

**HALF-DAY SEMINAR ON "ENGINEERING ASPECTS OF BURJ KHALIFA – LESSONS LEARNED AND BEYOND"**  
*(limited places on 'first come first served basis')*

Name of Organization: .....

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Address: .....

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Email: ..... Hand phone: .....

Tel:(O)..... Fax: .....

Contact Person: ..... Designation:.....

I/We wish to enroll the following person(s) for the above-mentioned Seminar:

Name(s)	M/ship No.	Reg. Fee
Total Payable:		

Enclosed herewith a crossed cheque No. .... for the sum of RM ..... issued in favour of "The Institution of Engineers, Malaysia" and crossed 'A/C payee only'. I/We understand that the fee is not refundable if I/we withdraw after my/our application is/are accepted by the Organizing Committee but substitution of participant will be allowed. If I/we fail to attend the workshop, I/we will still pay the registration fee in full.

Signature: ..... Date: .....

**Enquiries**

Please contact the following for further enquiries:

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 c/o The Institution of Engineers, Malaysia  
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**THE INSTITUTION OF ENGINEERS, MALAYSIA**



BEM Approved  
 CPD/PDP Hours: 4  
 Ref. No: IEM11/HQ/149/S

**HALF-DAY SEMINAR ON  
 "ENGINEERING ASPECTS OF BURJ KHALIFA  
 –LESSONS LEARNED AND BEYOND"**

**Date : 30<sup>th</sup> May 2011 (Monday)**  
**Time : 8.30 AM – 1:00PM**  
**Venue : Tan Sri Prof. Chin Fung Kee Auditorium,  
 Wisma IEM**

**Organised by  
 Geotechnical Engineering Technical Division  
 &  
 Civil and Structural Engineering Technical Division**

**Supported by  
 Consulting Engineering Special Interest Group  
 The Institution of Engineers, Malaysia**



8.00	8.30	Registration
8.30	8.45	Welcome and Introduction
8.45	9.45	Burj Khalifa – Design and Construction of the World's Tallest Building
9.45	10.00	Tea Break
10.00	11.00	Beyond Burj Khalifa- Designing the Next Generation of Sustainable Ultra-Tall Projects
11.00	12.00	Wind Engineering – Supercomputing and Wind Tunnel Contributions to the Quest for Sustainable Ultra-Tall Projects
12.00	12.45	Geotechnics and Foundation Designs Associated with Super High-rise Buildings
12.45	1.00	General Discussions

<b>REGISTRATION FEE</b>		
<b>Grade</b>	<b>Normal Offline</b>	<b>Online Registration</b>
IEM Members	RM100.00	RM75.00
IEM Graduate Members	RM70.00	RM50.00
Non Members	RM130.00	RM100.00

**FULL PAYMENT** must be settled before commencement of the Seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the Seminar, the fee is to be settled in full. If the participant failed to attend the Seminar, the fee is not refundable. Registration fee includes lecture notes and refreshment.

For **ONLINE REGISTRATION**, please note that the payment **MUST** be made within 7 days of the registration date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

### **Synopsis of the Seminar**

The quest to create iconic landmarks in Asia is creating significant opportunities for architects engineers, contractors and developers. At the same time, increasing scrutiny is being placed on the environmental credentials of such structures.

This half-day seminar will show how the sustainability of a tall building becomes an advantage. You will hear how the dream of Burj Khalifa, the world tallest building, comes true. Besides the adequacy of design in façade, structures and foundation, the latest energy technology has helped this super tall structure carved his name in building history. The sustainability of building has become a worldwide hot topic and trend that we engineers should realise. We should ponder how we contribute our part in shaping our environment to a better world for ourselves and future generations.

### **Dr Andrew Davids**

Andy Davids is a Director and Professional Board member of Hyder Consulting, and was the Chief Engineer responsible for the structural design certification of the Burj Khalifa, which is the tallest manmade construction in the world.

