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Liangtong Zhan · Yunmin Chen  
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# Proceedings of the 8th International Congress on Environmental Geotechnics Volume 2

Towards a Sustainable Geoenvironment

 Springer

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# Preface

Issues associated with environmental geotechnics continue to be a major preoccupation for governments, public and private organizations and the general community around the world. With the support from the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) and the Technical Committee of Environmental Geotechnics (TC215), the Environmental Geotechnics Congress Series has been held regularly since 1994 (Canada 1994; Japan 1996; Portugal 1998; Brazil 2002; UK 2006; India 2010; Australia 2014) and established itself as a highly influential forum for exchange and discussion on the subject. Following the success of 7ICEG in Melbourne, 2014, the 8th International Congress on Environmental Geotechnics (8ICEG) held on 28 October–1 November 2018 in Hangzhou, China, continues tackling challenging issues in the broad range of environmental geotechnics.

The congress theme is “Towards a Sustainable Geoenvironment”. “Sustainable Development is to meet the needs of the present without compromising the ability of future generations to meet their own needs”. Geoenvironment is a specific compartment of the environment and comprises portions of geosphere, hydrosphere and biosphere. Under this theme, the congress will cover a broad range of topics and will provide an excellent opportunity for academics, engineers, scientists, government officials, regulators and planners to present, discuss and exchange the latest advancements and developments in the research and application of environmental geotechnics.

Out of 340 abstracts received, 8ICEG chose 255 full manuscripts and 6 extended abstracts submitted from 28 countries and regions in 5 continents for publication in this conference proceedings, which provides a platform for scholars and practitioners to share and exchange their experiences with their peers, especially with those from developing countries with impending geoenvironmental issues. There are several features of the proceedings:

- Eleven comprehensive manuscripts, together with 6 extended abstracts, were contributed from the Plenary Lecturers from 11 countries, which includes 8 academicians, 4 editors of major journals and 6 chairpersons of international

renowned organizations. Their contributions provided in-depth insights into the chosen topics.

- Emerging topics, such as sustainability, bio-geoengineering and geoenvironmental aspects in energy geotechnics have strong appearance, which suggests developments towards a better living geoenvironment is the focus for future developments.
- Manuscripts from “Belt and Road Countries” emerged and showed strong presence in 8ICEG, including 24 manuscripts from 10 countries. Environmental problems in those countries take high priority for the governments.

Financial supports from the National Natural Science Foundation of China (41842018) and the Chinese Program of Introducing Talents of Discipline to University (the 111 Project, B18047) are acknowledged. The time and efforts of the associate editors and the reviewers for the proceedings are greatly appreciated.

We hope you enjoy 8ICEG in the beautiful city of Hangzhou!

Sincerely yours,

Liangtong Zhan  
Yunmin Chen  
Abdelmalek Bouazza  
Editors of the Proceedings of 8ICEG

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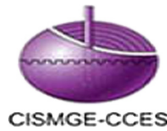
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## List of Plenary Lectures

Speakers	Affiliation	Topic
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<b>Kerry Rowe Lecture</b>		
Mario Manassero	Politecnico di Torino, Italy	On the Fabric and State Parameters of Active Clays for Contaminant Control
<b>Keynote Lectures</b>		
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Ningwu Chang	California EPA, USA	Brownfield Redevelopment at Contaminated Landfill Site
Yunmin Chen	Zhejiang University, China	Waste Mechanics and Sustainable Landfilling Technology: Comparison between HFWC and LF WC MSWs
Hywel Thomas	Cardiff University, UK	Deep Ground and Energy: Carbon Sequestration and Coal Gasification
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Pierre Delage	Ecole des ponts Paris Tech, France	Micro-macro Effects in Bentonite Engineered Barriers for Radioactive Waste Disposal
Nathalie Touze Foltz	Irstea, France	Performance Issues of Barrier Systems for Landfills
Stephan Jeffries	Environmental Geotechnics Limited, UK	Low Permeability Vertical Barriers: The State of the Art and the Research Needs for the Future

Takeshi Katsumi	Kyoto University, Japan	Towards Sustainable Soil Management Reuse of Excavated Soils with Natural Contamination
Ed Kavazanjian	Arizona State University, USA	Biogeotechnical Engineering Applications for Environmental Protection and Restoration
Olaf Kolditz	Dresden University of Technology, Germany	Workflows in Environmental Geotechnics: Status-Quo and Perspectives
William Powrie	University of Southampton, UK	Climate and Vegetation Impacts on Infrastructure Cuttings and Embankments
Krishna Reddy	University of Illinois at Chicago, USA	Risk, Sustainability and Resiliency Considerations in Polluted Site Remediation
Devendra Narain Singh	Indian Institute of Technology, India	Centrifuge Modeling of Contaminant Transport in Geomaterials
Rainer Stegmann	Hamburg University, Germany	Development of Waste Management in The Last 30 Years
Antonio Thome	University of Passo Fundo, Brazil	Remediation Technologies Applied in Polluted Soils: New Perspectives in This Field
Fuming Wang	Zhengzhou University, China	Jet Grouting for Leakage Prevention
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