







### Half-day Seminar on

### **Essentials and Advances in Steel Structures**

# from Design to Construction

Organized by
Young Members Group, The Hong Kong Institute of Steel Construction
Supported by

Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University Joint Structural Division, The Hong Kong Institution of Engineers

Date: 4 December 2015 (Friday)

Venue: N002, The Hong Kong Polytechnic University, Hung Hom, Kowloon

Time: 1:45 pm (registration) for 2:00 pm to 5:30 pm

#### Scope and Objectives

In recent years, steel occupies a more important position in construction industry when compared with other construction materials, especially for those landmark buildings and structures. Steel is preferably selected as the principal material for long-span roofs, space frames and high-rise buildings etc.

This half-day seminar aims to provide engineers an insight to the use and the design of steel in construction. The seminar will cover the general design principal in steel structures, analysis methods according to the Code of Practice for the Structural Use of Steel 2011, essential considerations in design of steel connections, and the overall arrangement and challenges in construction of steel structures.

#### Speakers

Mr. Hayden Nuttall is a Director of BuroHappold Engineering and is based in Hong Kong. He has over 30 years' experience in design and construction, gained working on a large number of challenging projects around the world. He has particular expertise in tall and super-tall buildings, mixed-use developments, long span structures, cultural buildings, footbridges and structures with complex geometry. Hayden has worked on many high-profile steelwork projects in South East Asia including: XRL Train Station Roof (Hong Kong); Canton Tower (Guangzhou); City of Dreams (Macau) Cheung Kong Centre (Hong Kong); Boundary Crossing Facility (Hong Kong); Cheung Kong Centre Footbridge (Hong Kong)

**Dr. Si-Wei Liu** is currently the Postdoctoral Fellow in the Civil and Environmental Engineering department of Hong Kong Polytechnic University. He has published 8 SCI papers in the top journals and 10 conference papers. He also received the "FCE awards for Outstanding PhD Theses 2013/14", who is the only one awardee in the structural and civil discipline in the PolyU. He has also developed some computer software, e.g. RCD 2014 for biaxial bending analysis of regular and complex sections. He has also actively participated into actual projects of steel, RC and composite structures in Hong Kong, Macau, United Kingdom, Myanmar, Singapore and Mainland China and so on.

**Dr. Y.P. Liu** is a research fellow in department of Civil and Environmental Engineering, The Hong Kong Polytechnic University. He has been involved in development of many software including NIDA, NAF-SHELL and RCD2004. He is the chief programmer of NIDA which is the software for









the linear and directly analysis and design according to Code of Practice for the Structural Use of Steel 2011. Dr. Liu is the member of committee for Code of Practice for the Structural Use of Steel 2011 (Chinese version). He has been also involved in the design of many steel structures and seismic evaluation of existing buildings in Hong Kong, Macau, Singapore, India and Myanmar.

Mr. Chris Tidball, an Associate working for Arup in Hong Kong, the East Asia Manager for Arup Structural Skills Network and the Quality manager for one of the Hong Kong office structural groups. He has been working in Arup since his postgraduate study in Cambridge University in 1999 and transferred from the UK to Hong Kong in 2011. He was responsible for steel structures of the 200m span roof of Abu Dhabi International Airport Midfield Concourse, award winning precast concrete tanks for the Thames Tideway Tunnel upgrade, steel frames for heavy industrial facilities such as Hong Kong Sludge Treatment Facility and NEG Glass Factory, blast resistant structures for Royal Ordnance at Glascoed and Bridgewater, forensic analysis for structural failures at Cardiff WwTW and Pirbright Institute for Animal Health, etc. He is also a technical reviewer for the IStructE Technical Publications Panel which commissions and approves all IStructE reports.

**Ir. Chan Chi Fat** is a Construction Manager of Gammon Construction Limited. He has a wide range of experience in steelwork design, production and installation. He is a specialist in welding technology and inspection. Ir. Chan manages the A&A works in building projects; design and build of concrete batching plant; and preconstruction in various tenders. He is also the in-charge manager of the recent Harbourfront Extension, Midfield Concourse and 810A project, to lead the project team in construction of steel building, long span steel roofs and steel composite columns in massive volumes.

**Ir.** Chan Kin Wing is the Senior Project Manager of the Central Police Station (CPS) Conversation and Revitalisation project of Gammon Construction Limited. He is responsible for supply, fabrication and erection of structural steel frame for the two new buildings in the CPS project.

#### Official Language

English will be the official language of the Seminar for both oral and written presentation.

