

## The Institution of Engineers, Malaysia

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# Talk on Recent Developments in the Design and Understanding the Performance of Embedded Retaining Walls

Organised by the Geotechnical Engineering Technical Division, IEM BEM Approved CPD/PDP Hours: 2 Ref No: IEM14/HQ/335/T

### Date : 6 November 2014 (Thursday)

- Time : 5.30 pm 7.30 pm (Refreshments will be served at 5.00pm)
- Venue : Tan Sri Prof. Chin Fung Kee Auditorium, 3rd Floor Wisma IEM, Petaling Jaya
- Speaker : Professor William Powrie

### <u>SYNOPSIS</u>

Over the past 15 years, considerable insights have been gained into aspects of the design and performance of embedded retaining walls through field monitoring supported by numerical and other analysis. The talk will present and discuss three of these:

- The prediction of temporary prop loads in large braced excavations, with respect to measurements and analysis carried out in relation to the London Underground Jubilee Line Extension stations at Canary Wharf and Canada Water
- Installation effects and post-construction behaviour of embedded bored pile retaining walls in an overconsolidated deposit, with reference to a case study on the UK high speed rail line HS1 at Ashford, Kent
- The effect of wall stiffness in reducing bending moments below those calculated using a modern factored limit equilibrium type calculation, by means of a "Mobilizable Strength Design" method for flexible embedded walls.

#### PROFILE OF SPEAKER



**Professor William Powrie** is Professor of Geotechnical Engineering and Dean of the Faculty of Engineering and the Environment at the University of Southampton. His main technical areas of expertise are in geotechnical aspects of transport infrastructure and sustainable waste and resource management. He was selected Fellow of the Royal

Academy of Engineering in recognition of his work in these areas in 2009.

His work in waste and resource management focuses on landfill engineering, and on the development of a sound scientific basis for policy and practice. He led a major EPSRC-funded programme of fundamental research, Science and Strategies for the Management of Residual Wastes, with the aim of enabling and encouraging landfill operation so as to accelerate biodegradation and stabilization of the waste.

He has been Geotechnical Consultant to WJ Groundwater Ltd since 1987. He is the author of the widely respected and best selling textbook, *Soil Mechanics – Concepts and Applications*.

Ir. Yee Thien Seng Chairman Geotechnical Engineering Technical Division, IEM

#### ANNOUNCEMENTS TO NOTE:

• Preferential admission to talk shall be accorded to IEM members (pre-registration and online registration are NOT required).

(telephone and/or fax reservation will NOT be entertained)

- Non members may also attend the talk but will be charged a registration fee of **RM50** and an administrative fee of **RM10**.
- For affiliate members, there will be no registration fee. However, they are requested to produce their membership card as proof of membership. For the list of affiliates, please refer <u>www.myiem.org.my/content/memorandum of un</u> <u>derstanding-469.aspx</u>.
- Limited seats are available on a "first come first served" basis (maximum 110 participants).
- IEM members are required to produce your membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD. *IEM members who fail to produce their membership cards will be charged a fee of RM20.00.*

#### FUNDS FOR IEM BUILDING FUND (WISMA IEM)

- Kindly be informed that IEM will be charging participants **RM10** as administrative fee for talks organized by IEM.
- The fee would be used to cover overhead costs, building maintenance expenses as well as to support the purchase of the new building.
- All contributions will be deeply appreciated by IEM
- Students are however exempted. Your understanding is greatly appreciated.

#### **CPD/PDP HOURS CONFIRMATION**

Name: ...... Membership No: ..... Signature: ....