



ANNOUNCEMENT

AGS (HK) Technical Seminar

Deformability Modulus of Rock Mass: In-Situ Tests and Stress Dependency

by

Dr. Mahdi Zoorabadi

- Date** : 1 April 2021
- Time** : 18:30 – 20:00 (Hong Kong Time)
- Venue** : The webinar will be conducted through Zoom.
Successful applicants will be provided a link to the seminar. Participants should arrange for their own device with a stable network environment to join the webinar.
- Enquiry** : For general enquiries, please contact
Haydn Chan (email: haydn.chan@arup.com)
For Technical Seminar enquiries, please contact agshk.org@gmail.com.
- Seminar Fee** : Free of charge
- Registration** : <https://forms.gle/KLHwPP27GtExtN3QA>
Please register by 29th March 2021. Successful applicants will receive webinar details on 30th March 2021. CPD certificate will be sent to the attendees after the webinar.
- Book Prize** : Book prize is open to youth professionals under 35 years old for the submission of a quality report (max. 500 words) on this event. Please refer to the AGS HK website for “The AGS Book Prize Reports – Assessment Framework” for details. The Book Prize reward comprises a book "Geology of Site Investigation Boreholes in Hong Kong" by Chris Fletcher and book coupons worth HK\$300 from Eslite Bookstore (誠品書店). Please send your report to haydn.chan@arup.com.



Synopsis:

Deformability modulus of jointed rock mass is a key parameter which is required for both numerical and analytical analysis of structures in or on the rock mass. Estimation of the deformability modulus is a significant challenge for rock engineers. Most of the rock engineers use existing empirical based equations to estimate the deformability modulus with a little chance to get involved in large scale rock testing to understand the limitation of the empirical based methods. This talk firstly present the old fashioned in-situ rock tests such as Borehole Dilatometer, Plate Jacking, Extra Large Flat Jack which used to be common in the large scale hydropower and underground projects. Then it discusses the stress dependency of the rock modulus which has been ignored in empirical based equations. The deformability modulus of jointed rocks increases with the depth and gets close to the elastic modulus of its intact rock blocks. This behaviour was recorded in the in-situ tests and can be explained by stress dependency of the rock joint.

About the Speaker:

Dr. Mahdi Zoorabadi (BSc, MSc, PhD, MAuIMM CP (Geotech), RPEQ) is principal geotechnical engineer with a multidisciplinary background in rock engineering. He is based in Melbourne office of Golder Associates Pty Ltd providing rock engineering services for both mining and civil infrastructure projects. He is also Adjunct Associate Professor with UNSW, Sydney. Mahdi specialises in rock testing, rock stress measurement, 2D and 3D numerical modelling, groundwater studies, rock slope stability, and primary and secondary support design for underground structures. He developed the rock stress measurement services for Golder Australia.