

Evening Talk on Comparison of Conventional Geotechnical Practice with EC7 and Malaysia National Annex for Design of Reinforced Concrete Gravity Retaining Wall

(Organised by the Geotechnical Engineering Technical Division, IEM)

BEM Approved CPD/PDP Hours: 2.0 Ref No: IEM17/HQ/066/T

Day/Date : **Wednesday, 05th April 2017**
Time : **5.30 pm – 7.30 pm**
Venue : **Tan Sri Ir. Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM, PJ**
Presenter : **Ir. TING DENG ING**

SYNOPSIS

In Malaysia, Reinforced Concrete (RC) gravity retaining wall has been commonly designed by engineers based on conventional practices in which adequate margin of overall Factor of Safety (FOS) against potential failure modes, i.e. overturning, sliding and bearing capacity shall be obtained to ensure a safe design. With the introduction of EN1997 Eurocode 7: Geotechnical Design (EC7) and the official publication of Malaysian National Annex, it is understood that the three (3) potential failure modes of RC gravity retaining wall are in principle still required to be considered and checked but according to limit state principles with various partial factors applied to actions or the effects of actions, soil parameters and resistances respectively. This presentation will show the technical comparisons using worked examples of a RC gravity retaining wall which is duly computed based on the conventional geotechnical practice and EC7 with Malaysian National Annex. Besides that, a study is also carried out to compare the two (2) new sets of coefficients of lateral earth pressure for active state in the form of charts and numerical equations as given in Annex C of EC7 with the most commonly used Rankine's and Coulomb's equations with few case scenarios considering different wall friction and slope angle of the retained fill. Malaysian National Annex has also recommended partial modifications to bearing resistance calculation method as given in Annex D of EC7, particularly on equation of N_{γ} factor for bearing resistance calculation and consideration of ground inclination factor. The presentation will address the recommended modifications and its significances to the design of RC gravity retaining wall.

PROFILE OF SPEAKER



Ir. Ting Deng Ing, is a Senior Partner at G&P Geotechnics Sdn. Bhd., one of the largest Geotechnical consultancy firm in Malaysia, which was formed in 1999. He has over 13 years of experience in the field of Geotechnical Engineering. His vast experience includes soil investigation, slope assessment and design, ground treatment design, foundation design and design of various types of retaining structures.

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

ANNOUNCEMENTS TO NOTE

- **Non-IEM members** may also attend the talk but will need to pay a registration fee of **RM50** and an administrative fee of **RM15**. GST is inclusive.
- Limited seats are available on a "first come first served" basis (maximum 100 participants). **To secure your seat, kindly register online at www.myiem.org.my.**

ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of **RM15** is payable for talks organized by IEM. GST is inclusive.
- IEM Student Members are however exempted.

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