

# The Institution of Engineers, Malaysia

Bangunan Ingenieur, Lots 60/62, Jalan 52/4, Peti Surat 223, 46720 Petaling Jaya, Selangor Darul Ehsan Tel: 03-79684001/2 Fax: 03-79577678 E-mail: sec@iem.org.my IEM Homepage: http://www.myiem.org.my

# Evening Talk on Finite Element Analysis of **Deep Excavation Problems**

### Organised by the Geotechnical Engineering Technical Division, IEM BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/314/T

#### Date/Day: 23rd August 2016 (Tuesday)

- : 5.30 pm 7.30 pm (Refreshment will be served at 4.30pm, 2<sup>nd</sup> Floor, Wisma IEM) Time
- Venue : Tan Sri Ir. Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM, PJ

Speaker : Dr K.H. Law

#### **SYNOPSIS**

The advances in computer hardware and software have resulted in the application of advanced finite element analysis to geotechnical problems, like deep excavations in the routine design. The finite element analysis can satisfy all the theoretical requirements (e.g. stability, equilibrium, and constitutive relations) and allows the complete history of the boundary value problem to be computed and provide information on all design requirements.

The application of finite element modelling has resulted in considerable advances in the analysis and design of retaining structures, especially in the prediction of the performance of serviceability conditions and the mechanisms of soil-structure interaction.

The objective of this presentation is to gain insight into the mechanisms of soil-structure interaction in deep excavations through 2D and 3D finite element analyses and calibration with field data from welldocumented case histories. The influence of several important aspects in deep excavations is presented and discussed through detailed analyses of case histories.



Dr K.H. Law has 18 years of geotechnical experience since graduation, and his experience includes work with specialist geotechnical and foundation contractors, and in academic research. Currently, he is the principal of KH Geotechnical Services. In his 18 years' professional experience he has involved in the assessment and design of various aspects of geotechnical works. His experience mainly includes collaborating with the specialist foundation and geotechnical contractors in the use of 2D and 3D numerical modelling in practical soil-structure interaction problems such as the design of deep excavations, piled foundations, tunnel-pile interaction problem and effect of deep excavation on piled foundations. He is a registered professional engineer with Board of Engineer Malaysia and member of Institute of Engineers Malaysia since 2004.

## Ir. Yee Thien Seng

Chairman, Geotechnical Engineering Technical Division, IEM

#### NOUNCEMENTS TO NOT

- Preferential admission to talk shall 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 need to pay a registration fee of RM 50 and an administrative fee of **<u>RM 15</u>**. GST is inclusive.
- For members of affiliated organisations, there will be no registration fee payable. However, they are requested to produce their membership card as proof of membership. For the list of affiliated organisations, please refer to IEM website at www.myiem.org.my under International / MoU.
- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- IEM members are required to produce 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 RM 25. GST is inclusive.

#### ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of RM 15 is payable for talks organized by IEM. GST is inclusive.
- The fee would be used to cover overhead costs, building maintenance expenses as well as to contribute to Wisma IEM Building Fund.
- All contributions will be deeply appreciated by IEM.
- Student Members are however exempted.

CPD/PDP HOURS CONFIRMATION
Name:
Membership No/Grade:
Signature:
`