

CONFERENCE PROGRAMME

30 November 2023

Opening Address

1000

*Prof Leung Chun Fai, Conference co-Chair
Dr Karthikeyan Muthusamy, GeoSS President
Ir Lee Peir Tien, MGS President
Dr Marc Ballouz, ISSMGE President*

Chairperson : Dr Karthikeyan Muthusamy

ISSMGE Presidential Lecture

1020

Geotechnical Marriage between Theory & Practice

Dr Marc Ballouz

Chairperson : Prof Tan Thiam Soon

Keynote Lecture 1

1105

Impact of Climate Change on Coastal Infrastructure

Prof Yong Kwet Yew

Keynote Lecture 2

1150

Types and Impacts of Debris Flow Failure in Tropical Hilly Terrain and Development Areas and Its Practical Rehabilitation Solutions

Ir Liew Shaw Shong

1235

Lunch

Chairperson : Er William Chong and Ir Colin Lim

Keynote Lecture 3

1315

Planning for the Underground in Singapore

Dr Goh Kok Hun

Bright Spark Lecture 1

1400

Deep Excavation in Weathered Quartz - A Case History of an Underground Station Construction in Kuala Lumpur

Dr Chia Weng Boon

Bright Spark Lecture 2

1430

Mitigating Risk of Impact of Existing Structure due to Urban Pipe Jacking

Mr Lee Long Guang

1500

Tea Break

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	Parallel Session : Excavations and Tunnelling	Parallel Session : Field Testing and Performance
	Chairperson : Dr Lai Woei Tong and Dr Dominic Ong	Chairperson : Dr Poh Teoh Yaw and Ir Chow Chee Meng
	<p>Challenges of Bored Tunneling Works along Keppel Road</p> <p style="text-align: center;"><i>Pan How Yen, WSP Consultancy Pte Ltd, Singapore</i></p>	<p>Fibre Optics Sensor for Pile Load Testing in Singapore's High Rise Public Housing Projects</p> <p style="text-align: center;"><i>Mervyn Chia, Housing Development Board, Singapore</i></p>
	<p>State of the Art in Geophysical Investigations for Tunnelling and Underground Space Development</p> <p style="text-align: center;"><i>Sanjay Rana, PARSAN Overseas Pvt. Limited, India</i></p>	<p>Application of Distributed Fibre Optic Sensor (DFOS) in Instrumented Pile Load Test</p> <p style="text-align: center;"><i>Tee Bun Pin, Smart Sensing Technology Sdn Bhd, Malaysia</i></p>
	<p>Some Potential Optimisations for the Design of Underground Infrastructure in Residual Soils</p> <p style="text-align: center;"><i>Wai Mon Thi, Mott MacDonald, Singapore</i></p>	<p>Lesson Learned from Dynamic Monitoring Case Studies</p> <p style="text-align: center;"><i>Thai Nguyen, Goble Pile Check, United States of America</i></p>
1530	<p>An evaluation of the Post-tensioned Waler System (PWS) for use as a support system in deep excavations</p> <p style="text-align: center;"><i>Balamonica Kalyanasundaram, Singapore Institute of Technology, Singapore</i></p>	<p>Comparison of Automated and Manual Load Control Systems in Pile Static Load Testing</p> <p style="text-align: center;"><i>Kelvin Lee, Glostrex Technology Sdn Bhd, Malaysia</i></p>
	<p>Performance of Strutless Earth Retaining Stabilising Structure (ERSS) System Adopting Buttress Wall in Deep Unbalanced Excavation</p> <p style="text-align: center;"><i>Romy Tjuar, DP Engineers Pte Ltd, Singapore</i></p>	<p>Performance Monitoring of Large Deep Excavation Works with an Efficient Digitization Process</p> <p style="text-align: center;"><i>Chennimalai Gounder Chinnaswamy, ARC Software & Services, Singapore</i></p>
	<p>Design and Construction of Temporary U-turn Removable Ground Anchors based on SS EN 1997</p> <p style="text-align: center;"><i>Soh Yang Wee, WSP Consultancy Pte Ltd, Singapore</i></p>	<p>Analysis and Field Performance of Structures Adjacent to a 27m Deep Excavation</p> <p style="text-align: center;"><i>Michael Leong, Formerly Who Hup Pte Ltd, Singapore</i></p>
	<p>Mechanically Stabilized Embankment with Geogrid Reinforcement for Gorontalo Outer Ring Road (GORR): An Indonesian Experience</p> <p style="text-align: center;"><i>Teuku Radenal Amir, Solmax Geosynthetics, Indonesia</i></p>	<p>Wireless Network Automation (WiNA) System and Data Visualization Platform for Ground and Structural Instrumentation and Monitoring</p> <p style="text-align: center;"><i>Lee Sieng Kai, Glostrex Technology Sdn Bhd, Malaysia</i></p>
	<p>Case Study of Impact Assessment on DTSS Tunnel due to Groundwater Leakage from Cut and Cover Excavation at Singapore Changi</p> <p style="text-align: center;"><i>Kok De Sheng, Independent, Singapore</i></p>	<p>Design and Performance of Soil Nailed Slopes at Convex Corner</p> <p style="text-align: center;"><i>Chiong Jeen Ching, A-Terra Consultants Pte Ltd, Singapore</i></p>
1730	End of Day 1	
1900	Conference Dinner	

