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Structural Performance Probability-based Assessment

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The development of efficient methods for the assessment and management of civil structures is a major challenge from an economic, social, or environmental point of view. Tools for handling uncertainties in loads, geometry, material properties, construction and operating conditions are essential. This is especially important for modeling the effects of natural phenomena such as earthquakes, floods, hurricanes, or related loading factors on buildings.

Written for students, engineers, or researchers who want to implement a probabilistic, performance-based approach in their studies, this book presents theoretical concepts in a clear and concise way, each illustrated by simple examples. It also provides valuable information on the modeling of the random properties of loads and materials.

Although most books on reliability theory focus on theoretical concepts, this book attempts to give guidelines for applying these concepts in assessment and management of real, existing structures.

Ключевые слова:

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