

# Workshop on Engineering Geology

Singapore Management University, School of Economics & Social Sciences (Level 2)  
90 Stamford Road, Singapore 178903

13 July 2017, Thursday

8.30am – 5.00pm

**PDU:TBA**  
**STU:TBA**

Organised by



**Society for Rock Mechanics  
& Engineering Geology  
(Singapore)**



**Geotechnical Society of  
Singapore**

## COURSE SYNOPSIS

This workshop is organised for the 3rd time in response to the favourable feedback in 2015, and is also developed as a follow-up to our popular Workshop on Geology of Singapore held in 2010, 2011, 2012, 2014 and 2016. It aims to provide a link between the knowledge of geology and its engineering applications in underground construction and rock cavern space development. It will present and discuss systematically the fundamentals of engineering geology and best practices both internationally and within the context of Singapore. It will cover the engineering uses of both soil and rocks, the theory and practice in site investigations for underground construction, rock mass classification methods for rock cavern design, and the basic concept and practical aspects of managing geological risks. The workshop is suitable for both engineers with little prior training in engineering geology and experienced engineers who want an update and a refresher course. It will be taught by Dr Cai Jungang and Dr Zhou Yingxin, two highly regarded and very experienced specialists.

## **SPEAKERS**

**Dr. Cai Jungang**  
**Dr. Zhou Yingxin**

## **REGISTRATION FEE**

**SRMEG/GeoSS Members : \$250.00**  
**Non-members : \$300.00**

## **PROGRAMME**

Time	Topic	Speaker
8:30 AM	Registration	
9:05 AM	Welcome by Dr Cai Jungang, Executive Director of Tritech Group Limited	
9:10 AM	<b>Fundamentals of Engineering Geology:</b> <i>Geology vs Engineering Geology, soil &amp; rock description for civil engineering purpose, soil &amp; rock weathering classification in Singapore, engineering properties of G(I)-G(VI) &amp; S(I)-S(VI)</i>	Cai Jungang
10:30 AM	Tea Break	
11:00 AM	<b>Site Investigation Practice in Singapore:</b> <i>Code of Practice for site investigations in Singapore, calculation of TCR, SCR &amp; RQD at site, core box handling &amp; marking, borehole log and site investigation reporting, digital geological data format required by BCA of Singapore</i>	Cai Jungang
12:15 PM	Lunch	
1:30 PM	<b>Rock Mass Classification for Underground Rock Cavern &amp; Tunnel Design:</b> <i>Key geological parameters, rock mass classification using the Rock Mass Rating and Q system, and empirical rock support design</i>	Zhou Yingxin
3:00 PM	Tea Break	
3:30 PM	<b>Geological Risk Management for Underground Rock Cavern &amp; Tunnel Construction:</b> <i>Concepts of risks, risk management process, risk sharing, basic strategies for managing geological risks in large rock engineering projects</i>	Zhou Yingxin
4:30 PM	Q&A	

Please send Registration Form and Payment to:  
SRMEG Secretariat

1 Liang Seah Street, #02-11 Liang Seah Place, Singapore 189022

Phone: +65 6336 2328 | Fax: +65 6336 2583 | Email: [srmeg@cma.sg](mailto:srmeg@cma.sg) | Website: [www.srmeg.org.sg](http://www.srmeg.org.sg)

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## SPEAKERS' PROFILE



**Dr Cai Jun Gang** is currently an Executive Director of Tritech Group Limited. He obtained MEng and PhD in Geotechnical Engineering from Nanyang Technical University (NTU) of Singapore. He has over 25 years of practical experience in engineering geology, rock and geotechnical engineering R&D, consultancy and project management. Dr Cai has been played a leading role for most rock as rock cavern development in Jurong Formation, underground ammunition facilities, underground science city at Kent Ridge, Jurong oil storage rock caverns (JRC) at Jurong Island, feasibility study of underground rock cavern (URC) usages in Singapore, feasibility study of underground drainage and reservoir system (UDRS) in Singapore.



**Dr. Yingxin Zhou** is Head Engineering (Underground Facilities) with the Defence Science & Technology Agency (DSTA), and Adjunct Associate Professor at the Nanyang Technological University. He has extensive experience in research, engineering, and teaching in the area of engineering geology, rock mechanics and rock engineering, underground space technology. He has been involved in several major rock engineering projects in Singapore and providing technical advice to various government agencies on matters related to rock engineering and underground space use. Dr Zhou was the founding President of the Society for Rock Mechanics & Engineering Geology Singapore and founding council member of the Tunnelling and Underground Construction Society Singapore. He served as Vice President for Asia of the International Society for Rock Mechanics and Vice President of the Associated research Centres for the Urban Underground Space (ACUUS). Dr Zhou currently serves as a member of the Editorial Board for the International Journal of Tunnelling & Underground Space Technology, Member of the ACUUS Board, and Member of the Advisory Board for ITA Committee on Underground Space. He has more than 100 technical publications and six edited books and conference proceedings.

[Click Here to Register](#)

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