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Titolo	Encyclopedia of Engineering Geology // edited by Peter T. Bobrowsky, Brian Marker
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Descrizione fisica	1 online resource (631 illus., 491 illus. in color. eReference.)
Collana	Encyclopedia of Earth Sciences Series, , 1871-756X
Disciplina	624.151
Soggetti	Geotechnical engineering Engineering geology Soil science Environmental engineering Biotechnology Bioremediation Geomorphology Geotechnical Engineering and Applied Earth Sciences Geoengineering Soil Science Environmental Engineering/Biotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Abrasiveness -- Accreditation -- Acidity (pH) -- Acid mine drainage -- Aeolian processes -- Aerial photography -- Aeromagnetic survey -- Aggregate -- Aggregate tests -- Alkali silica reactivity -- Alluvial environments -- Alteration -- Anchoring -- Angle/area of influence -- Angle of internal friction -- Aquifer -- Aquitard -- Armour stone -- Artesian -- Artificial ground -- Atterburg Limits -- Avalanche -- Backfill -- Beach replenishment -- Bearing capacity -- Bedrock -- Biological weathering -- Blasting -- Borehole -- Borehole investigations -- Boulders -- Breakwaters -- Bridges -- Brownfield sites -- Building/dimension stone -- Bulk modulus -- California

bearing ratio -- Cambering -- Cantilever -- Capillarity -- Cap rock --
Casagrande test -- Casing -- Catchment -- Cement --
Characterization of soils -- Chemical weathering -- Chezy formula --
Classification of rocks -- Classification of soils -- Clay -- Climate
change -- Coal -- Coastal environments -- Cobbles -- Coefficient of
uniformity -- Cofferdams -- Cohesive soils -- Collapsing soils --
Compaction -- Compression -- Compressive soils -- Concrete --
Conductivity -- Cone penetrometer -- Consolidation -- Contamination
-- Corestones -- Corrosion -- Cross-Section -- Crushed rock --
Current action -- Cut and cover -- Cut and fill -- Cut off trench --
Dams -- Darcy's Law -- Deformation -- Demolition -- Density --
Deposition -- Desert environments -- Designing site investigations --
Dessication -- Deviatoric stress -- Dewatering -- Diagenesis --
Dilatancy -- Dispersivity -- Drainage -- Drilling -- Drilling hazards --
Durability -- Dyke -- Dynamic compaction/compression -- Earthquake
-- Earthquake intensity -- Earthquake magnitude -- Effective stress --
Elasticity -- Embankments -- Engineering geological mapping --
Engineering geology -- Engineering geomorphological mapping --
Engineering geomorphology -- Engineering properties --
Environmental assessment -- Environments -- Equipotential lines --
Erosion -- Ethics -- Evaporites -- Excavation -- Expansive soils --
Extensometer -- Facies -- Factor of safety -- Failure -- Faults -- Fills
-- Filtration -- Flooding -- Fluidization -- Fluid withdrawal -- Fluvial
environments -- Foundations -- Gabions -- Gases -- Geochemistry --
Geological hazards -- Geological structures -- Geology -- Geophysical
methods -- Geostatic stress -- Geotechnical engineering --
Geotextiles -- Geothermal energy -- GIS -- Glacial environments --
Gradation/grading -- Gravel -- Ground preparation -- Ground shaking
-- Groundwater -- Groundwater rebound -- Grout/grouting -- Hazard
-- Hazard assessment -- Health and safety -- Hooke's Law --
Hydraulic action -- Hydraulic fracturing -- Hydrocompaction --
Hydrogeology -- Hydrology -- Hydrothermal alteration -- IAEG -- IAH
-- Igneous rocks -- Inclinator -- Induced seismicity -- Infiltration
-- Infrastructure -- InSAR -- Instrumentation -- ISRM -- ISSMGE --
Jacking test -- Jetties -- Karst -- Kozeny-Carmen equation --
Lacustrine environments -- Landfill -- Landforms -- Land use --
Landslides -- Laplace equation -- Lateral pressure -- Levees -- LiDAR
-- Limestone -- Liners -- Liquefaction -- Liquid limit -- Loess --
Logging -- Manning formula -- Marine environments -- Mass
movement -- Mechanical properties -- Metamorphic rocks -- Mine
closure -- Mineralization -- Mining -- Mining hazards -- Modelling --
Modulus of deformation -- Modulus of elasticity -- Mohr circle --
Mohr-Coulomb failure envelope -- Monitoring -- Mountain
environments -- Near shore structures -- Neutral pressure -- Non-
cohesive soils -- Normal stress -- Organic soils -- Peels -- Percolation
-- Permafrost -- Petrographic analysis -- Physical weathering --
Piezometer -- Photogrammetry -- Pipes/pipelines -- Plasticity index
-- Plastic limit -- Poisson's ratio -- Pore pressure -- Positive pressure
-- Probability -- Professional practice -- Pressure -- Quick clay --
Quick sand -- Reclamation -- Reduced stress -- Remote sensing --
Reservoirs -- Residual soils -- Retaining structures -- Risk assessment
-- Risk mapping -- Rock bolts -- Rock field tests -- Rock laboratory
tests -- Rock mass classification -- Rock mechanics -- Rock properties
-- Run off -- Sabkha -- Saline soils -- Sand -- Saturation -- Sea level
-- Sedimentary rocks -- Sediments -- Shale -- Shear modulus --
Shear strength -- Shear stress -- Shear zone -- Shotcrete -- Silt --
Sinkholes -- Site investigation -- Slurry trenches -- Soil field tests --
Soil laboratory tests -- Soil mechanics -- Soil nailing -- Soil properties

-- Stabilization -- Strain -- Strength -- Stress -- Subsidence --
Subsurface exploration -- Surface rupture -- Surveying --
Swelling/shrinkage of clays -- Tailings -- Tension scars -- Testing --
Thermistor -- Tiltmeter -- Tropical environments -- Tunnels --
Vegetation cover -- Velocity ratio -- Vibrations -- Voids -- Volcanic
environments -- Waste -- Waste management -- Water -- Water
testing -- Wells -- Young's modulus.

Sommario/riassunto

This volume addresses the multi-disciplinary topic of engineering geology and the environment, one of the fastest growing, most relevant and applied fields of research and study within the geosciences. It covers the fundamentals of geology and engineering where the two fields overlap and, in addition, highlights specialized topics that address principles, concepts and paradigms of the discipline, including operational terms, materials, tools, techniques and methods as well as processes, procedures and implications. A number of well known and respected international experts contributed to this authoritative volume, thereby ensuring proper geographic representation, professional credibility and reliability. This superb volume provides a dependable and ready source of information on approximately 300 topical entries relevant to all aspects of engineering geology. Extensive illustrations, figures, images, tables and detailed bibliographic citations ensure that the comprehensively defined contributions are broadly and clearly explained. The Encyclopedia of Engineering Geology provides a ready source of reference for several fields of study and practice including civil engineers, geologists, physical geographers, architects, hazards specialists, hydrologists, geotechnicians, geophysicists, geomorphologists, planners, resource explorers, and many others. As a key library reference, this book is an essential technical source for undergraduate and graduate students in their research. Teachers/professors can rely on it as the final authority and the first source of reference on engineering geology related studies as it provides an exceptional resource to train and educate the next generation of practitioners.
