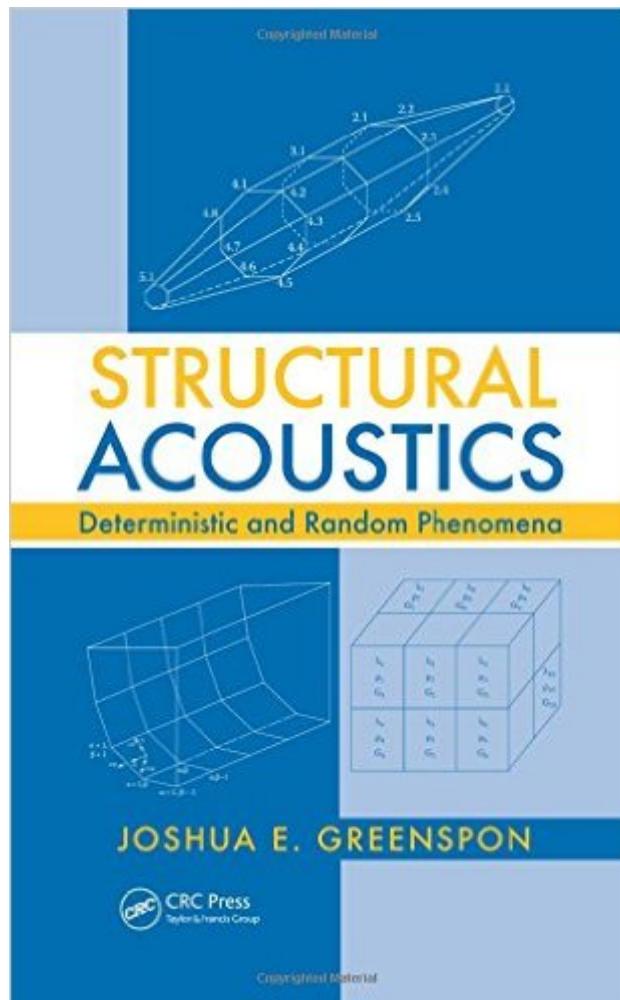


The book was found

Structural Acoustics: Deterministic And Random Phenomena



Synopsis

From jet engine noise that generates vibrations in the structure of an aircraft, to the sound radiation from the hull of a ship or submarine that makes it identifiable, an understanding of structural acoustics is key in the design process in maritime, automotive, aerospace, and architectural engineering. Building on classic works in the field, *Structural Acoustics: Deterministic and Random Phenomena* presents fundamental concepts, relations, and simplified methods for calculating complex problems associated with vibrations and noise issues of automobiles, ships, submarines, and aircraft. This practical reference studies the response of structures and media that are coupled with a fluid and are under static, dynamic, and random loading. Simplified solutions to complicated problems Starting with a review of the fundamentals of acoustics and structural acoustics, the book discusses the response of the beams, plates, and shells that compose most built-up structures before providing methods for solving problems of built-up systems, including a procedure for computing the response of an elastic or viscoelastic media without resorting to a large computer program. Building on this analysis, the second section develops the analysis for random loading, which can also be applied to geophysical phenomena and viscoelastic media. Proceeding from the fundamental aspects of simple structures to more complicated cases with more involved loading, the book presents formulas and applications for random loading. By providing a fundamental understanding of sound radiation in air and water, this book shows readers how to solve structural and acoustical problems. An important reference for those working in the area of acoustics and vibration analysis, it also includes computer programs for acoustical analysis available at www.crcpress.com.

Book Information

Hardcover: 297 pages

Publisher: CRC Press; 1 edition (June 6, 2011)

Language: English

ISBN-10: 1439830932

ISBN-13: 978-1439830932

Product Dimensions: 6 x 0.8 x 9.2 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,891,292 in Books (See Top 100 in Books) #117 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics #661 in Books >

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

Structural Acoustics: Deterministic and Random Phenomena Mathematical Control Theory: Deterministic Finite Dimensional Systems (Texts in Applied Mathematics) Random House Webster's Word Menu (Random House Newer Words Faster) Random Vibrations: Analysis of Structural and Mechanical Systems Applications of Digital Signal Processing to Audio and Acoustics (The Springer International Series in Engineering and Computer Science) Communication Acoustics: An Introduction to Speech, Audio and Psychoacoustics An Introduction to Environmental Biophysics (Modern Acoustics and Signal) Room Acoustics, Fifth Edition Musical Acoustics, 3rd Edition Acoustics of Worship Spaces Structural Stability of Steel: Concepts and Applications for Structural Engineers 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] The Techniques of Modern Structural Geology, Volume 3: Applications of Continuum Mechanics in Structural Geology Bizarre True Stories: Weird And Unusual True Stories Of The Paranormal, Strange Sightings, Eerie True Ghost Stories And Unexplained Phenomena (True Paranormal ... True Ghost Stories And Hauntings) Speech and Phenomena: And Other Essays on Husserl's Theory of Signs (Studies in Phenomenology and Existential Philosophy) Explosive Effects and Applications (Shock Wave and High Pressure Phenomena) Microstructure and Properties of Ductile Iron and Compacted Graphite Iron Castings: The Effects of Mold Sand/Metal Interface Phenomena (SpringerBriefs in Materials) Bizarre True Stories: Weird and Unusual True Stories of the Paranormal, Strange Sightings, Eerie True Ghost Stories and Unexplained Phenomena AsapSCIENCE: Answers to the World's Weirdest Questions, Most Persistent Rumors, and Unexplained Phenomena

[Dmca](#)