

Conference reports

The 13th Chinese National Conference on Soil Mechanics and Geotechnical Engineering (CNCMGE), Tianjin, China

The Chinese National Conference on Soil Mechanics and Geotechnical Engineering (CNCMGE) is held every four years and has become the premier event on the soil mechanics and geotechnical engineering in China. The 13th CNCMGE held in Tianjin, China, on 18 - 21 July 2019, was hosted by the Chinese Institution for Soil Mechanics and Geotechnical Engineering (CISMGE) and organized by Tianjin University (see Photo 1), the Tianjin Civil Engineering Society, the Technical Committee of Soil Mechanics and the Underground Engineering of the Architectural Society of Tianjin. Tianjin University, founded in 1895 as Peiyang University, is the first modern institution of higher education in of China. Tianjin University's 123-year history is the epitome of the progress of modern Chinese higher education, embodying the Chinese people's indomitability through challenging times. During its growth spanning three centuries, the University has been a pioneer in several fields, from the first aero engine in China to the first Hydraulics Laboratory established in China.



Photo 1. Tianjin university

The 13th CNCMGE with the main theme of “Quality Improvement and Sustainability Development of Geotechnical Engineering” provided a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of soil mechanics and geotechnical engineering.

The conference organizing committee chair, Prof. Gang ZHENG from Tianjin University who is also the vice president of the CISMGE and chair of TC219 “System Performance”, ISSMGE, gave speech to warm welcome all the attendees on the opening ceremony. Prof. Charles W.W. NG, the President of ISSMGE, and Prof. Jianmin ZHANG (see Photo 2), the President of CISMGE, gave their speeches at the Opening Ceremony of the conference after the address made by Prof. ZHENG (refer to Photo 3). In addition, Prof. Charles NG presented ISSMGE souvenirs (two ties and a scarf) to Prof. Jianmin ZHANG, Prof. Gang ZHENG, Prof. Jianhong ZHANG and Secretary General of CISMGE, respectively, for their significant contributions to the Soil Mechanics and Geotechnical Engineering in China. (refer to Photo 4).

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Photo 2. The President of CISMGE, Prof. Jianmin ZHANG, gave his speech to warm welcome all the attendees on the opening ceremony



Photo 3. The conference organizing committee chair, Prof. Gang ZHENG, gave his speech to warm welcome all the attendees on the opening ceremony

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Photo 4. Presentation ceremony of souvenirs (ISSMGE ties and scarf) by the president of ISSMGE, Prof. Charles NG, to Profs Jianmin ZHANG and Gang ZHENG on his left and a scarf to Prof. Jianhong ZHANG on his right at the opening ceremony of the conference

More than 2,500 leading academic scientists, researchers and engineers, including 10 academicians of the Chinese Academy of Engineering, have attended the conference to exchange and share their experiences and research results on all aspects of soil mechanics and geotechnical engineering. The conference consisted of 8 keynote lectures and 8 invited special lectures (see Table 1 for details). Moreover, other exciting events were organized including an International Symposium on Global Innovative Issues of Geotechnical Engineering, the Academician leading Scientist Symposium, the MAO Yisheng Geotechnical Symposium and a New Technology and Construction Equipment Forum, Symposium for Young Scholars in Geotechnical Engineering, and the Academic Oral Presentation Contests for Master and PhD students. For the International Symposium on Global Innovative Issues of Geotechnical Engineering, the organizing Committee has invited four internationally-renowned experts to deliver invited lectures regarding the safety and the performance of geotechnical and underground engineering (see Photo 5).

Table 1 List of keynote lectures and invited special lectures

Topic	Lecture type	Speaker
Theory of unsaturated soil state and its application in the field of ecology and energy	Invited special lecture	Charles W. W. Ng
Resilient geo-structural system: Basic concepts, design approaches and prospective applications	Invited special lecture	Gang Zheng
Review of microbial soil reinforcement technology	Invited special lecture	Hanlong Liu
Future underground engineering and digital, transparent and intelligent services	Invited special lecture	Hehua Zhu
Earth sensing: Distributed optical fiber sensing technology and its application in Geotechnical Engineering monitoring	Invited special lecture	Bin Shi

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Topic	Lecture type	Speaker
Frontier scientific problems of deep sea soil mechanics and engineering	Invited special lecture	Fuping Gao
Special Geotechnical Engineering problems of Sichuan-Tibet Railway	Invited special lecture	Yangsheng Ye
New construction technology and engineering application of deep pile and diaphragm wall foundation	Invited special lecture	Yaoliang Li
A critical review on the research of fundamental behavior and constitutive relationship of the soil	Keynote lecture	Ga Zhang
Review of the geotechnical testing and exploration techniques	Keynote lecture	Zhengyin Cai
Review of ground improvement technology in China	Keynote lecture	Songyu Liu
Review of foundation engineering technology	Keynote lecture	Wensheng Gao
Deep excavation engineering and underground engineering: New techniques of high-efficiency and energy-saving, low environmental impact, and sustainable development	Keynote lecture	Weidong Wang
Soil dynamic and geotechnical earthquake engineering	Keynote lecture	Maosong Huang
Environmental geotechnics: state-of-the-art of theory, testing and application	Keynote lecture	Qiang Xue
Review of special soil and rock slope engineering	Keynote lecture	Yongli Xie
Using field performance monitoring to help manage risk to infrastructure	Invited lecture of International Symposium	W. A. Marr
Numerical analysis of stability and risk in highly variable soils	Invited lecture of International Symposium	D. V. Griffiths
Improving geotechnical practice and sustainability through innovations	Invited lecture of International Symposium	Jie Han
Making use of a generic geotechnical database for site-specific purposes	Invited lecture of International Symposium	Jianye Ching



Photo 5. Keynote speakers for the International Symposium on Global Innovative Issues of Geotechnical Engineering

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The 10th Board of Directors of CISMGE held its first meeting during the conference (see Photo 6) and granted the next conference to be hold in Wuhan, China, 2023 and assigned Prof. Qiang XUE of the Chinese Academy of Sciences to be the Chairman of Organizing Committee.

The conference committee chair represented the attendees to announce the 2019 Tianjin Consensuses: the future prospects of Geotechnical Engineering in China should have the quality of Resilience, Green, Intelligence and Humanism. Geotechnical engineers have to take the responsibility to continuously pursuit the quality improvement, insist on innovation and sustainability development of the geotechnical structures.



Photo 6. Over 60 Board of Directors of CISMGE attending its meeting with Prof. Charles W.W. NG, president of ISSMGE (in the middle) also attended it as an observer