1. Record Nr. UNINA9910566464503321 Autore Vieira Castorina Silva **Titolo** Sustainability in Geotechnics: The Use of Environmentally Friendly Materials Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022 Pubbl/distr/stampa 1 electronic resource (448 p.) Descrizione fisica Soggetti Technology: general issues History of engineering & technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Implementing environmentally friendly and cost-effective solutions is a Sommario/riassunto pressing need to fulfill the United Nations Sustainable Development Goals (SDGs) set to be achieved by 2030. Thus, the requirement to execute the design, construction and maintenance of civil engineering structures and infrastructures as sustainably as possible are big challenges currently faced by civil and geotechnical engineers. This book, compiling the papers published during the 2020-2021 biennium in the Topical Collection, "Sustainability in Geotechnics: The Use of Environmentally Friendly Materials", is intended help tackle those challenges. Several topics are covered by the 23 papers published herein, including: sustainable ground improvement techniques; replacement of raw materials such as soils and aggregates by recycled materials; soil reinforcement with alternative materials; sustainable solutions using geosynthetics; low-carbon solutions for stabilization of contaminated soils; and bioengineering techniques to prevent soil

erosion. The Guest Editor expects that this book can be very useful towards the achievement of more environmentally friendly solutions, in

particular in the field of geotechnical engineering.