

JGS Special Publication IX

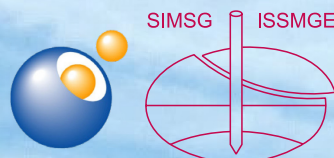
Third International Symposium on Coupled Phenomena in Environmental Geotechnics

October 20–21, 2021

Kyoto University, Kyoto, Japan

Edited by

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Preface

Coupled Phenomena in Environmental Geotechnics (CPEG) is a quadrennial event organized under the auspices of the Technical Committee No.215 on Environmental Geotechnics of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), with a focus on coupled processes (e.g., chemical-physical, bio-physical, multiphase flow, etc.) in environmental geotechnics. The first symposium of the series was held in Torino, Italy, in 2013, and the second one was in Leeds, UK, in 2017. The third symposium, CPEG2020, was conjointly organized by the Japanese Geotechnical Society (JGS) and Kyoto University.

CPEG2020 was supposed to be held at the Clock Tower Centennial Hall of Kyoto University's main campus on October 29–30, 2020, instead of 2021, in order to avoid conflict with other ISSMGE events. However, it was postponed twice due to the COVID-19 pandemic, the first time to March 17–18, 2021, and the second time to October 20–21, 2021, with the expectation of holding an on-site symposium. Despite the postponement, the pandemic was anticipated to continue until the subsequent year. Therefore, in June 2021, the organizers decided to hold the symposium on October 20–21, 2021, with all the presentations and exchanges held online. The symposium included four keynote lectures by Prof. Craig Benson (USA), Prof. Toru Inui (Japan), Prof. Catherine Mulligan (Canada) and Dr. Dimitrios Zekkos (USA). Additionally, there was a special presentation by Prof. Abdelmalek Bouazza (Australia) and a special session on column testing by Prof. Charles Shackelford (USA) and Dr. Tetsuo Yasutaka (Japan).

One hundred and fifty-three abstracts were originally submitted to the symposium. The submitted papers were subjected to rigorous peer review by at least two reviewers. About 80 papers were accepted for publication in the proceedings, including the written version of the keynote lectures, and were published in October 2021 in JGS Special Publication (JGSSP) volume 9. The proceedings constitute a wide array of articles delivered by authors from 16 countries, including Australia, Canada, China, Finland, France, India, Italy, Japan, Nigeria, Poland, Russia, Saudi Arabia, Serbia, the United Kingdom, the United States of America and Vietnam. The topics featured in these proceedings were divided into eight broad themes that deal with:

- Bentonite-based barriers
- Radioactive wastes
- Waste landfills
- Environmental monitoring and risk assessment
- Geotechnical and environmental characterization
- Remediation and contaminant characterization
- Soil-water-chemical interactions
- Energy geotechnics

It is hoped that the proceedings of CPEG2020 will be of interest to developers, practitioners, consultants, academics, researchers and students of this field.

The editors would like to thank all authors and participants who contributed to making this CPEG successful and fruitful, filled with enriching presentations and exchanges. Special gratitude is expressed to the reviewers of the papers for their time and efforts in ensuring a high standard of the proceedings. A word of thanks is also expressed to those who served as session chairs. We also appreciate the Organizing Committee and ISSMGE's TC215 for their great efforts even under the COVID-19 pandemic. The ISSMGE Conference Review Platform was used for handling the review works. The support of Dr. D. Zekkos and Mr. Alexandros Tsavalas regarding the use of this system is greatly appreciated. Financial support from Obayashi Foundation made the conference registration fee and paper publication free to the attendees, and it is truly appreciated. Our sincere appreciation to Dr. Lincoln W. Gathuka for his great contributions to the success of the symposium.

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