

ANNOUNCEMENT

AGS (HK) One-day Seminar on “Planning, Design and Construction of Cavern and Underground Space”

Theme

This one-day seminar aims to provide a platform for geotechnical engineers/geologists from the industry to share their valuable knowledge and experience on issues related to the planning, design and construction of Cavern and Underground Space in Hong Kong or Overseas. Local or overseas experts will present topics on planning, design methodologies, construction challenges and risk management.

<u>Details:</u>	Date: 28 September (Saturday) Time: 08:30 for registration; 9:00 am to 5:00 pm for seminar Venue: Chiang Chen Studio Theatre, The Hong Kong Polytechnic University
<u>Programme :</u>	Please see attached file.
<u>Registration Fee :</u>	HK\$ 650 – early bird rate for members of AGS(HK) registered by <u>31 August 2019</u> and completed payment by <u>13 September 2019</u> . HK\$ 750 – standard rate for non members or walk in registration or payment at the venue. HK\$ 200 – for full-time student registered before 31 August 2019 and completed payment by 13 September 2019. (including tea and coffee for two coffee break) Note: <ul style="list-style-type: none">• Registration is on a first-come, first-served basis and seats are limited.• Student discount is only applicable for full time student with valid student card issued by local universities / VTC
<u>Online Registration :</u>	Please register at below link: https://forms.gle/YhZ3zZ7cSP7Edc9H9 An email will be sent out after online registration successfully completed.
<u>Payment Method:</u>	Please follow the payment instruction in the email from AGS(HK) to proceed the payment. Choose either payment method to complete the event registration: <u>1.Prior Registration</u> Bank-in to our HSBC account: Account Number: 139-5-014903 Account Name AGS(HK) Ltd Email the bank-in slip to Lewis Wong at Lewis.Wong@atkinsglobal.com <u>2.Walk-in Registration (Standard Rate Only)*</u> Cash payment expected at the venue ; OR Crossed cheque made payable to “The Association of Geotechnical and Geoenvironmental Specialists (Hong Kong) Limited ” expected at the venue. (Note *: Availability of seat is not guaranteed for walk-in registration)



香港岩土及岩土環境工程專業協會
ASSOCIATION OF GEOTECHNICAL &
GEOENVIRONMENTAL SPECIALISTS (HONG KONG)

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<u>Enquiries :</u>	For enquiries on registration, please contact Haydn Chan at e-mail: Haydn.Chan@arup.com For general enquiries on the seminar, please contact Raymond Sin at Tel: 3922 8804 or e-mail: Raymond.Sin@aecom.com
<u>Cancellation Policy:</u>	Cancellation will only be accepted in writing via email, not later than 2 weeks before the seminar, and only 50% of registration fee will be refunded.
<u>Book Prize :</u>	Book prize is open to all young attendants under 35 years old for the submission of a good quality report (max. 500 words) on this event. Book Prize reward comprises a book "Geology of Site Investigation Boreholes in Hong Kong" by Chris Fletcher and book coupon HK\$300 from BookaZine. Please submit your report to Clayton.Chan@aecom.com

Remarks

The seminar is designed for 1 CPD day. Attendance certificates will be provided after the seminar.



Programme

Time	Topic	Speakers
8:30 – 9:00 am	Registration	
9:00 – 9:10 am	Welcome Address	Clayton Chan Chairman AGS(HK)
9:10 – 9:50 am	A Review of Rock Cavern Design and Construction in Hong Kong	Guy Bridges (AECOM)
9:50 – 10:30 am	Underground Space of Hong Kong – Rock Caverns	YC Lam (CH2M)
10:30 – 10:45 am	Coffee Break	
10:45 – 11:25 pm	An Alternative Approach to Validate the Adequacy of Tunnel Temporary Support	Terry Chan (Gammon)
11:25 – 12:05 pm	Experiences sharing for Primary tunnel support design of caverns in Hong Kong	Raymond Cheung (Mott)
12:05 – 12:20 pm	Panel Discussion / Q&A	Morning Session's Speakers
12:20 – 1:40 pm	Free Time for Lunch	
1:40 – 2:20 pm	Hydrogeology in Cavern Design and Construction	Harry Asche (Aurecon)
2:20– 2:50 pm	Overview and Case Studies of Cavern Planning and Design	Thomas Choi (Atkins)
2:50– 3:20 pm	Underground Freight Moving System & Developing Underground Logistics Cavern in Singapore	Sebastian Lee (Arup)
3:20 – 3:35 pm	Coffee Break	
3:35 – 4:05 pm	A Construction Case Study of Padur underground oil storage cavern in India	JAEWON, Yoo (SK Engineering)
4:05 – 4:35 pm	Numerical Modelling for Verification of Tunnelling – Application and Integration of Excavation Data	Geoffrey Pook (Meinhardt)
4:35 – 4:50 pm	Panel Discussion / Q&A	Noon Session's Speakers
4:50 – 5:00 pm	Distribution of CPD Certificate	



