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Soggetti	Geotechnical engineering Engineering geology Rock mechanics Soil mechanics Building construction Environmental engineering Civil engineering Foundations Geotechnical Engineering and Applied Earth Sciences Geoengineering Soil and Rock Mechanics Solid Construction Environmental Civil Engineering Foundation Engineering
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Observation Methods and Geotechnical Issues -- Types of Instrumentation -- Planning Geotechnical Instrumentation Projects -- Geotechnical Instrument Installation -- Monitoring, Data Verification, and Presentation -- Analyses and Performance Assessment -- Factors Affecting Measured Instrument Data -- Case Studies.
Sommario/riassunto	Geotechnical Instrumentation and Applications explains the geotechnical issues encountered in the implementation of construction projects dealing with ground, groundwater, and earth infrastructures,

including land reclamations, dams, embankments, landfill construction, excavations, and tunnelling. The book describes the types of geotechnical instrumentation available in the market and walks readers through the geotechnical issues usually encountered in construction projects and observational methods applying geotechnical instruments, planning, and implementation of geotechnical instrumentation projects. Detailed coverage of the calibration and installation process of geotechnical instruments, the verification of measured data, and the recording and documentation of as-built drawings of geotechnical instruments installed are presented. Coverage also includes methods of measurement, recommended monitoring frequencies for manual monitoring and methods of data processing and presentation, as well as analyses and interpretations of monitored data for performance assessment. Factors affecting measured instrument data are also discussed with a few examples. Case studies are presented with field data collected during the implementation of large-scale ground improvements and ground engineering projects involving extensive geotechnical instrumentation works. The book will be an ideal text for upper-undergraduate and graduate geotechnical engineering, foundation engineering, and soil mechanics courses and a hands-on reference for practitioners who apply geotechnical instrumentation in the construction industry. Written by experienced practicing engineers; Discusses geotechnical issues in ground, groundwater, and earth infrastructures; Includes numerous case studies on the application of geotechnical instrumentation and observational methods.