aerospace Structural Analysis Analysis of Aircraft Structures: An Introduction (Cambridge Aerospace Series) Introduction to Practical Peridynamics: Computational Solid Mechanics Without Stress and Strain (Frontier Research in Computation and Mechanics of Materials) Composite Structures & Construction: Modern Methods In Wet Lay-up & Prepreg Construction for Aerospace / Automotive / Marine Applications (DIY Home Workshop Book 2) Thermal Structures for Aerospace Applications (AIAA Education Series) Theory of Aerospace Propulsion, Second Edition (Aerospace Engineering) Theory of Aerospace Propulsion (Aerospace Engineering) Structural Analysis and Synthesis: A Laboratory Course in Structural Geology Structural Analysis and Synthesis: A Laboratory Course in Structural Geology 3rd (third) edition by Rowland, Stehen M., Duebendorfer, Ernest M., Schiefelbein, I published by Wiley-Blackwell (2007) [Spiral-bound] Structural Analysis and Synthesis: A Laboratory Course in Structural Geology, 2nd Edition Symbolism, Its Origins and Its Consequences (Art, Literature and Music in Symbolism, Its Origins and Its) The Finite Element Analysis of Shells - Fundamentals (Computational Fluid and Solid Mechanics)

Contact Us

DMCA

Privacy

FAQ & Help