



## Malaysian Geotechnical Society



### Evening Talk on Geotechnical Aspects of the Economical Design of Retaining Structures: Some Lessons We Have Forgotten by John Davies, Arup Singapore Organised by the Malaysian Geotechnical Society (MGS)



Date / Day : 4 December 2018, Tuesday  
Time : 5.30 pm – 7.00 pm  
Venue : Malakoff Auditorium, 1<sup>st</sup> Floor, Wisma IEM  
No. 21 Jalan Selangor, 46200 Petaling Jaya  
Selangor, Malaysia  
Speaker : John Davies  
Event Fee : MGS Member – Free Admission  
Non-MGS Member – RM 15.00/pax (cash upon walk-in)

#### Profile of Speaker

**John Davies** divides his time between Singapore and Kuala Lumpur and is a Senior Consultant in the Arup Singapore Transport and Resources Group. He is currently Project Manager for the reference design for a number of large diameter bored tunnels to be constructed as part of Changi Airport Terminal 5 Development. Until recently he was Project Manager for the KL MRT Line 3. He has also been Project Director on a number of underground metro projects in Singapore including the initial 5kms section of the Downtown 3 (DTL3) through the centre of Singapore, approximately 11kms of the Thomson Line (packages TSL A&D) and 5kms of the Eastern Region Line (ERL). John has provided geotechnical advice for a wide range of projects in Asia, Africa & Europe, including projects involving innovative foundations and basement designs as well as, slopes, reclamations and geotechnical processes. The railway projects have included advice on all the major metro railways in Hong Kong as well as underground railway projects in Taiwan, Korea, Indonesia and Thailand. He is a past chairman of the HKIE Geotechnical Division and has published widely on geotechnical aspects of design.

#### Synopsis

In this internet age clients are requiring quicker and quicker turn round times for design and in many cases this, with competitive bidding, equates to reduced fees. Therefore, there is less “thinking time” and with the commercial and legal pressures designs are in my view becoming less economical overall. Of course, these aspects are offset by the immense computing power and advanced soil modelling we have at our disposal in developing our design. At the same time government authorities are imposing more and more design requirements. For example, in some jurisdictions limits on movements associated with retaining walls are being imposed on the crest of cut slopes in “green fields” and for pile design additional factors above those required by Euro codes are being applied. Perhaps an indication of this state of the industry is given in the CIRIA Guide for retaining wall design C760 which replaced C580 where the word “economic” is dropped from the title. Never has the concept of the geotechnical triangle developed by John Burland, the interaction of the ground, soil behavior, the soil model and experience been more important. This presentation will touch on some elements of geotechnical design which perhaps have been forgotten in the current fast changing world.

**Ir. YEE Yew Weng**  
**President**  
**Malaysian Geotechnical Society (MGS)**

Please contact the MGS Secretariat, Vincent Ong (+6016-521 8556) if you require further details or email us at [mgs@mygeosociety.org](mailto:mgs@mygeosociety.org).