#### Fees & Registration

The registration fee includes a copy of proceedings, a copy of CPD certificate, 1 tea refreshment. Regular Registration: **HK\$ 250** each for HKISC-YMG Members; **HK\$ 600** each for HKISC/

HKIE Members:

HK\$ 800 each for Non-members.

Group Registration: **HK\$ 600** each for group registration of at least 5 people.

#### CPD Certificates

This seminar is recommended for **HALF** CPD day. An attendance certificate will be issued.

Please send the completed registration form with registration fee to **Ms. Carol Deng**, The Hong Kong Institute of Steel Construction, Room ZS972, Department of Civil and Environmental Engineering, *The Hong Kong Polytechnic University, Hung hom, Kowloon* **by 27<sup>th</sup> November 2015** (Email: <a href="mailto:carol.deng@hkisc.org">carol.deng@hkisc.org</a>, Fax No.: (852-2334 6389). You can download this form on HKISC web (<a href="http://www.hkisc.org">http://www.hkisc.org</a>). For enquiry, please contact Ms. Carol Deng at email <a href="mailto:carol.deng@hkisc.org">carol.deng@hkisc.org</a> or Mr. Sam Chan at email <a href="mailto:samchan@hkisc.org">samchan@hkisc.org</a>.









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Time	Program			
1:45 pm	Registration			
2:00 pm	Welcome Speech Ir. Dr. Goman Ho Advisor of Young Members Group, the Hong Kong Institute of Steel Construction			
Lecture 1	Essentials for the Design of Steel Structures			
2:10 pm	Mr. Hayden Nuttall Director, Buro-Happold Engineering			
Lecture 2 2:50 pm	Second-order Direct Analysis Method for Steel Structure according to Code of Practice for Structural Use of Steel 2011  Dr. S.W. Liu  Postdoctoral Fellow, The Hong Kong Polytechnic University  Dr. Y.P. Liu  Research Fellow, The Hong Kong Polytechnic University			
3:30 pm	Q & A (1)			
3:40 pm	Tea Break			
Lecture 3 3:55 pm	Steel Connections or: How I Learned to Stop Worrying and Love the Bolts Mr. Chris Tidball Associate, Ove Arup & Partners HK Limited			
Lecture 4 4:35 pm	Practical Aspect for Structural Steel Construction - Central Police Station Conversation and Revitalisation Ir. C.F. Chan Construction Manager, Gammon Construction Limited Ir. K.W. Chan Senior Project Manager, Gammon Construction Limited			
5:15 pm	Q & A (2)			
5:25 pm	Closing Remark Dr. Alfred Fong Chairman of Young Members Group, the Hong Kong Institute of Steel Construction			
5:30 pm	End of Seminar			









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### REGISTRATION FORM (*To be replied on or before 27<sup>th</sup> November 2015*)

Please follow the 2 steps registration procedure:

- 1. Fax the completed registration form to Ms. Carol Deng (Fax: 852-2334 6389) for preliminary registration.
- Post the completed registration form together with a crossed cheque payable to <u>Hong Kong Institute of Steel Construction</u> <u>Limited</u> to Ms. Carol Deng, HKISC c/o Room ZS972, Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hung hom, Kowloon, Hong Kong, China on or before <u>27<sup>th</sup> November 2015</u>

To: Ms. Carol Deng				Fax: 852- 2334 6389		
A. Per	rsonal Details:					
Title	Name in full (Block Letter)	Name of Company	Tel.	E-mail address	HKISC/HKIE Membership No.	HKISC YMG Member (Tick)
1.						
2.						
3.						
4.						
5.						

Postal Address (for official receipt):

**B. Registration Details:** 

	Item	Registration Fee	Total no. of registration	Sub-total	
1.	Regular registration (Member*price)/ Group registration (at least <u>5</u> people)	HK\$600 each x	person(s)	= HK\$	
2.	Regular registration (Non-member*price)	HK\$800 each x	person(s)	= HK\$	
3.	Regular registration (HKISC YMG**price)	HK\$250 each x	person(s)	= HK\$	
	Total amount:				

			<b>Total amount:</b>	HK\$		
١	Note: The registration fee includes a copy of proceedings, a copy of CPD certificate and tea refreshment *HKIE or HKISC member / ** HKISC YMG member					
	enclosed a crossed cheque (cheque noaptioned Seminar.	_) with the sum of HK\$	for the reg	sistration fee of t	he	
5	ignature: Date:		_			
	CPD Certificates of Attendance Please tick the app	propriate box to indicate your	r choice:			

Yes, I/ we would like to have CPD certificate(s). Not request for certificate(s).