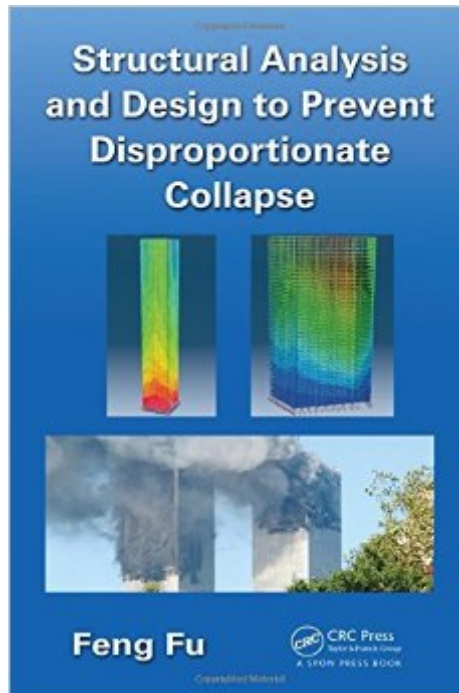


The book was found

Structural Analysis And Design To Prevent Disproportionate Collapse



Synopsis

Hard Guidance on Preventing Disproportionate Collapse Disproportionate collapse is a pressing issue in current design practice. Numerous causes are possible – especially forms of extreme loading, such as blast, fire, earthquake, or vehicle collisions. But it is the mechanism and its prevention which are of especial interest and concern. After the World Trade Center collapse in 2001, interest was sparked, and it is now imperative for a design engineer to have sufficient knowledge on both the analysis and design against disproportionate collapse. Detailed structural design guidance for preventing this has been developed in Europe and the US – such as BS5950 in the UK, and guidance from the Department of Defense and the General Services Administration in the US. However, Structural Analysis and Design to Prevent Disproportionate Collapse is the first systematic text in the market to help design engineers or structural engineering students to properly understand this guidance. Covers the design and analysis of a structure to prevent disproportionate collapse Provides an understanding of disproportionate collapse problems for different structures under different loads Contains detailed knowledge on the design and progressive collapse analysis of complex structures Incorporates ABAQUS®, ETABS, SAP2000, and Highlights 3D Modeling Techniques As progressive collapse analysis is a distinctive and complicated procedure, it normally requires an ability to use a modern commercial finite element package, and Structural Analysis and Design to Prevent Disproportionate Collapse features a detailed introduction to the use of FE programs such as ABAQUS® in progressive collapse analysis. In addition, case studies are performed using 3D FE models based on various types of structures such as multi-storey buildings, long-span space structures, and bridges. These models replicate real collapse incidents and prestigious construction projects, such as progressive collapse analysis of the Twin Towers, structural fire analysis of World Trade Center 7, blast analysis of the Murrah Federal Building and progressive collapse analysis of the Millau Viaduct, which help designers to fully understand the failure mechanisms and effective mitigation methods in practice.

Book Information

Hardcover: 202 pages

Publisher: CRC Press (March 3, 2016)

Language: English

ISBN-10: 1498706797

ISBN-13: 978-1498706797

Product Dimensions: 0.8 x 6.5 x 9.8 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #3,084,810 in Books (See Top 100 in Books) #119 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Seismic Design #1580 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural #6822 in Books > Crafts, Hobbies & Home > Home Improvement & Design > How-to & Home Improvements > Design & Construction

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

Structural Analysis and Design to Prevent Disproportionate Collapse The Perseid Collapse: A Post Apocalyptic/Dystopian EMP Thriller (The Perseid Collapse Series Book 1) 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] Anti-Cancer Diet: An Ultimate Guide to Reverse and Prevent Cancer Naturally! (anti-cancer diet, anti-cancer cookbook, anti-cancer diet recipes, reverse cancer, prevent cancer) Osteoporosis: How To Treat Osteoporosis- How To Prevent Osteoporosis- Along With Nutrition, Diet And Exercise For Osteoporosis (Reverse or Prevent Bone ... Supplement Treatments & Exercise Routines) Structural Stability of Steel: Concepts and Applications for Structural Engineers Kidney Stones: How To Treat Kidney Stones: How To Prevent Kidney Stones (Kidney Stone Treatment & Prevention Guide With All Natural & Medical Solutions To Remedy Pain Or Prevent In The First Place) Wind and Earthquake Resistant Buildings: Structural Analysis and Design (Civil and Environmental Engineering) The Techniques of Modern Structural Geology, Volume 3: Applications of Continuum Mechanics in Structural Geology Structural Analysis and Design of Tall Buildings: Steel and Composite Construction SEAOC Structural/Seismic Design Manual 2009 IBC Vol 2: Building Design Examples for Light-Frame, Tilt-up and Masonry Feng Shui: Wellness and Peace- Interior Design, Home Decorating and Home Design (peace, home design, feng shui, home, design, home decor, prosperity) Matrix Analysis of Structural Dynamics: Applications and Earthquake Engineering (Civil and Environmental Engineering) Structural Shell Analysis: Understanding and Application (Solid Mechanics and Its Applications) Structural Analysis: With Applications to Aerospace Structures (Solid Mechanics and Its Applications) Structural Analysis (Solid Mechanics and Its Applications) Random Vibrations: Analysis of Structural and Mechanical Systems Structural Loads Analysis for Commercial Aircraft: Theory and Practice (American History Through Literature) Theory of Nonlinear Structural Analysis: The Force Analogy Method for Earthquake Engineering

