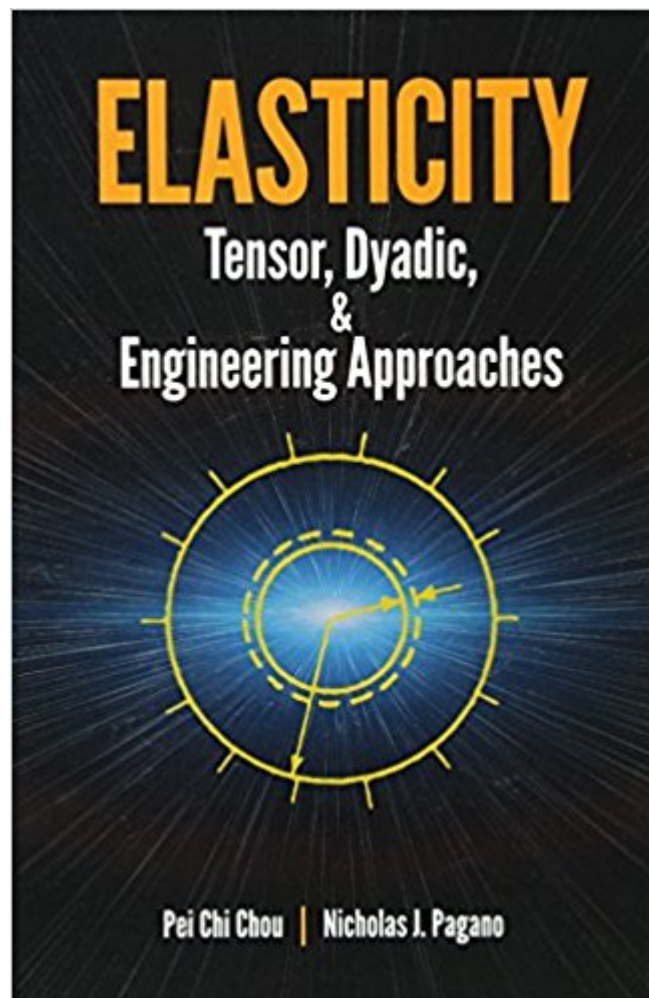




Ebook Directory
the best source of ebook

The book was found

Elasticity: Tensor, Dyadic, And Engineering Approaches (Dover Civil And Mechanical Engineering)



Synopsis

Written for advanced undergraduates and beginning graduate students, this exceptionally clear text treats both the engineering and mathematical aspects of elasticity. It is especially useful because it offers the theory of linear elasticity from three standpoints: engineering, Cartesian tensor, and vector-dyadic. In this way the student receives a more complete picture and a more thorough understanding of engineering elasticity. Prerequisites are a working knowledge of statics and strength of materials plus calculus and vector analysis. The first part of the book treats the theory of elasticity by the most elementary approach, emphasizing physical significance and using engineering notations. It gives engineering students a clear, basic understanding of linear elasticity. The latter part of the text, after Cartesian tensor and dyadic notations are introduced, gives a more general treatment of elasticity. Most of the equations of the earlier chapters are repeated in Cartesian tensor notation and again in vector-dyadic notation. By having access to this threefold approach in one book, beginning students will benefit from cross-referencing, which makes the learning process easier. Another helpful feature of this text is the charts and tables showing the logical relationships among the equations – especially useful in elasticity, where the mathematical chain from definition and concept to application is often long. Understanding of the theory is further reinforced by extensive problems at the end of each chapter.

Book Information

Series: Dover Civil and Mechanical Engineering

Paperback: 290 pages

Publisher: Dover Publications; Revised ed. edition (January 17, 1992)

Language: English

ISBN-10: 0486669580

ISBN-13: 978-0486669588

Product Dimensions: 5.4 x 0.6 x 8.5 inches

Shipping Weight: 11.2 ounces (View shipping rates and policies)

Average Customer Review: 4.1 out of 5 stars 6 customer reviews

Best Sellers Rank: #764,990 in Books (See Top 100 in Books) #115 in [Books > Science & Math > Physics > Nanostructures](#) #773 in [Books > Textbooks > Engineering > Civil Engineering](#) #3339 in [Books > Engineering & Transportation > Engineering > Mechanical](#)