CONFERENCE PROGRAMME

1 December 2023

Chairperson : Ir Lee Peir Tien

0900	Keynote Lecture 4 Overview of Singapore's Rail Construction and Tunnelling Projects Mr Chang Kin Boon	
0945	Keynote Lecture 5 Bored Piles in Tropical Soils and Rocks; A Data Base Approach to Design Dr Toh Cheng Teik	
1030	Tea Break	
1100	Parallel Sessions : Shallow and Deep Foundations	Parallel Sessions : Soil Characterization and Properties
	Chairperson : Er Tong Seng Chua and Ir Frankie Cheah	Chairperson : Prof Darren Chian and Ir HjH Raftah bt Mahfar
	Proper Conduct of Ultimate Pile Load Test and Interpretation <i>Huang Yongqing, Building and Construction Authority, Singapore</i>	Use of seismic cone tests for characterization of reclaimed land <i>Wu Shifan, Nanyang Technological University, Singapore</i>
	Rationalization of Bored Pile Soil Shaft Friction Empirical Factor, Ks Based on Soil Strength & Plasticity Index <i>Leow Chee Sin, Geohan Sdn Bhd, Malaysia</i>	Correlation Between Values of Undrained Shear Strength, Cu and Standard Penetration Test Blow Count, SPT-N for Cohesive Soils from Granite Formation in Peninsular Malaysia <i>Syahmizzi Ifwat Azharnim, Minconsult Sdn Bhd, Malaysia</i>
	Field Study on the Performance of Reinforced-Concrete Drilled Displacement Screw Pile in Singapore <i>Ho Jiahui, Singapore Institute of Technology, Singapore</i>	Modification of Erosion Tolerance by Considering Land Biophysical and Landform Factors <i>Beny Hjrjadi, BRIN, Badan Riset dan Inovasi Nasional, Indonesia</i>
	Successful Reuse of Existing Piles for High-Rise Mixed Development Project in Singapore <i>Peter Ling Chuan Chang, P&T Consultants Pte Ltd, Singapore</i>	Evaluation of Compressibility of Soil Using Nuclear Density Cone Penetrometer Test <i>Karthikeyan Muthusamy, Surbana Jurong Consultants Pte Ltd, Singapore</i>
	Design and Construction of Substructure Works for Hill Site Development in Mont Kiara, Kuala Lumpur <i>Chee Meng Chow, G&P Geotechnics Sdn Bhd, Malaysia</i>	Machine Learning of Subsurface Geological Models from Limited Site Investigation Data and Prior Geological Knowledge <i>Chao Shi, Nanyang Technological University, Singapore</i>
	Performance of Composite Caisson-Pile Foundations on Ganga Sand Beds <i>Prishati Raychowdhury, IIT Kanpur, India</i>	Impact of Cyclic Wetting-Drying on Stiffness of Carbide Slag Stabilized Clay <i>Sharanya A G, National Institute of Technology Warangal, India</i>
1230	Lunch	

