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Nota di contenuto	Chapter 1. Effect of Microscopic Properties on the Mechanical Behavior of Gravelly Soil by Using DEM -- Chapter 2. Research on Large Deformation Control Measures of Surrounding Rock in Jointed and Altered Granite Stratum of High Ground Stress Tunnel -- Chapter 3. Multi-channel Singular Spectrum Analysis of Geocenter Motion and Precise Prediction of Earth's Motion -- Chapter 4. Monitoring of the Turag River Dyke in Dhaka City Using Ground Penetrating Radar (GPR): A New Approach of Flood Risk Reduction in Bangladesh -- Chapter 5. Relationships between Compressive and Splitting Tensile Strengths of Cast and Core High-Strength Concrete Cylinders -- Chapter 6. Predicting the Small Strain Stiffness of a Calcareous Sand Considering Sample Preparation Method and Stress Path -- Chapter 7. Explicit

Integration and Implementation of State-dependent Constitutive Model for Rockfill Materials -- Chapter 8. Expander Bodies Provide Increased Axial Resistance to Full Drilled Displacement Piles for World Trade Center Towers in Bolivia -- Chapter 9. Utilization and Regulations of Innovative Technology to Improve Road Safety via Drivers' Warnings and Enforcement.

Sommario/riassunto

Advancement in design and construction to embrace the impact of rapid global urbanization growth in infrastructure development is inevitable. The proceedings include many smart and green solutions for civil infrastructures, incorporating geotechnical and engineering geology aspects. The articles presented in this volume are attempts made by the 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 and cost effective infrastructures. This volume covers a wide range of topics with direct relevance to people within the broad field of geomechanics, including consultants, contractors, academics, materials suppliers and the owners and operators of civil infrastructures. Many papers associated with numerical modeling of transport infrastructure, advanced soil and rock testing, field monitoring, tunnelling, expansive soils, geo-center motion, triaxial and dynamic testing, piles etc. are included. The content is based on the contributions to the 6th GeoChina International Conference on Civil & Transportation Infrastructures: From Engineering to Smart & Green Life Cycle Solutions -- Nanchang, China, 2021.