Customer Reviews

Written for advanced undergraduates and beginning graduate students, this exceptionally clear text

treats both the engineering and mathematical aspects of elasticity. It is especially useful because it offers the theory of linear elasticity from three standpoints: engineering, Cartesian tensor, and vector-dyadic. In this way the student receives a more complete picture and a more thorough understanding of engineering elasticity. Prerequisites are a working knowledge of statics and strength of materials plus calculus and vector analysis. The first part of the book treats the theory of elasticity by the most elementary approach, emphasizing physical significance and using engineering notations. It gives engineering students a clear, basic understanding of linear elasticity. The latter part of the text, after Cartesian tensor and dyadic notations are introduced, gives a more general treatment of elasticity. Most of the equations of the earlier chapters are repeated in Cartesian tensor notation and again in vector-dyadic notation. By having access to this threefold approach in one book, beginning students will benefit from cross-referencing, which makes the learning process easier. Another helpful feature of this text is the charts and tables showing the logical relationships among the equations--especially useful in elasticity, where the mathematical chain from definition and concept to application is often long. Understanding of the theory is further reinforced by extensive problems at the end of each chapter.

This book concisely goes through the derivations of elasticity; it is well written and relatively easy to read for a textbook. The numerous tables and flowcharts make this book a very good quick look up reference. As I am coming at elasticity from another background, I found that a quick review of this book allows me to read and understand papers in this field much more clearly. The "rosetta stone" table for tensor and vector/dyadic notation of common operators in one of the later chapters is quite useful. I don't think I have seen that spelled out anywhere else. Most books just use one convention or the other. Another two good background chapters are the summary of the introduction of Jeffreys's Cartesian Tensors book and a chapter summarizing formulas from general curvilinear coordinates.

Little hard to understand type of textbook but once you taste you really like it. It is a great book if you wanna learn Elasticity.

Good

I received the product in excellent shape. Its always nice once in a while to get a product that seems "too good to be true" but is in fact a very good product and not a hoax.

This book cannot be a textbook for neither graduate or undergraduate students

It is really a good book for this prize. Though there are plenty of books on theory of elasticity subject, there is no book concisely explains the subject like this one. It is meant for a first time learner also helps little bit to understand the complex notations in tensor, dyadic approach for elasticity problems. Overall it is a good buy for a beginner who ants to learn the elasticity subject from the scratch. I would strongly suggest this book for both senior and graduate students who are interested in theory of elasticity.

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

Elasticity: Tensor, Dyadic, and Engineering Approaches (Dover Civil and Mechanical Engineering)
Principles of Tensor Calculus: Tensor Calculus Theory of elasticity and plasticity (Dover books on engineering and engineering physics) Code Check Plumbing & Mechanical 4th Edition: An Illustrated Guide to the Plumbing and Mechanical Codes (Code Check Plumbing & Mechanical: An Illustrated Guide) Flow-Induced Vibrations: An Engineering Guide (Dover Civil and Mechanical Engineering) Shigley's Mechanical Engineering Design (McGraw-Hill Series in Mechanical Engineering) Dyadic Data Analysis (Methodology in the Social Sciences) Mathematical Handbook for Scientists and Engineers: Definitions, Theorems, and Formulas for Reference and Review (Dover Civil and Mechanical Engineering) The Finite Element Method: Linear Static and Dynamic Finite Element Analysis (Dover Civil and Mechanical Engineering) Groundwater and Seepage (Dover Civil and Mechanical Engineering) Dynamics of Fluids in Porous Media (Dover Civil and Mechanical Engineering) Analytical Fracture Mechanics (Dover Civil and Mechanical Engineering) Non-Linear Elastic Deformations (Dover Civil and Mechanical Engineering) Advanced Strength of Materials (Dover Civil and Mechanical Engineering) History of Strength of Materials (Dover Civil and Mechanical Engineering) Advanced Mechanics of Materials and Applied Elasticity (5th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Advanced Mechanics of Materials and Applied Elasticity (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) Tensors in mechanics and elasticity (Engineering physics; an international series of monographs) Civil War: American Civil War in 50 Events: From the Very Beginning to the Fall of the Confederate States (War Books, Civil War History, Civil War Books) (History in 50 Events Series Book 13) Geometric Dimensioning and Tolerancing for Mechanical Design 2/E (Mechanical Engineering)

Contact Us

DMCA

Privacy

FAQ & Help