

Joint Technical Symposium on Digital Geosciences & Geotechnology

Date & Venue

Date & Time: 16 September 2021 (Thu), 09:00 to 18:00 (GMT+8)
Venue & Platform: Zero Carbon Park, Hong Kong (8 Sheung Yuet Road, Kowloon Bay)
and live streaming via Zoom

Event Details

The Symposium is jointly organised by the Geotechnical Division of The Hong Kong Institution of Engineers (HKIE GD), Hong Kong Regional Group of The Geological Society of London (GSL HKRG) and Hong Kong Geotechnical Society (HKGES). This event will provide a platform for academics and practitioners to share insights and keep abreast of the state-of-the-art development of digital technologies for geosciences and geotechnological applications. The topics will cover (1) advances in remote sensing and smart technologies, (2) applications of artificial intelligence and machine learning, and (3) innovations and project applications. The Symposium is designed for one CPD day.

Fee, Registration & Enquiries

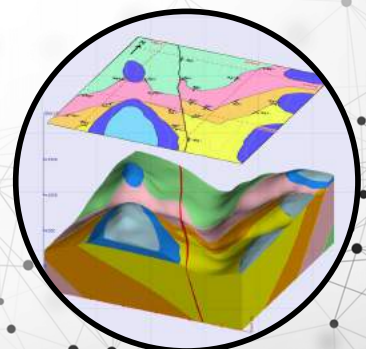
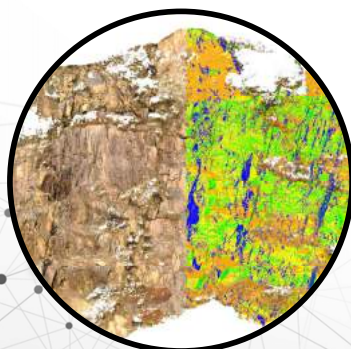
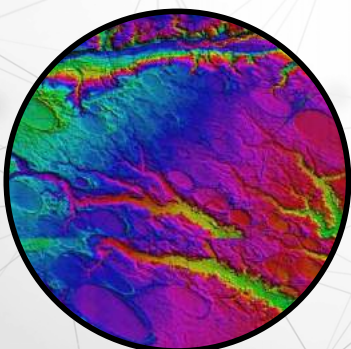
Registration fee is HK\$280. Applications received on or before 15 August will be qualified for an early bird rate of HK\$180. Full-time students are eligible for a concession rate at HK\$90. Number of physical seats available at the venue will be limited. In-person attendance will be offered on a first-come, first served basis during application.

Registration should be completed online at [here](#) on the HKIE GD portal. The registration fee shall be deposited to the HKIE - Geotechnical Division account no. 025-344888-016 (HSBC) and the uploading of bank-in slip to the portal is required during the online registration process. Confirmation details will be sent to successful applicants by email. Receipt of payment and CPD certificate will be disseminated via emails after the event.

For enquiries or overseas applicants who are unable to make local bank transfer, please contact Mr Dennis Wong (Tel: 2268 3538 or email: geosymposium2021@gmail.com).



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NOW!**



Joint Technical Symposium on Digital Geosciences & Geotechnology

Opening Speech



Ir Dr Raymond Wai-man CHEUNG, JP

Head of the Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government

Ir Dr Raymond Cheung has more than thirty years' experience in civil and geotechnical engineering. He has been involved in a number of mega civil engineering projects in Hong Kong under the Airport Core Programme, including the Airport Railway, Chek Lap Kok International Airport reclamation and Western Harbour Crossing, before joining the Hong Kong SAR Government in the late 1990s. He is currently the Head of the Geotechnical Engineering Office (GEO) of the Civil Engineering and Development Department overseeing control of geotechnical works, setting geotechnical standards, mining operation and quarrying, tunnelling and underground space development, the Landslip Prevention and Mitigation Programme, and the landslide emergency services.

Keynote Speakers



Prof John Wen-zhong SHI

Chair Professor in Geographic Information Science and Remote Sensing, The Hong Kong Polytechnic University

Prof Shi obtained his doctoral degree from University of Osnabrück in Vechta, Germany in 1994. He is Academician of International Eurasian Academy of Sciences, Otto Poon Charitable Foundation Professor in Urban Informatics, Chair Professor in geographic information science (GISci) and remote sensing, The Hong Kong Polytechnic University (HKPU). He serves as Director of HKPU-Shenzhen Technology and Innovation Research Institute (Futian), Smart Cities Research Institute, HKPU. He also serves as Editor-in-Chief, International Journal of Urban Informatics.

Prof Shi's current research interests include urban informatics for smart cities, GISci and remote sensing, intelligent analytics and quality control for spatial big data, artificial-intelligence-based object extraction and change detection from satellite imagery, and mobile mapping and 3-D modelling based on LiDAR and remote sensing imagery. He has published more than 250 research articles that are indexed by Science Citation Index (SCI) and 15 books.



