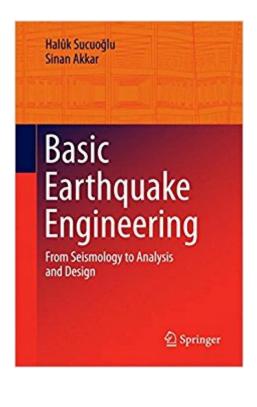


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Basic Earthquake Engineering: From Seismology To Analysis And Design





Synopsis

This book provides senior undergraduate students, master students and structural engineers who do not have a background in the field with core knowledge of structural earthquake engineering that will be invaluable in their professional lives. The basics of seismotectonics, including the causes, magnitude, and intensity of earthquakes, are first explained. Then the book introduces basic elements of seismic hazard analysis and presents the concept of a seismic hazard map for use in seismic design. Subsequent chapters cover key aspects of the response analysis of simple systems and building strucà Â-tures to earthquake ground motions, design spectrum, the adoption of seismic analysis procedures in seismic design codes, seismic design principles and seismic design of reinforced concrete structures. Helpful worked examples on seismic analysis of linear, nonlinear and base isolated buildings, earthquake-resistant design of frame and frame-shear wall systems are included, most of which can be solved using a hand calculator.

Book Information

Paperback: 288 pages Publisher: Springer; 2014 edition (May 10, 2014) Language: English ISBN-10: 3319010255 ISBN-13: 978-3319010250 Product Dimensions: 6.1 x 0.7 x 9.2 inches Shipping Weight: 15.2 ounces (View shipping rates and policies) Average Customer Review: Be the first to review this item Best Sellers Rank: #1,573,804 in Books (See Top 100 in Books) #80 inà Â Books > Engineering & Transportation > Engineering > Civil & Environmental > Seismic Design #204 inà Â Books > Science & Math > Chemistry > Geochemistry #233 inà Â Books > Science & Math > Earth Sciences > Seismology

Customer Reviews

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