

# Special Issue on “Advancements in Geomechanics and Engineering”

## Preface

We would like to present the special issue of the international journal *Geomechanics and Engineering* (ISSN: 2005-307X) on *Advancements in Geomechanics and Engineering*. As *Geomechanics and Engineering* has strong reputation for quality in the field of soil mechanics and geotechnical engineering, this special issue also devotes itself to introducing validated emerging technologies from laboratory-scale studies to field applications.

This special issue is an extension of the success of the 2022 International Conference on Geomechanics and Engineering (ICGE22) held on August 18, in Seoul, Republic of Korea. Following the conference, papers that focus on cutting-edge and environmentally friendly geotechnical engineering methods were chosen, with fully updated paper submission and peer-review procedures. In this spirit, 11 scientific articles are presented in this volume as:

- Effect of microbial biopolymers on the sedimentation behavior of kaolinite
- Surface erosion of MICP-treated sands: Erosion function apparatus tests...
- Effect of variation of water retention characteristics due to leachate circulation...
- Cost-effective method for reducing local failure of floodwalls verified by centrifuge tests
- Application of UAV images for rainfall-induced slope stability analysis...
- Estimation of liquid limit of cohesive soil using video-based vibration measurement
- Prediction of California bearing ratio (CBR) for coarse- and fine-grained soils...
- Numerical study on stability and deformation of retaining wall...
- Subsurface anomaly detection utilizing synthetic GPR images and deep learning model
- Ultrasonically enhancing flowability of cement grout for reinforcing rock joint...
- Utilization of carrageenan as an alternative eco-biopolymer for improving the strength...

Each paper offers insightful research and suggestions regarding how to advance geomechanics and geotechnical engineering. We value each and every author's devoted research, as well as the reviewers' sincere contributions to peer reviews.

We believe that this excellent collection of articles will be a useful tool for readers of *Geomechanics and Engineering* and will inspire more investigation into the dynamic field of cutting-edge and environmentally responsible geotechnical engineering.

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### Guest Editors

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