3D GEOLOGICAL MODEL APPLICATION IN SINGAPORE: BUILDING, PREDICTING AND UPDATING

Date: 14 April 2022, Thursday

Time: 10am to 12pm

Fees: $21.40 (IES Members) / $42.80 (Non-members)
(Price inclusive 7% GST)

CPD Program: STUs (Structural) / PDUs for PEs and CEngs
(All to be confirmed)

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In urban areas, utilising underground space enhances the quality of above-ground life. Understanding the geological formation and distribution of soil and/or rock profiles are crucial for underground geotechnical design.

To improve the efficient and effective use of underground space, 3D geological modelling has become an effective way of storing, processing, presenting and analysing increasingly large quantities of geological data. It is a vital research direction in geological fields, such as engineering geology.

Singapore has achieved detailed geological data and information in the past, providing the foundation for detailed 3D geological models. Through 3D geological technological advancement, underground space has been widely adopted and utilised by businesses, government agencies, and researchers, thus saving millions of dollars.

This webinar will showcase how to build a 3D geological model predicting geological conditions by using machine learning approach and update existing 3D geological model using artificial intelligence method.

ABOUT THE SPEAKERS

Prof Zhu Xing, received his PhD degree in Chengdu University of Technology, China in 2014.

He is currently working as an Associate Professor of College of Information Science & Technology in Chengdu University of Technology. He is also a Research Member of State Key Laboratory of Geohazard Prevention and Geoenvironment Protection, China.

His research interests include Artificial Intelligence, Wireless Sensor Networks for landslide monitoring and early warning, Geological Information and Data Mining. He has published more than 30 papers and won the second prize of the Chinese National Science and Technology Progress in 2019.

He was one of the Postdoctoral Research Fellows in the group supervised by Prof Chu Jian of Nanyang Technological University, Singapore (2020 – 2021).

Dr Zhu Xing
Associate Professor, College of Information Science & Technology, Chengdu University of Technology

Mr Peng Pei is the founder of One GIS (One GIS) Private Limited. He set up One GIS in mid 2014 and leads the company to export the business in geographic information system (GIS) industry of Singapore.

Mr Peng received his Master degree of GIS from Wuhan University, China in 2006. Before he set up One GIS, he had worked in GIS for over 10 years.

Mr Peng and the company's leaders focus on facilitating the GIS application in Singapore, especially in smart systems, including geology, intelligent transportation, utility and building sectors. In 2021, he and other founders set up GIBS SMART CITY together and focus on applying geospatial technologies and VR /AR technologies in digital twin.

Mr Peng Pei
Managing Director, One GIS Pte Ltd