About the Speakers :

Speaker 1 – Guy Bridges (AECOM)



Since graduation Guy has spent over twenty-eight years working as a geotechnical engineer, predominantly on tunnel projects in the UK and Hong Kong. He is qualified as Mining Geologist, and has been involved in the design and construction of tunnels and geotechnical works for major road, rail and drainage projects utilising construction methods ranging from drill and blast to TBM, soft ground mechanical excavation and open cut.

Guy's geological background, range of experience of tunnel design and construction, and close involvement with works on site, has given him a detailed understanding of the geotechnical uncertainties that exist on tunnel and cavern projects, and the practical solutions that need to be developed to manage the construction works. With hands on experience of rock excavation by blasting, Guy has a strong understanding of both the technical and practical challenges of rock cavern construction.

Speaker 2 – YC Lam (CH2M)

Ir YC Lam is a Director of Halcrow China Limited | CH2M, Hong Kong. He has been serving some learned societies in Hong Kong as committee member including IOM3 and HKIE. Mr. Lam has been involved in major tunnelling works and other geotechnical works such as site formation, slope upgrading / inspection works, foundation design, road & drain design, and trenchless excavation. He specialises in tunnelling and involved in many major projects such as TKO- Lam Tin Tunnel, HKLR – Scenic Hill Tunnel, CWB – Tunnel underneath CHT and Slip Road 8, MTRC - SIL(E), West Rail DB350 Tai Lam Tunnel, Pak Shing Kok Tunnel, Quarry Bay Station Relief Works, CLP Cable Tunnels, HyD Route 8 Eagle's Nest Tunnel & Shatin Heights Tunnel, CEDD Trunk Road (T7) Tunnel and Tseung Kwan O to Lam Tin Tunnel, HATS 2A of DSD, Tunnel at Anderson Road Quarries, Deep Sewer Project in UAE, KVMRT in Malaysia, Chennai Metro in India and Black Hawk Tunnel in the US. He also published some papers with various topics related to tunneling such as TBM, Drill & Blast Tunnel, NATM, HDC and HDC.

Speaker 3 – Terry Chan (Gammon)

Mr. Terry Chan is a Chartered Geologist of Geological Society of London and a Chartered Engineer of IOM3. He has over 25-year experiences as a professional in the geological and geotechnical fields involving a number of large and complex projects mainly in tunneling, site formation, site investigation and ground treatment works.

Speaker 4 – Raymond Cheung (Mott MacDonald)

Mr. Raymond Cheung is a Tunnel Lead of Mott MacDonald Hong Kong Ltd. He was the cavern designer for Western Saltwater Services Reservoir Cavern in HKU Centennial

Campus. He was also the primary cavern support designer for MTR Sai Yin Pun Station and HKU Station in West Island Line. He is currently working on the Central Tunnel Contract of Central Kowloon Route which will construct large span dual three lane tunnels and cavern underneath dense Kowloon urban area.