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1 December 2023

Chairperson : Prof Eun Chul Shin

Keynote Lecture 6

Case History of an Underground Cross over Structure in Complex Geological Conditions

Dr Ooi Lean Hock

ISSMGE Vice Presidential Lecture

On the Landslide Hazard with the Consideration of Climate Change

Prof Keh-Jian Shou

Tea Break

Parallel Sessions : Shallow and Deep Foundations

Chairperson : Dr Yet Nai Song and Ir Dr Gue Chang Shin

Impact of Pile Driving in the Vicinity of Constructed Bored Piles in Soft Clay

Claire Chan, Arup Singapore Pte Ltd, Singapore

Performance of Jack-in Pile, Bored Pile and Shallow Foundation in Granitic Formation

Lee Peir Tien, CMKS Consultancy Sdn Bhd, Malaysia

Automated Pile Load Testing for High Rise Public Housing Projects In Singapore

Aung Swe Lwin, Housing Development Board, Singapore

Investigating Pile Group Behaviour with Varying Soil Stiffness: A Finite Element Analysis

Nicholas Lim, Singapore Institute of Technology, Singapore

Importance of Properly Built-up Pile Head in Pile Load Tests

Zi Xun Eng, Geonamics (M) Sdn Bhd, Malaysia

Factors affecting skin friction and end bearing in bored piles across Singapore

Ricky Nagatie, Housing Development Board, Singapore
Anwardeen Ziaudeen Sameera Zeehan, National University of Singapore, Singapore

Influence of Kentledge Reaction System on Pile Load Test

Oh Yong Ping, Advanced Rapid Geotech Services Pte Ltd, Singapore

Seeking Sustainability Outcomes in North South Corridor

Godia Ong, Mott MacDonald, Singapore

A Novel Methodology for Evaluating Airport Pavement Performance using Geotechnical Centrifuge Modeling

Zhang Zhiyong, National University of Singapore, Singapore

Parallel Sessions : Ground Improvement and Stabilization

Chairperson : Dr Jia Hui Ho and Ir Wong Chen Jack

Experimental Investigation on the Effectiveness of Lime-Calcined Clay Cement-treated Soils

Ming Ze Chai, Singapore Institute of Technology, Singapore

Case Study on Use of Grouted Stone Columns for Old Landfill Site in Singapore

Chew Soon Hoe, National University of Singapore, Singapore

Ground improvement using vibro techniques for power plants

Zhi Wei He, Keller Foundations (S E Asia) Pte. Ltd., Singapore

Characterisation of Engineering Properties of DCM based on Case Study of Projects at Eastern Singapore

Tee Zi Hou, One Smart Engineering, Singapore

Going Green with Ground improvement

Selvaganesh Selvaraju, Keller Foundations (S E Asia) Pte Ltd., Singapore

Efficiency of Discharge Capacity for Various PVDs and PHDs

Eun Chul Shin, Incheon National University, South Korea

Improving Steel Slag for Treatment Efficacy through CO₂ Sequestration for Zinc-Contaminated Soil

Lynette Tay, Nanyang Technological University, Singapore

Improving Steel Slag for Treatment Efficacy through CO₂ Sequestration for Lead-Contaminated Soil

Xuan Yan Tan, Nanyang Technological University, Singapore

1330

1415

1500

1100

1730

End of Day 2