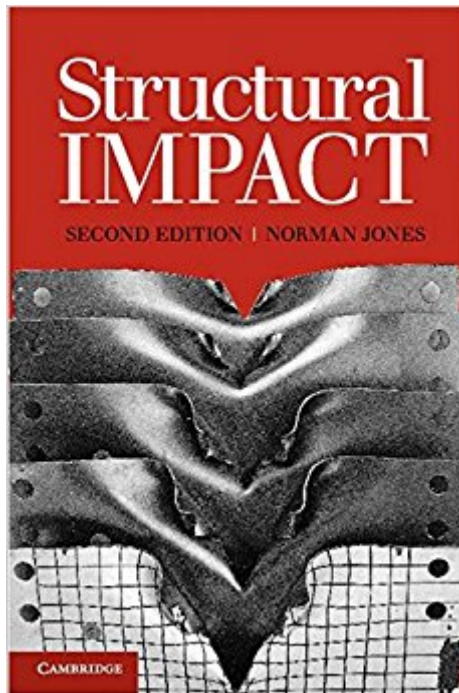


The book was found

Structural Impact



Synopsis

Structural Impact is concerned with the behaviour of structures and components subjected to large dynamic, impact and explosive loads which produce inelastic deformations and is of interest for safety calculations, hazard assessments and energy absorbing systems throughout industry. The first five chapters of this book introduce the rigid plastic methods of analysis for the static behaviour and the dynamic response of beams, plates and shells. These chapters develop the key features of the subject from an engineering viewpoint, and are followed by several chapters on various phenomena of importance to structural impact. The influence of transverse shear, rotatory inertia, finite displacements and dynamic material properties are introduced and studied in some detail. Dynamic progressive buckling, which develops in several energy absorbing systems, is then examined, while the phenomenon of dynamic plastic buckling is introduced in the penultimate chapter. The last chapter on the scaling laws is important for relating the response of small-scale experimental tests to the dynamic behaviour of full-scale prototypes. This text is invaluable to undergraduates, graduates, and professionals who want to learn more about the behaviour of structures subjected to large impact, dynamic and blast loadings producing an inelastic response.

Book Information

Hardcover: 604 pages

Publisher: Cambridge University Press; 2 edition (December 26, 2011)

Language: English

ISBN-10: 1107010969

ISBN-13: 978-1107010963

Product Dimensions: 7 x 1.3 x 10 inches

Shipping Weight: 2.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,841,687 in Books (See Top 100 in Books) #79 in [Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics](#) #931 in [Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural](#) #1121 in [Books > Science & Math > Physics > Mechanics](#)

Customer Reviews

"This book would be a useful resource for a graduate-level course...Recommended." - H. I. Epstein, University of Connecticut

Structural Impact is concerned with the behaviour of structures and components subjected to large dynamic, impact and explosive loads which produce inelastic deformations and is of interest for safety calculations, hazard assessments and energy absorbing systems throughout industry. This book introduces the rigid plastic methods of analysis for the dynamic response of beams, plates and shells, and discusses dynamic material properties, dynamic progressive buckling, which develops in several energy absorbing systems, and the phenomenon of dynamic plastic buckling. The author includes a chapter on the scaling laws because they are important for relating the response of small-scale experimental tests to the dynamic behaviour of full-scale prototypes.

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

Distal Impact Ejecta Layers: A Record of Large Impacts in Sedimentary Deposits (Impact Studies)
Structural Impact Strengthening of Reinforced Concrete Structures: Using Externally-Bonded Frp Composites in Structural and Civil Engineering (Woodhead Publishing Series in Civil and Structural Engineering)
Structural Dynamics of Earthquake Engineering: Theory and Application Using Mathematica and Matlab (Woodhead Publishing Series in Civil and Structural 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
The Techniques of Modern Structural Geology, Volume 3: Applications of Continuum Mechanics in Structural Geology
Impact (Phantom Air Combat Book 5)
Powerful Watercolor Landscapes: Tools for Painting with Impact
Tragic Design: The Impact of Bad Product Design and How to Fix It
Power of Feminist Art: The American Movement of the 1970's History and Impact
The Power of Feminist Art: The American Movement of the 1970S, History and Impact
The ACOA Trauma Syndrome: The Impact of Childhood Pain on Adult Relationships
ACOA Trauma Syndrome: The Impact of Childhood Pain on Adult Relationships
Exercise For Seniors - Get And Stay Fit For Life At Any Age (Seniors, Low Impact Exercise Book 1)
The Black Swan: Second Edition: The Impact of the Highly Improbable: With a new section: "On Robustness and Fragility" (Incerto)
The Ultimate Bodybuilding Cookbook: High-Impact Recipes to Make You Stronger Than Ever
Lyme Brain: The Impact of Lyme Disease on Your Brain, and How To Reclaim Your Smarts
The Medical Fitness Impact Plan: How To Reverse Chronic Disease & Degeneration While Building Your Bottom Line

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)