

Geotechnical Advances and Technology for Sustainable Future

17 February 2025 | 8:30 am - 5 pm

Venue*: Institute of Advanced Study (IAS), HKUST, Hong Kong

Programme:

*hybrid event

Opening

8:30 am
9:00 am

Registration

Opening speeches from Prof. Charles Ng (ISSMGE Immediate Past President), Prof. Albert Shou (ISSMGE VP Asia), Prof. Anthony Leung (HKGES President) and Prof. Young Uk Kim (KGS President); Photo taking

1st Session

9:20 am

Chairperson: Dr. Clareence Choi (HKGES)

Talk 1: Heat Transfer in Underground Power Cable System Buried in Newly Developed Cable Bedding Material

Young-Sang Kim - Chonnam National University

9:35 am

Talk 2: Evaluation of Unbonded Length in Fully Grouted Rock Bolts using a Microphone

Jong-Sub Lee - Korea University

9:50 am

Talk 3: Challenges and Opportunities for Computational Geomechanics

Jidong Zhao - Hong Kong University of Science and Technology

10:05 am

Talk 4: Development of SNS-PFEM for Geohazards Analysis with Large Deformation

Zhenyu Yin - Hong Kong Polytechnic University

10:20 am

Q & A

10:30 am

Coffee Break

2nd Session

11:00 am

Chairperson: Dr. Yong-Hoon Byun (KGS)

Talk 5: An Investigation of Progressive Internal Erosion of Gap-graded Granular Soils using X-ray Micro Computed Tomography

Jianfeng Wang - City University of Hong Kong

11:15 am

Talk 6: Sustainable Soil Treatment with Gel-type Biopolymers: Experimental and Modeling Insights

Jongwon Jung - Chungbuk National University

11:30 am

Talk 7: Biopolymeric Microcapsules in Geotechnical Engineering: A Summary of Recent Results

Sergio Lourenco - University of Hong Kong

11:45 am

Talk 8: Study on Dynamic Properties of Geopolymer Grout

Boo Hyun Nam - Kyung Hee University

12:00 pm

Talk 9: Advanced Constitutive Modelling of Cemented Soils at Small and Large Strains

Chao Zhou - Hong Kong Polytechnic University

12:15 pm

Talk 10: Sustainable Offshore Reclamation with Bio-based Materials: Sedimentation and Consolidation Behavior of Xanthan Gum-treated Clays

Ilhan Chang - Ajou University

12:30 pm

Q & A

FREE registration

For in-person participation:



For online participation:



Programme:

12:40 pm Lunch at the Conference Lodge, HKUST

3rd Session

2:30 pm

Chairperson: Dr. Ilhan Chang (KGS)

Talk 11: Evaluation of Dynamic Earth Pressure on Basement Walls Considering Inertial Forces and Soil-Structure Interaction
Sung-Ryul Kim - Seoul National University

2:45 pm

Talk 12: Material Point Method for Large Deformation Analysis in Geotechnical Earthquake Engineering
Gang Wang - Hong Kong University of Science and Technology

3:00 pm

Talk 13: Evaluation of Liquefaction Triggering during 2017 Pohang Earthquake in South Korea
Duhee Park - Hanyang University

3:15 pm

Talk 14: SSI Effect on Dynamic Response of Multi-degree-of-freedom Structure Supported by Shallow Foundation: Centrifuge Modelling
Yun Wook Choo - Kongju National University

3:30 pm

Talk 15: Advanced Material Characterization for Transportation Substructure
Yong-Hoon Byun - Kyungpook National University

3:45 pm

Q & A

3:55 pm

Coffee Break

4th Session

4:25 pm

Chairperson: Dr. Anthony Leung (HKGES)

Talk 16: Geotechnical Data Extraction via Hybrid Text-mining Approach
Tae Sup Yun - Yonsei University

4:40 pm

Talk 17: Augmenting the Role of Soil Test Database in Efficient Reliability-based Design of Ultimate and Serviceability Limit States
Andy Leung - Hong Kong Polytechnic University

4:55 pm

Talk 18: Recent Developments in the Assessment and Modelling of Landslide Mobility
Stuart Millis - ARUP

5:10 pm

Talk 19: Probabilistic Hazard Analysis of Rainfall-induced Landslides at A Specific Slope Considering Rainfall Uncertainty and Soil Spatial Variability

5:25 pm

Yu Wang - Hong Kong University of Science and Technology

Talk 20: Simulating Soil-wheel Interactions using a Coupled Material-point and Level-set Method

5:40 pm

Jinhyun Choo - Korea Advanced Institute of Science and Technology

Talk 21: Some Unusual Landslide Cases and Impact on Slope Safety
Steven Williamson - AECOM

5:55 pm

Talk 22: Introduction of New Digital Aerial Photograph Interpretation System

6:10 pm

Kay Mok - GEO, CEDD

Q & A

Closing

6:20 pm

Closing speech

6:45 pm

Dinner at Sai Kung

Contact:

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Sponsors:



Geotechnical Centrifuge Facility

