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Soggetti	Geotechnical engineering Engineering geology Engineering—Geology Foundations Hydraulics Geotechnical Engineering & Applied Earth Sciences Geoengineering, Foundations, Hydraulics
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Nota di contenuto	1.Numerical Simulation and Parametric Study of a Single Pile in Clay Layer to Examine the Effect of Loading on Settlements and Skin Friction Distribution -- 2.Study on Low-Strength Biocemented Sands Using a Temperature-controlled MICP (Microbially Induced Calcite Precipitation) method -- 3.Curing Behaviour of Lightly Solidified Clays Monitored with Bender Element and Electrical Conductivity Measurements -- 4. Effect of grain content on the sandstone properties using biconcave bond model of DEM -- 5.Numerical Modeling of Embankment Settlement over Soft Soils -- 6.Impact Analysis of Metro Tunnel Construction on Groundwater Flow in Nanchang,China -- 7.Boundary Effects of Pile Cap on the Integrity Testing of Group Piles -- 8.Soft Soil Improvement using Rigid Inclusions: Toward an Application for

Transport Infrastructure Construction in Vietnam -- 9.Mechanical and Deformation Properties of Deep Foundation Pit Supporting System Subjected to Asymmetric Loadings -- 10.Modelling Linear Viscoelastic Behaviour of Kanpur Local Soil Using Prony Series, Parameter Fitting -- 11.A Macroelement Approach for Non-linear Response of Offshore Skirted Footings -- 12.The Effect of Using Desert Sands and Cement to Stabilize The Base Course Layer of Roads in Libya -- 13.Shaft Capacity Assessment of Recharge Impulse Technology Piles -- 14.Mechanistic Analysis of Subgrade Soil Reinforced with Modified Jute Geotextile -- 15.A Parametric Study of Deep Mixing Columns and Fibre Reinforced Load Transfer Platform Supported Embankments -- 16.Flexural Behavior of RC Two Way Slabs Made with Crushed Melted Bricks as Coarse Aggregate -- 17.A Novel Finite Element Model for Modeling Pile Dynamics -- 18.The Spectral Finite Element Method for Simulating Wave Propagation in Viscoelastic Soils -- 19.Train Internal Noise due to Wheel-Rail Interaction -- 20.Sustainable Use of Reclaimed Ballast Rejects for Construction of Rail Corridor Access Road - an Australian Experience -- 21.Potassium Aluminate Geo-polymerisation of Acidic Gold Mine Tailings.

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### Sommario/riassunto

This book presents new studies by a group of researchers and practitioners to address many geotechnical challenges, based on the state-of-the-art practices, innovative technologies, new research results and case histories in construction and design towards safer infrastructures. The book provides an advancement in technologies to incorporate the impact of global climate change, world's population is rising fast and the rate of urbanization on civil infrastructures. Papers were selected from the 5th GeoChina International Conference 2018 – Civil Infrastructures Confronting Severe Weathers and Climate Changes: From Failure to Sustainability, held on July 23 to 25, 2018 in HangZhou, China.

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