Record Nr. UNINA9910492142703321 Advanced geotechnical and structural engineering in the design and **Titolo** performance of sustainable civil infrastructures: proceedings of the 6th GeoChina International Conference on Civil & Transportation Infrastructures: from Engineering to Smart & Green Life Cycle Solutions -- Nanchang, China, 2021 // Jose Neves, Bitang Zhu, Paulus Rahardjo. editors Cham, Switzerland:,: Springer,, [2021] Pubbl/distr/stampa ©2021 **ISBN** 3-030-80155-1 Descrizione fisica 1 online resource (133 pages) Sustainable civil infrastructures Collana Disciplina 624.151 Geotechnical engineering Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Includes bibliographical references and index. Nota di bibliografia Intro -- Introduction -- Contents -- About the Editors -- Resiliency Nota di contenuto of Power Grid Infrastructure Under Extreme Hazards - Observations and Lessons Learned from Hurricane Maria in Puerto Rico -- 1 Introduction -- 2 Maria's Path and Impacts -- 3 Investigation of Damaged Structures in Puerto Rico -- 4 Puerto Rico's Power Grid Situation After Maria -- 5 Discussion -- 5.1 Storm Effect Correlations -- 6 Power Structure Hardening Recommendations -- 7 Conclusions --References -- Methodology that Combines Multi-criteria Methods for Decision-Making, Hierarchical Analytical Process and the Goal Programming, and Their Impact in the Sustainability Evaluation of Hydroelectric Projects in Mexico -- 1 Introduction -- 1.1 Hydroelectric Sustainability -- 1.2 Hydroelectricity in Mexico -- 1.3 Research Question -- 2 Methodological Framework -- 2.1 Phase I: Correlational Method -- 2.2 Phase II: Documentary Analysis -- 3 Materials and Methods -- 3.1 Measuring Instrument -- 3.2 Documentary Analysis -- 4 Results -- 4.1 Results by Homogeneous

Expert Groups by Specialty -- 4.2 Documentary Analysis -- 4.3 Model Synthesis -- 4.4 Sensitivity Analysis -- 5 Conclusions -- References -- A State of the Art Review of Buckling Restrained Brace: History,

Application, and Design -- 1 Introduction -- 2 Literature Review -- 3 Differential Equation Governing Stability of BRB Under Axial Compression [21] -- 4 The Relation Between Elastic Modulus of Casing/Mortar and Core Buckling Stress [21] -- 5 Conclusion -- References: -- Characteristics of Lithely (Flexible) Arch Bridges and Case Studies from Satara -- 1 Introduction -- 2 Literature Review -- 3 Overview of Study Area -- 4 Materials and Methods Used for the Construction of the Lithely Arch Bridge -- 5 Observations and Discussions -- References.

The Design Parameters and Quality Requirements of Jet Grout Columns in the Stabilization of a Sloping Bermed Excavation -- 1 Introduction --2 The Project Site -- 3 Study of the Proof Coring Results of the Working JGC -- 4 Discussions and Conclusions -- References -- Performance of the Jet Grouted Sloping Berm as a Support to the Diaphragm Wall in an Excavation -- 1 Introduction -- 2 Basic Design Concepts -- 3 Design of a Jet Grouted Sloping Berm to Support the Diaphragm Wall --4 Performance of the Sloping Bermed Excavation -- 5 Conclusions --References -- Influence of Lime and Coal Gangue on the CBR Behavior of Expansive Soil -- 1 Introduction -- 2 Materials and Methodology --3 Results and Discussions -- 3.1 Effect of Coal Gangue -- 3.2 Effect of Lime Addition -- 3.3 Effect of Curing Period -- 3.4 Effect of Coal Gangue on Elastic Moduli -- 3.5 Correlation Between CBR and Resilient Modulus Values -- 4 Conclusions -- References -- Field Soil Electrical Resistivity Measurements of Some Soil of Irag -- 1 Introduction -- 2 Subsurface Ground Conditions of the Study Area -- 3 Electrical Resistivity Test -- 4 Field Soil Electrical Resistivity Results -- 5 Discussion -- 6 Conclusions -- References -- Author Index.