



Fundamentals of Earthquake Engineering

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Wiley, 2008. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: About the Authors.Foreword.Preface and Acknowledgements.Introduction.List of Abbreviations.List of Symbols.1. Earthquake Characteristics.1.1 Causes of Earthquakes.1.1.1 Plate Tectonics Theory.1.1.2 Faulting.1.1.3 Seismic Waves.1.2 Measuring Earthquakes.1.2.1 Intensity.1.2.2 Magnitude.1.2.3 Intensity-Magnitude Relationships.1.3 Source-to-Site Effects.1.3.1 Directional Effects.1.3.2 Site Effects.1.3.3 Dispersion and Incoherence.1.4 Effects of Earthquakes.1.4.1 Damage to Buildings and Lifelines.1.4.2 Effects on the Ground.1.4.3 Human and Financial Losses.References.2. Response of Structures.2.1 General.2.2 Conceptual Framework.2.2.1 Definitions.2.2.2 Strength-versus Ductility-Based Response.2.2.3 Member-versus System-Level Consideration.2.2.4 Nature of Seismic Effects.2.2.5 Fundamental Response Quantities.2.2.6 Social-Economic Limit States.2.3 Structural Response Characteristics.2.3.1 Stiffness.2.3.2 Strength.2.3.3 Ductility.2.3.4 Overstrength.2.3.5 Damping.2.3.6 Relationship between Strength, Overstrength and Ductility: Force Reduction Factor 'Supply'.References.3. Earthquake Input Motion.3.1 General.3.2 Earthquake Occurrence and Return Period.3.3 Ground-Motion Models (Attenuation Relationships).3.3.1 Features of Strong-Motion Data for Attenuation Relationships.3.3.2 Attenuation Relationship for Europe.3.3.3 Attenuation Relationship for Japan.3.3.4 Attenuation Relationships for North America.3.3.5 Worldwide Attenuation Relationships.3.4 Earthquake

Reviews

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