Speaker 5 – Harry Asche (Aurecon)



Harry Asche is Aurecon's Design Director – Tunnels. He is an Adjunct Associate Professor at the University of Queensland, and is the Vice-Chair of the Australian Tunnelling Society. Harry has worked on tunnels and caverns in Australia, New Zealand, Hong Kong and the UK. He worked on the South Island Line, Contracts 901 and 904, and carried out the groundwater inflow analysis and the 3D cavern design for both of these projects. More recently, Harry has been the tunnel discipline leader for the

9km WestConnex 2 project in Sydney and the 3km WestGate Tunnel Project in Melbourne. In 2018, Harry was Queensland's Engineer of the Year and was awarded the Roads Australia Technical Excellence Award in 2018.

Speaker 6 – Thomas Choi (ATKINS)

Thomas obtained his Bachelor's Degree in Civil and Structural Engineering from The University of Hong Kong in 2000. He is currently the Associate Director in Tunnel and Ground Engineering of ATKINS, member of the SNC-Lavalin Group, having about 19-year experience in civil and infrastructure projects involving tunnelling, excavation and lateral support and foundations. His key experience is the design and management of tunnel/cavern-related projects such as Liantang/Heung Yuen Wai Boundary Control Point, MTR SIL 902, SCL 1122 and Tuen Mun - Chek Lap Kok Link.

Speaker 7 – Sebastian Lee (ARUP)

Sebastian Lee is Associate Principal of Arup Singapore Office. He graduated from National University of Singapore and has +15 years of professional experience working in Singapore and Sydney. He is a registered Professional Engineer in Singapore and a Chartered Structural Engineer with the Institution of Structural Engineers, UK. He is a successful civil and structural engineer with visible achievements in high quality civil and structural design, project development, and proven client relationship expertise. The varied exposure to both buildings and infrastructure works in his working experience often placed him in projects that are complex and multidisciplinary in nature. Some of his projects includes underground transit stations along Downtown Line and Thomson East Coast Line in Singapore. He also worked on a feasibility study on a state-of-the-art inter-estate underground tunnels for freight movement from ports to underground industrial caverns.



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Speaker 8 – JAEWON, Yoo (SK Engineering & Construction Co. Ltd.)

Jae Won Yoo, a senior engineering manager of SK Engineering & Construction Co., Ltd. and a geotechnical specialized engineer, has over 25 years of worldwide project experience and demonstrated expertise in providing project management and technical engineering on underground cavern, tunnel and other infrastructure and geotechnical projects. Mr. Yoo has a master of engineering degree in Civil Engineering from Kyung Hee University, Korea, in 1995 and he is also a certified civil engineer in Korea since 1989. Mr. Yoo possesses a wide range of geotechnical engineering experiences involving reinforced soil structures, geosynthetics, deep and shallow foundations and excavation support systems in such projects of the Yeosu crude oil storage cavern project (Korea), Pyeongtaek underground LPG terminal project (Korea), Hannam electric power line construction project (Korea), Strategic storage of crude oil project at Padur (India) and more other major mega projects.

Speaker 9 – Geoffrey Pook (Meinhardt)

Geoffrey Pook graduated from Portsmouth University and obtained his MSc from Cardiff University before joining the environmental and engineering geology sector in the UK. He is currently Senior Engineering Geologist at Meinhardt Infrastructure and Environment Ltd (Hong Kong). He has worked as an Engineering Geologist in both the UK and Hong Kong for over 7 years specializing in excavations in rock and rock support design as well as input in Ground Investigation Works and Natural Terrain Hazard Studies. His work typically covers mega-scale infrastructure projects in Hong Kong and abroad such as rock slope stability assessment at the iconic Panama Canal 4th Bridge, rock tunnel temporary support for the East Coast Rail Link Project in Malaysia and the rock tunnel temporary support for the Liantang/Heung Yuen Wai Boundary Control Point. He achieved his CGeol in 2018 and is a current committee member of the HKRG of the GSL, as well as a member of the IAEG and IOM3. He has contributed papers to the 2018 and 2019 HKIE GDC Annual Seminar on topics covering tunnel excavation and flexible barrier monitoring.



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Note: If your affiliated organisation is one of the above organisations, you are entitled to HK\$650 early-bird registration fee before 31-August-201



Location Plan of Chiang Chen Studio Theatre 蔣震劇院位置圖

