ONE DAY SHORT COURSE ON MITIGATION OF EARTHQUAKE DAMAGE FROM GROUND LIQUEFACTION AND EARLY WARNING TECHNIQUES FOR MITIGATING RAINFALL-INDUCED SLOPE DISASTER

29th May 2016 (Sunday)
8.30 am to 6.00 pm

Venue:
Tan Sri Prof. Chin Fung Kee Auditorium
Wisma IEM, Jalan Selangor
46000 Petaling Jaya
Selangor Darul Ehsan

Organized by:
IEM Geotechnical Engineering Technical Division

Supported by:
The Southeast Asian Geotechnical Society (SEAGS)
The Association of Geotechnical Societies in Southeast Asia (AGSSEA)
The Institution of Civil Engineers (ICE)

Managed by:
IEM Academy Sdn Bhd

CPD Reference: IEM16/HQ/060/C –7 Hours

Registration Fees (Inclusive GST)

IEM, SEAGS, AGSSEA, ICE Members : RM 424.00

Non Members : RM 530.00

For registration, kindly email to:
andrita@iemasb.com or nurul@iem.org.my

For inquiry please visit www.iemasb.com or Call +603-7931 5296

BIODATA OF COURSE PRESENTERS

Professor Kenji Ishihara

Professor Kenji Ishihara was born in Chiba, Japan and started his studies in Civil Engineering at the University of Tokyo, obtaining BS-degree in 1957, MS-degree in 1959, and Ph D. in 1963. During one-year period from 1966 to 1967, he was a Visiting Research Associate at the University of Illinois in Urbana U.S.A. under the guidance of late Professor R. B. Peck. He has been affiliated with the University of Tokyo since then, taking the post of professorship in geotechnical engineering since 1977. On his retirement from the University of Tokyo in 1995 he took up the post of Professor of Geotechnical Engineering at the Tokyo University of Science and then at Chuo University in 2001.

He served for ISSMFE as secretary of Japanese National Committee for the period of 7 years between 1970 and 1976 during which time he attended the Executive Committee meeting of ISSMFE in Sydney, 1971 as a voting member representing the Japanese National Society. Since then, he often represented Japan in several Executive Committee Meetings of ISSMFE and those of Asian region. He acted as Vice-President of Asian region of ISSMFE during the period of 1989-1993.

His major research interest covers problems in the soil dynamics associated with earthquakes, such as liquefaction of sandy deposits, and seismic stability of slopes and earth structures. In conjunction with these cyclic behaviors of sand, he wrote about 250 papers on the above subjects.

He has served on various occasions as consultant or adviser to UNESCO projects (Balkan region and India) and UNDP project (Chile, India and Iran). He has participated in the geotechnical investigations of recent earthquakes worldwide such as those in Romania (1977), Yugoslavia (1979), Chile (1985), Mexico (1985), Ecuador (1986), Soviet Armenia (1988), Soviet Tajik (1989), Philippines (1991) and Iran (1991). He is the author of a book “Fundamentals of Soil Dynamic” (1974) and textbook “Soil Mechanics” (1988) both in Japanese. He recently published from Oxford Press an English book entitled “Soil Behaviour in Earthquake Geotechnics”

He has received honour by being assigned on many occasions to deliver lectures worldwide including the theme lecture in 11th ICSMFE in San Francisco and the 33rd Rankine Lecture of the British Geotechnical Society in 1993. He acted as chairman of the Technical Committee TC4 on Earthquake Geotechnical Engineering in ISSMFE for the two tenures of office from 1985 to 1993. His incessant endeavour in TC4 has led to the periodical holding of the International Conference on Earthquake Geotechnical Engineering of which the first in series was held in Tokyo in 1995 and the second in Lisbon in 999. He has also received honour by being awarded H. B. Seed Gold Medal in 1998 from American Society of Civil Engineers. For his significant contribution, title of Honorary Doctorate was given to him from Technical University of Bucharest, Romania In 1995 and from Istanbul Technical University, Turkey in 1999. In 2000, he was honoured by being bestowed the most prestigious Japan Academy Prize. In 2010, he was elected to Foreign Associate of the United States Academy of Engineering.

In commemoration of his long-time contribution to the profession, International Conference on Earthquake Geotechnical Engineering was held in Istanbul by the effort of Professors A. Ansal and M. Sakr and two volumes of selected papers were published on this occasion containing major publications by Professor Ishihara.

On his retirement from the University of Tokyo in 1995, he took up the post of professionship at the Tokyo University of Science and then at Chuo University in 2001.

BIODATA OF COURSE PRESENTERS

Professor Ikuo Towhata

Professor Ikuo Towhata obtained his Bachelor of Engineering from the University of Tokyo in 1977. He then obtained his Master of Engineering and Doctor of Engineering from the same university in 1979 and 1982 respectively.

He has worked in various capacities at the University of Tokyo, University of British Columbia, Asian Institute of Technology in Bangkok, Chulalongkorn University in Bangkok and the Public Works Research Institute in the Ministry of Construction of Japan. He was professor at the University of Tokyo and is presently visiting professor at the Kanto Gakuin University, Yokohama, Japan. He also is a technical advisor for three private sectors.

Professor Towhata is a member of the Japanese Geotechnical Society, Southeast Asian Geotechnical Society, International Society of Soil Mechanics and Geotechnical Engineering, Japan Association for Earthquake Engineering, Japan Landslide Society and an honorary member of the Nepali Geotechnical Society. He is a Fellow Member of the Japan Society of Civil Engineers and an Associate Member of the Science Council Japan.

