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Sommario/riassunto

The topic of site characterization is unique to geotechnical engineering and owes its significance directly to the variability of the natural geologic deposits on the earth's surface. Thus, soil found below the ground at any construction site is different from soil located at another site--even an adjacent site. Geotechnical site characterization methods are utilized to evaluate the properties of natural subsurface deposits, over which any structure is supported. Proper site characterization requires an understanding of various field and laboratory investigation methods. The book discusses the suitability of various methods under different site conditions and the procedures for interpreting test results to derive design parameters. Recent developments regarding specialized site characterization techniques (such as geophysical methods) and techniques suitable for specific purposes (such as seismic hazard evaluation) are also included. Three recent case histories are included, where site characterization played a key role. The three disparate cases provide a broad coverage between them, including soft natural soil under static loading, coarse and fine-grained soil under seismic impact, and hazardous waste deposits under both static and seismic loading. Site investigation requirements of building codes are discussed and guidelines for preparing a typical site characterization report are presented. A final section addresses various ethical issues that are unique to the practice of site characterization. The book is aimed at the practicing geotechnical engineer, as well as advanced undergraduate and graduate students.
