

|                         |   |
|-------------------------|---|
| 1. Record Nr.           | UNINA9910983481203321   |
| Titolo                  | Proceedings of the 5th International Conference on Transportation Geotechnics (ICTG) 2024, Volume 6 : Fundamentals of Road, Rail, and Harbour Geotechnics // edited by Cholachat Rujikiatkamjorn, Jianfeng Xue, Buddhima Indraratna   |
| Pubbl/distr/stampa      | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025  |
| ISBN                    | 9789819782338<br>9819782333   |
| Edizione                | [1st ed. 2025.]   |
| Descrizione fisica      | 1 online resource (XIV, 412 p. 236 illus., 202 illus. in color.)  |
| Collana                 | Lecture Notes in Civil Engineering, , 2366-2565 ; ; 407   |
| Disciplina              | 624.151   |
| Soggetti                | Engineering geology<br>Geotechnical engineering<br>Transportation engineering<br>Traffic engineering<br>Geoengineering<br>Geotechnical Engineering and Applied Earth Sciences<br>Transportation Technology and Traffic Engineering  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Nota di bibliografia    | Includes bibliographical references.  |
| Nota di contenuto       | Chapter 1: A coupled CFD-DEM approach to examine the clogging of granular medium by cohesive soil -- Chapter 2: Effect of principal stress rotation on plastic strain accumulation in granular materials -- Chapter 3: DEM Study on the Dynamic Performance of a fouled Ballasted Track under Repeated Traffic Loading -- Chapter 4: Numerical analysis for ballasted rail tracks: Coupled DEM-FEM approach -- Chapter 5: Barrier systems to protect critical transportation infrastructure from Impact-Induced ground vibrations -- Chapter 6: Numerical Modelling of Jointed Rock Foundation under Heavy Haul Train Loading -- Chapter 7: The effects of temperature on micromechanical properties of hydrated Na-montmorillonite: molecular dynamics simulation -- Chapter 8: A GPU-based DEM Contact Detection Method for Geotechnical Dense Granular Materials -- Chapter 9: Effect of train-induced vibrations on pore water pressure |

development within liquefiable soils -- Chapter 10: Performance of Bounding Surface Plasticity in the Prediction of Progressive Soil Deformation in Integral Bridge Approaches. etc.

---

#### Sommario/riassunto

This book presents select proceedings of the 5th International Conference on Transportation Geotechnics (ICTG 2024). It includes papers on ground improvement methodologies, dynamics of transportation infrastructure, and geotechnical intricacies of mega projects. It covers topics such as underground transportation systems and heights of airfields and pavements. This book discusses diverse thematic landscapes, offering profound explorations into sensor technologies, data analytics, and machine learning applications. The publication highlights advanced practices, latest developments, and efforts to foster collaboration, innovation, and sustainable solutions for transportation infrastructure worldwide. The book can be a valuable reference for researchers and professionals interested in transportation geotechnics.

---