He was a member of the boards of the Japanese Geotechnical Society for two terms, Japan Association for Earthquake Engineering for one term and Japan Landslide Society for two terms. He was the Vice Chairman of Editing Committee of Soils and Foundations Journal and the Japanese Geotechnical Society from 1999 to 2004.

He was the International Reviewer of the Journal of Korean Geotechnical Society, Member of Editorial Board for International Journal of Civil Engineering (Iranian Society of Civil Engineers) and the Chairman of Editing Committee of Soils and Foundations Journal (the Japanese Geotechnical Society.He is the Secretary of Kanto Chapter, Japanese Geotechnical Society since 2006 and Chairman of Geotechnical Committee, Japan Society for Civil Engineers since 2007.

Professor Towhata is an Editorial Board Member, Journal of Acta Geotechnica. He was the past Vice President, Japan Association for Earthquake Engineering and was appointed Board Member of the International Society for Soil Mechanics and Geotechnical Engineering from 2009 to 2013. He is the Vice-President for Asia International Society for Soil Mechanics and Geotechnical Engineering and President of the Japanese Geotechnical Society.

Professor Towhata's major field of interest are:

1. Deformation characteristics of cohesionless soils.
2. Dynamic analysis of earth structures during earthquakes.
3. Permanent displacement of ground caused by seismic liquefaction.
4. Soil improvement by densification and grouting
5. Stability of seabed in static and dynamic manners.
6. Thermal effects on mechanical behavior of clays.
7. Microscopic Observation of Granular Behavior of Sand Subjected to Shear
8. Dynamics of landslide and debris flow.
9. Mechanical Properties of Municipal Waste Ground
10. Seismic performance-based design of geotechnical structures
11. Mitigation of rainfall-induced slope instability

He has published 430 papers in international journals and conferences since 1980 and has won numerous awards of excellence for his publications. He has been invited lecturer and keynote lecturer at international conferences since 1995.

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

One Day Short Course on Mitigation of Earthquake Damage from Ground Liquefaction and Early Warning Techniques for Mitigating Rainfall-Induced Slope Disasters

Course Content

The course shall deal with 2 areas of geotechnical engineering:

1. Mitigation of earthquake damage from ground liquefaction, and
2. Early warning techniques for mitigating rainfall-induced slope disasters.

The first covers ground liquefaction induced by earthquakes. It deals in detail with the dilatancy law and friction law which govern the behaviour of sand to provide the understanding for how cyclic loadings can generate pore water pressures leading eventually to liquefaction. The dilatancy law describes the volumetric changes in sand due to shear stress application whilst the friction law covers the fact that the development of shear strains is governed by the shear stress ratio and not by the shear stress itself.

Typical laboratory tests will be described to reproduce the pore water buildup in the field during earthquakes and the results given. Then, the procedure to estimate seismic liquefaction potential in saturated sand deposits in-situ will be illustrated together with several examples. As the consequence of liquefaction being associated with the varying levels of damage that would be represented by the settlement resulting from the dissipation of excess pore water pressures, the method for assessing the settlements will be discussed together with some actual examples of damage.

Ground improvement techniques necessary for mitigating seismic liquefaction shall be described by first presenting the basic principles of mitigation. Then examples of mitigation techniques shall be provided that include soil densification, accelerated drainage, grouting/solidification and underground square grid walls. The mitigation objectives follow the 'performance-based design' principle that allows for the factor of safety less than 1.0 provided the damage is small.

The part on early warning techniques for mitigation of rainfall-induced slope disasters shall provide examples of recent disasters. It describes the role of rock weathering characteristics in landslide processes to support the significance of early warning and evacuation for areas of potential disasters. The use of early warning criteria for rainfall and ground deformation will be discussed together with the limitations of the technique.

IEM ACADEMY SDN. BHD. (1016575-D)

No. 33-1B, Jalan 52/18
P.O. Box 224 (Jalan Sultan)
46720 Petaling Jaya, Selangor Darul Ehsan
(GST ID No. 002028294144)
Telephone No. 03-7931 5296 Fax No. 03-79582851
Email: andrita@iemasb.com or nurul@iem.org.my

REGISTRATION FORM
One Day Short Course on Mitigation of Earthquake Damage from Ground Liquefaction and Early Warning Techniques for Mitigating Rainfall- Induced Slope Disaster.
29th May 2016

Registration Fees (Inclusive GST)

IEM, SEAGS, AGSSEA, ICE Members	**:**	**RM424.00**
Non Members	**:**	**RM 530.00**

*****IMPORTANT NOTICE***** All registration fees must be FULLY paid before commencement of the course. IEM Academy Sdn Bhd reserves the right to refuse entry for participant(s) who have not paid their registration fees to attend the course. THIS REQUIREMENT WILL BE STRICTLY ENFORCED.

No	Name(s) in CAPITALS	M'ship No.	Grade	RM

PAYMENT METHODS

1. Banker's cheque made payable to "IEM ACADEMY SDN BHD"
2. Bank Transfer (Please forward soft copy of payment advise)

Account Name : IEM ACADEMY SDN BHD
Account Number : 21403500139397
Bank Name : RHB Bank Berhad
Bank Address : No. 5, Jalan 52/18, PJ New Town, 46200 Petaling Jaya.
Swift Code : RHBBMYKL

Name of Organization: ……..
Address:.....
.....
.....
Mobile No : ..... Tel (O) : ..... Fax No: .....
Contact Person : ..... Designation : .....
E-mail : ……

(Please print clearly for confirmation of registration purposes)

**I/We understand that the fee is not refundable if I/we withdraw after my/our registration is accepted but substitution of participants will be allowed. If I/we fail to attend the course, the fee paid will not be refunded

Signature:……. Date : ……