Andy is the Chief Engineer of the 'Hyder High-rise Design Studio' and is responsible for many of the high-rise projects undertaken by Hyder around the world. He also specialises in sustainable design of high rise projects. His 'studio' currently has 7 towers ranging from 60 to 160 storeys, under various stages of design and construction. Andy also holds a Chair in Architecture at the University of Sydney, and serves on several International Code Committees. He was recently appointed by the CTBUH (what is CTBUH?) as the "Leader in High Rise Construction in the United Arab Emirates"

### **Dr Eric SF Li**

Eric Li is a Managing Director of Hyder Consulting responsible for the engineering operation in East Asia Region. He has over 25 years experience in civil and geotechnical engineering on major projects in the UK, Hong Kong, Middle East and China. His experience covers hard-rock and soft-ground tunnelling, ground improvement, deep excavation, piled foundation, slope engineering.

Eric graduated from University of London in 1986 and continued to carry out research in the field of numerical modelling on geotechnical structures, which led to his PhD in 1990. Eric was the Chairman of the Hong Kong Institution of Engineers, Geotechnical Division in 2006/07 and he still sits on a number of Government Boards and Committees. He has published over 10 technical papers on wide ranging topics in Geotechnique, Ground Engineering and in various conferences & seminars.

### **Angus McFarlane**

Angus McFarlane is Regional Technical Director of Hyder Consulting. He is a Fellow of both the Institution of Structural Engineers and the Institution of Civil Engineers. He specialises in seismic design and has a particular interest in earthquake hazard in the Arabian Gulf.

Angus has comprehensive design experience in high-rise and ultra-tall buildings; high-strength concrete; structural dynamics and soil-structure interaction. Angus was responsible for the design certification of the 160-storey Burj Khalifa, Dubai. His other projects include the Emirates Towers and the Burj Al Arab. These buildings are amongst the tallest towers in the world.

Angus was a member of the steering group for, and is a contributing author to, the Concrete Society's Guide to Design of Concrete Structures in the Arabian Peninsula, which was published in October 2008. He has made several presentations throughout the Middle East, Asia and Europe. His paper on the design of high-strength concrete columns was published by the Institution of Structural Engineers in 2007.

### **Dr. Volker Buttgerit**

Having gained professional qualifications as an aeronautical engineer at the Department of Aeronautics at Imperial College London, Volker Buttgerit completed post graduate research in numerical and physical modelling of aerodynamic and hydrodynamic flows for axial flow turbines used in the conversion of wave, tidal and wind power leading to a PhD in unsteady fluid dynamics.

Dr. Buttgerit commenced his working career in the Future Projects Department of Deutsche Aerospace Airbus in Hamburg, Germany. During this time he gained substantial experience in aerodynamic design of aircraft wings and wing body combinations using experimental and computational assessment methods. Following completion of his post graduate studies at Imperial College he worked as wind engineer at Ove Arup in London gaining experience in all aspects of wind engineering for large scale civil structures.

Dr. Buttgerit joined BMT Fluid Mechanics Limited in 1999 as project manager in the Fluid and Structural Mechanics Department's Civil Structures Group, of which he became a manager in 2001. During this time he has gained significant experience in all aspects of tall and super-tall building aerodynamics, aerodynamics of long span bridges, large roof structures and building physics. He has project managed a number of the Departments' high profile projects in the UK and mainland Europe as well as the Middle East and the Far East.

### **Dr. L. Tony Chen**

Tony is a Technical Director of Hyder Consulting. He is a chartered civil and geotechnical engineer in both Hong Kong and Australia, and has over 20 years working experience in the field of civil and geotechnical engineering. He has worked on major projects in China, Australia, Hong Kong, Vietnam, UAE, Qatar, Bahrain, Malaysia, Thailand, and has extensive experience in the design and construction of deep foundations, deep excavations, tunnels, ground improvements, slope stabilization, etc. He is also conversant with numerical analysis and with use of 2D and 3D computer software including Plaxis 3D. Tony has published over twenty technical papers in international journals and conferences related to ground settlement, piling, excavation and tunnelling. He has spent three years working in both Qatar and Dubai.