Prof Kok-Kwang PHOON

Chair Professor and Provost, Singapore University of Technology and Design

Kok-Kwang Phoon is Cheng Tsang Man Chair Professor and Provost, Singapore University of Technology and Design (SUTD). He obtained his BEng and MEng from the National University of Singapore and his PhD from Cornell University. Prof Phoon is particularly interested in developing statistical and other data-driven methods to support decision making in geotechnical engineering. He has edited 3 books and authored 1 book: Model Uncertainties in Foundation Design (CRC Press, 2021). He was bestowed the ASCE Norman Medal twice in 2005 and 2020, and the Humboldt Research Award in 2017, among many others. He is the Founding Editor of Georisk, appointed Board Member of ISSMGE, and Advisory Board Member for the WEF Global Risks Report. He was elected as a Fellow of the Academy of Engineering Singapore in 2012.

Joint Technical Symposium on Digital Geosciences & Geotechnology

Registration (08:30 – 09:00)

09:00 – 09:05



Ir Tony HO

Chairman, Geotechnical Division, The Hong Kong Institution of Engineers

Welcome Address

09:05 – 09:15



Ir Dr Raymond CHEUNG, JP

Head of Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government

Opening Speech

Morning Session

09:15 – 10:00



Prof John SHI

Chair Professor in Geographic Information Science and Remote Sensing, The Hong Kong Polytechnic University

Keynote Speech:

Geospatial Intelligence for Geosciences and Geotechnology

Theme (1) : Advances in Remote Sensing and Smart Technologies

10:00 – 10:25



Mr Jeffrey WONG

Chief Geotechnical Engineer, Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government

Detector in the Air : 2020 Airborne LiDAR Survey

10:25 – 10:50



Ir Sammy CHEUNG

Deputy Head of Geotechnical Engineering Office (Island), Civil Engineering and Development Department, HKSAR Government

Excellence with Technology Innovation: Dreamers and Realists

10:50 – 11:00

Break

Theme (2) : Applications of Artificial Intelligence and Machine Learning

11:00 – 11:25



Prof Y H WANG

Professor and Associate Department Head, Department of Civil and Environmental Engineering, The Hong Kong University of Science and Technology

Vertical AI – An Integrated Solution for A Smart and Resilient City

11:25 – 11:50



Dr Louis WONG

Associate Professor and Director of MSc in Applied Geosciences, Department of Earth Sciences, The University of Hong Kong

Automatic Rock Type Classification using Computer Vision-based Artificial Intelligence Technique – Feasibility and Challenges

11:50 – 12:15



Dr W Z HOU

Engineering Geologist, GeoRisk Solutions

Smart NTHS with Applications of Artificial Intelligence and Computer Vision – Case Studies in Hong Kong

12:15 – 12:30

Panel Discussion (Morning Session)

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Afternoon Session

14:00 – 14:45



Prof K K PHOON

Chair Professor and Provost, Singapore University of Technology and Design

Keynote Speech:

Project DeepGeo – Data-driven 3D Subsurface Mapping

Theme (2) : Applications of Artificial Intelligence and Machine Learning

14:45 – 15:15



Prof H W HUANG

Distinguished Professor, Tongji University

Long-term Deformation Monitoring and Analysis of Shield Tunnel by Smart Sensing

15:15 – 15:45



Dr Z Q LIU

Senior Engineer, Norwegian Geotechnical Institute

Machine Learning and Landslide Studies

15:45 – 15:55

Break

Theme (3) : Innovations and Project Applications

15:55 – 16:20



Ir Philip KIRK

Technical Director, Aurecon New Zealand Limited

3-D Ground Models in a World of Digital Twins

16:20 – 16:45



Ir Stuart MILLIS

Associate Director, Ove Arup & Partners Hong Kong Ltd

Total Digital Design

16:45 – 17:10



Ir Simon LEUNG

Chief Resident Engineer, AECOM Asia Company Limited

Digital Journey to Improved Blasting

17:10 – 17:35



Ir Stephen MAK

Deputy Project Manager, Hyder-Meinhardt Joint Venture

New Digital Paradigm for Geotechnical Works under Trunk Road T2 and Cha Kwo Ling Tunnel

17:35 – 17:50

Panel Discussion (Afternoon Session)

17:50 – 17:55



Ir Kevin STYLES

Chairman, Hong Kong Regional Group, Geological Society of London

Closing Remark

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Hong Kong, 16 September 2021

Organisers:



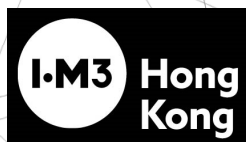
Supporting Organisations:



Association of Geotechnical & Geoenvironmental Specialists (Hong Kong)



The Geological Society of Hong Kong



Hong Kong Branch, The Institute of Materials, Minerals and Mining



Department of Architecture and Civil Engineering, City University of Hong Kong



Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University

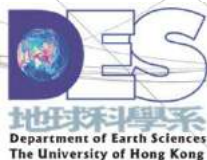


Department of Civil and Environmental Engineering, The Hong Kong University of Science & Technology



香港大學
THE UNIVERSITY OF HONG KONG

Department of Civil Engineering, The University of Hong Kong



Department of Earth Sciences, The University of Hong Kong



Department of Land Surveying and Geo-Informatics, The Hong Kong Polytechnic University



Earth System Science Programme, The Chinese University of Hong Kong