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#### REGISTRATION **TWO-DAY SHORT COURSE ON TESTING AND CONSTITUTIVE MODELLING OF THE BEHAVIOUR OF SOILS FOR GEOTECHNICAL APPLICATIONS** (7-8 September 2017)

Name(s)	IEM M'ship No. /Grade	Fees (RM)
SUB TOTAL		
ADD GST @ 6%		
тот		
Company:		

Address:

Mobile: Tel(O):

E-mail:

(Please write clearly as the "Confirmation Notification" will be sent via email)

Fax:

Contact Person:\_\_\_\_\_ Designation:

Signature: Date:

#### **PAYMENT DETAILS**

Cash RM

for the amount of RM Cheque no. (non-refundable) and made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" and crossed 'A/C Payee Only".

#### Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via RHB and Maybank2u-Personal Saving & Personal Current: Credit Card - Visa / Master Card]
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER
- / LO / WALK -IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that payment MUST be made on registration.
- FULL PAYMENT must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. Registration fee includes lecture notes, refreshment and lunches.
- The Organising Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.



Organised by: Geotechnical Engineering Technical Division, The Institution of Engineers, Malaysia

# **TWO-DAY SHORT COURSE ON TESTING AND CONSTITUTIVE MODELLING OF THE BEHAVIOUR OF SOILS FOR GEOTECHNICAL** APPLICATIONS

### Speaker:

Jian-Hua YIN, PhD and Chair Professor of Soil Mechanics Department of Civil and Environmental Engineering The Hong Kong Polytechnic University, Hong Kong, China

Date/Day: 7<sup>th</sup> – 8<sup>th</sup> September 2017 (Thursday – Friday)

> Time: 9.00am - 6.00pm

> > Venue:

Auditorium Tan Sri Prof. Chin Fung Kee, 3rd Floor, Wisma IEM, Petaling Jaya, Selangor Darul Ehsan

### **REGISTRATION FEES (SUBJECT TO 6 % GST):**

Grade	Normal Fee (Registration: Manual or by Fax IEM Website)	Online Fee (Registration: IEM Website)
IEM Student Member	RM 500.00	RM 400.00
IEM Graduate & Member	RM 800.00	RM 700.00
Non-IEM Member	RM 1,600.00	RM 1,400.00

Closing Date: 30th August 2017

GST is implemented effective 1 April 2015 **BEM Approved CPD/PDP Hours: 15.5** Ref. No: IEM17/HQ/260/C

## **COURSE OUTLINE**

This short course consists of three lectures. Lecture 1 will cover conventional and advanced lab test apparatuses, typical test data, interpretation, the stress-strain-strength behavior in 1D, 2D and 3D stress states. Lecture 2 will present simple and commonly used constitutive models. The framework of elastic plastic models is explained. After this, commonly used Mohr-Coulomb elastic-plastic model and critical state models are presented. The advantages and limitations of these models are explained. Lecture 3 presents a 1-D Elastic Visco-Plastic (EVP) model and a simplified Hypothesis B method for consolidation settlement calculation of clayey soils. The main equations and validation of this new method are presented first. The final part includes worked examples of calculation of consolidation settlement of a single or two layered soils.

## WHO SHOULD ATTEND?

This course is intended for those who are fully conversant with classical soil mechanics and are practising geotechnical engineers. The course will provide a useful introduction to modern soil mechanics and is vital to engineers using geotechnical software packages.

## **BIODATA OF SPEAKER**



**Professor Yin** received a BEng degree in 1983 in Chinese Mainland, an MSc degree from Institute of Rock and Soil Mechanics of the Chinese Academy of Sciences in 1984, and a PhD from The University of Manitoba, Canada in 1990. Dr Yin has a mix of industrial and academic experiences. He joined Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University in 1995 as an Assistant Professor. He was promoted to an Associate Professor position in 1999, to

a Professor position in 2002, and recently to the position of Chair Professor of Soil Mechanics in 2014. Professor Yin has a good track record in research and has played a leading role in development of advanced soil testing equipment, innovative fiber optical sensors, establishing a large-scale multi-purpose physical modeling facility for studying geo-hazards, organization of regional and international conferences. His research interests include (i) testing study of properties and behaviour of soils, (ii) elastic visco-plastic modeling, (iii) soft soil improvement, (iv) soil nails and slope analysis, (v) development and applications fiber optical sensors, (vi) soil-structure interface, and (vii) development of advanced/special lab test apparatus. Currently, Professor Yin serves as a Vice-President of International Association for Computer Methods and Advances in Geomechanics (IACMAG), Co-Editor of International Journal of Geomechanics (ASCE), and Co-Editor of Geomechanics and Geoengineering (UK). He has received the honours of the prestigious "JOHN BOOKER Medal" in 2008, "Chandra S. Desai Excellence Award" in 2011 from IACMAG, and delivered the high-status 2011 "Huang Wenxi Lecture" in Chinese Mainland.

#### **TENTATIVE PROGRAMME**

TIME	DAY 1	TIME	DAY 2
08:30am – 09:00am	Registration	08:30am – 09:00am	Registration
09:00am – 11:00am	Laboratory Tests and Real Behaviour of Soils - 1	09:00am – 11:00am	Basic Concepts of Elastic- Plastic Modelling
11:00am – 11:15am	Tea Break	11:00am – 11:15am	Tea Break
11:15am – 13:00pm	Laboratory Tests and Real Behaviour of Soils - 2	11:15am – 13:00pm	Critical State Soil Models
13:00pm –14:00pm	Lunch	13:00pm – 14:30pm	Lunch
14:00 – 15:30pm	Simple and Commonly Used Constitutive Models	14:30 – 15:45pm	1-D Elastic Visco-Plastic Model and a Simplified Hypothesis B Method for Consolidation Calculation of Clayey Soils - 1
15:30 – 15:45pm	Tea Break	15:45 – 16:00pm	Tea Break
15:45 – 17:15pm	Linear and Non- Linear Elasticity	16:00 – 17:15pm	1-D Elastic Visco-Plastic Model and a Simplified Hypothesis B Method for Consolidation Calculation of Clayey Soils - 2
17:15 – 17:30pm	Conclusions	17:15 – 17:45pm	Conclusions
17:30pm – 18:00pm	Question and Answer Session	17:45pm – 18:30pm	Question and Answer Session
18:00pm	End of Day 1	18:30pm	End of Course

#### PERSONAL DATA PROTECTION ACT

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at http://www.myiem.org.my and I agree to IEM's use and processing of my personal data as set out in the said notice.

# **CANCELLATION POLICY**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. No cancellation of registration will be accepted 1 day prior to the date of the event or during the event day. Replacement of substitute name and additional fees however, can be made at least 3 days prior to the event date.