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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 KNOWLEDGE OF SOIL MECHANICS -- Basic Principles in Soil Mechanics -- 2 PROBLEMS CONCERNING SHAKING OF SOFT GROUND UNDERGOING EARTHQUAKE LOADING -- Seismological Knowledge -- Wave Propagation in Elastic Medium -- Earthquake Effects -- Dynamic Response Analysis -- Pseudostatic Limit Equilibrium Analysis -- Field Investigation -- Dynamic Response of Complex-Modulus Model -- Laboratory Tests on Dynamic Properties of Soils -- Stress-Strain Models -- Application of Seismic Inertia Force -- Seismic Force Exerted on Structures -- Seismic Behavior of Slopes and Embankments -- Landslides -- Seismic Faults -- 3 LIQUEFACTION -- Features of Liquefaction-Induced Damages -- Mechanism of Onset of Liquefaction -- Assessment of Liquefaction Potential -- Behavior of Soil Undergoing Cyclic Undrained Loading -- In-Situ Tests on Liquefaction Potential of Subsoils -- Postliquefaction Behavior of Sandy Ground -- Immediate Detection of Liquefaction Damage and Emergency Action -- Permanent Displacement and Deformation of Liquefied Subsoil -- Prediction of Permanent Displacement Due to Liquefaction -- Mitigation of Liquefaction-Induced Damage -- Seismic Microzonation.
Sommario/riassunto	This book presents all issues of earthquake geotechnical engineering in a comprehensive way. It summarizes the present knowledge on

earthquake hazards and their causative mechanisms, experimental studies on nonlinear complex soil behaviour, an analysis to predict ground behaviour during earthquakes, field studies to determine nature of real ground as input data for analysis, and damage mitigation technologies. Information obtained from earthquake damage investigation (such as ground motion, landslides, earth pressure, fault action, or liquefaction) as well as data from laboratory tests and field investigation is supplied, together with exercises/questions.