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Titolo	New Solutions for Challenges in Applications of New Materials and Geotechnical Issues : Proceedings of 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 // edited by Shuying Wang, Yu Xinbao, Moses Tefe
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Nota di contenuto	1.Modified Duncan-Chang model and mechanics parameter determination based on triaxial consolidated drained tests of Guiyang red clay in China -- 2.Hydro-thermal properties of the unsaturated soil -- 3.Gas bubble nucleation and migration in soils - Pore-network model simulation -- 4.A Coupled Chemo-mechanical Analysis of the Dissolution-dominated Sinkholes -- 5.Simplified Methodology for Stiffness Estimation of Double D Shaped Caisson Foundations -- 6. Modelling of hydro-mechanical coupling in land uplift due to groundwater recharge -- 7.Numerical Modeling of Reinforced Stone Columns and Bamboo Grid Mattress for Supporting Causeway Embankment on Soft Soil Bed -- 8.A Three Dimensional Discrete Constitutive Model for Over Coarse Grained Soil -- 9.Optimization

charge scheme for multi-row ring blasting design adopting equilateral triangle layout based on modified Harries' mathematical model from a fragmentation perspective: a case study -- 10.The Impact of Geocell Element Dimensions on Circular Behavior -- 11.Soil Reinforcement and Slope Stabilization Using Natural Jute Fibres -- 12.Utilisation of Geotextile fabric and Permeable Concrete to Prevent Coastal Erosion -- 13.Assessment of Mass Movements and Critical Phreatic Levels in Soil Slopes -- 14.Study on surface deformation caused by comprehensive mining in a coal mine in Northwest China -- 15.Settlement of Composite Foundation with Sparse PTC (pre-stressed tubular concrete) Capped-Piles under Embankment -- 16.Ground motion amplification induced by shallow circular tunnel in soft soil -- 17.A Case Study of Roadway Embankment Construction over Existing Sewers in Montreal, Canada.

Sommario/riassunto

This book include research studies which deal with the attempts to address new solutions for challenges in geotechnical engineering such as characterization of new materials, application of glass fibre, geotextile fabric and permeable concrete, new numerical methods for traditional problems and some other geotechnical issues that are becoming quite relevant in today's world. The book adds to the geotechnical engineering field which still bears lots of big challenges. It contributes to make the civil infrastructures more sustainable using new technologies and materials that have been proposed and applied in various fields. 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.
