Record Nr. UNINA9910683380803321 Soil-Structure Interaction / / edited by Dominic E.L Ong, Wen-Chieh **Titolo** Cheng, Hannah Zhou Pubbl/distr/stampa Basel, Switzerland:,: MDPI - Multidisciplinary Digital Publishing Institute, , 2023 **ISBN** 3-0365-6827-1 Descrizione fisica 1 online resource (246 pages) Disciplina 631.43 Soggetti Soils - Analysis Soil structure Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia It is crucial that scientists and engineers develop their expertise and Sommario/riassunto capability through research and practice to quantify the interaction of infrastructure with the surroundings and the ground upon which they are founded. Therefore, the engineering concept 'soil-structure interaction' forms an integral part of delivering successful project outcomes. As the Lead and Honorary Editor for this Special Issue, Soil-Structure Interaction, I cordially invited the submission of esteemed articles related to recent projects, research, or case studies. These articles detail how geosciences (soil, rock, ground water, geochemistry, geology, hydrogeology, surface run-off, rain, wind, and temperature) directly interact with and impact the performance of human-made structures, buildings, or infrastructure through the following aspects: i Underground construction; ii Innovative ground improvement methods; iii Geological explorations and interpretation; iv Instrumentation and field observational method; v Use of artificial intelligence or algorithms;

vi Forensic engineering or inverse-analysis methods; vii Geophysical

methods for soil or rock characterization; viii Advancement in laboratory and field testing of geomaterials; ix Advancement in numerical analysis; x Advancement in multi-disciplinary design

theories, codes of practice, and engineering education.