



The Hong Kong Institution of Engineers
Building and Joint Structural Divisions



香港
鋼結構學會
Hong Kong Institute of
Steel Construction



Second announcement
THE HONG KONG POLYTECHNIC UNIVERSITY
DEPT. OF CIVIL AND STRUCTURAL ENGINEERING
香港理工大學
土木及結構工程系

TWO-DAY WORKSHOP + ONE-DAY TECHNICAL VISIT USE OF STEEL HOLLOWS IN DESIGN AND CONSTRUCTION OF BUILDINGS - 2010

Organized by
Hong Kong Institute of Steel Construction
Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

Supported by
AECOM
Building and Joint Structural Divisions, The Hong Kong Institution of Engineers
Department of Civil Engineering, The University of Hong Kong
Meinhardt (C&S) Limited
Ove Arup & Partners (HK) Limited

Organizing Sponsor
Vallourec & Mannesmann Tubes Limited

Date:	21-22 October 2010 (workshop) + 23 October 2010 (technical visit)
Venue:	M1603, The Hong Kong Polytechnic University, Hung Hom, Kowloon, HK (workshop)

Scope and Objectives

In recent years, steel becomes a popular building material for prestigious peculiar shape cyber-ecture projects in Hong Kong and the region. This workshop is aimed to enhance the skills of engineers and building professionals in designing and fabricating steel and composite tubular sections to Hong Kong Steel Code and the Eurocode.

Steel hollow sections, circular, square, rectangular and even oval, are some of the most efficient structural sections under compression loading. The use of steel hollows in building construction has become more popular due to architecturally aesthetic appearance and structural efficiency. Furthermore, these steel hollows in-filled with concrete will increase the structural capacity. It is this great enhancement in structural capacity that member sizes can significantly be reduced, rendering attractive visual and spacious impact on the building layout. Application of steel hollows can be found at Guangzhou TV & Sightseeing Tower and at structures in Sentosa, Singapore.

The two-day workshop plus one-day technical visit will be scheduled on 21, 22 & 23 October 2010. The workshop will explore the design and construction of steel hollows and connections with case studies, and in particular, the problem solving in design, shape forming, welding, and NDT of steel hollows. The workshop materials will be based on the Hong Kong Code of Practice for Structural Use of Steel 2005 and Eurocode 3 (EN 1993-1).

Speakers will comprise Dr S HERION of Competence Center of Tubes and Hollow Sections CCTH and of Karlsruhe University, Germany as well as some German specialists of V&M Company, Ir Prof S L CHAN and Ir Dr W T CHAN of The Hong Kong Institute of Steel Construction. Engineers and designers in private sector and government who are working in building construction industry are most suitable to attend the workshop and technical visit as the steel hollow construction would lead to economical and efficient design solutions. Lecture notes will be provided.

The one-day technical visit will be specially arranged on 23 October 2010 to visit salient steel structures such as Hong Kong Design Institute (Tiu Keng Leng) and Hong Kong Science Park (Ma Liu Shui) in Hong Kong using steel hollows. Brief account will be given on the structural design background of these steel structures followed by discussion forum tailor-made for each visiting venue. Lunch at Hong Kong Science Park and transportation to and fro Kowloon Tong MTR Station will be provided. Places are limited and will first be reserved for HKISC and HKIE members.

CPD certificate will be given to each participant. Concessionary rate will be given for early bird registration on or before 15 September 2010. Please make your reservation now. The fees of the workshop cum technical visit are as follows: -

Programme	HKISC and HKIE members	Non-HKISC and Non-HKIE participant	HKISC and HKIE members	Non-HKISC and Non-HKIE participant
Day 1 Workshop	HK\$ 2,100 (less \$250 for early bird registration)	HK\$ 2,500 (less \$250 for early bird registration)	HK\$ 1,000 (less \$100 for early bird registration)	HK\$ 1,200 (less \$100 for early bird registration)
Day 2 Workshop			HK\$ 1,000 (less \$100 for early bird registration)	HK\$ 1,200 (less \$100 for early bird registration)
Day 3 Technical Visit			HK\$ 300 (less \$50 for early bird registration)	HK\$ 400 (less \$50 for early bird registration)

Should you have further query, please do not hesitate to contact Mr. Sam CHAN at samchan@hkisc.org .



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REGISTRATION FORM (To be received on or before 12 October 2010)

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) for preliminary registration.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

The Hong Kong Institute of Steel Construction
c/o Room TU743, Department of Civil and Structural Engineering,
The Hong Kong Polytechnic University, Hungghom, Kowloon, Hong Kong

on or before 30 September 2010

To: Mr Sam CHAN

Fax: 852- 2334 6389

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	Fax	E-mail address	Institution/ Membership No.

Item	Registration Fee (please circle the price for selected day of attendance)				Total
	Day 1 21 Oct 10	Day 2 22 Oct 10	Day 3 23 Oct 10	All 3 days 21 - 23 Oct 10	
Regular registration (Member price)	HK\$ 1,000 (less \$100 for early bird registration)	HK\$ 1,000 (less \$100 for early bird registration)	HK\$ 300 (less \$50 for early bird registration)	HK\$ 2,100 (less \$250 for early bird registration)	= HK\$ _____
Regular registration (Non-member price)	HK\$ 1,200 (less \$100 for early bird registration)	HK\$ 1,200 (less \$100 for early bird registration)	HK\$ 400 (less \$50 for early bird registration)	HK\$ 2,500 (less \$250 for early bird registration)	= HK\$ _____

Postal Address
(for official receipt):

I enclose a crossed cheque (no. _____) with a sum of HK\$ _____ for the registration fee of the captioned Workshop / Technical Visit.

Signature: _____ Date: _____

CPD Certificate of Attendance Please tick the appropriate box to indicate your choice:

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

2-Day Workshop on Use of Steel Hollows in Design and Construction of Buildings - 2010

Day 1 : 21st October 2010 - Tubular sections

Time	Programme
9:00-9:15am	Welcome and Introduction
9:15-9:45am	Introduction and Basics of HK Steel Code 2005 Prof. S L Chan and Dr. Y P Liu
9:45-10:15am	Introduction and Basics of Eurocode 3 (EN 1993) Dr S Herion
10:15-10:45am	Tea break
10:45-11:15am	Background and basics of design of welded joints of hollow sections to HK Steel Code and Eurocode 3 (EN 1993-1-8 and EN 1993-1-12) Dr. S Herion and Dr W T CHAN
11:15-12:45pm	Design of joints made of CHS to Eurocode 3 (EN 1993-1-8) Dr. S Herion
12:45-2:15pm	Lunch Break
2:15-3:00pm	Design of joints made of RHS to Eurocode 3 (EN 1993-1-8) Dr. S Herion
3:00-3:30pm	Product innovation for MSH sections: high strength hollow sections and tighter corners Dr. M. Schneider
3:30-4:00pm	Tea break
4:00-5:00pm	Hot-rolled seamless hollow sections – Production and Advantages Pre-fabricated system PREON Design example PREON truss girder Mr. Ole Josat
5:00-5:15pm	Time for questions and discussions
Day Two : 22nd October 2010 - Composite sections	
9:00-9:30am	Background of composite design of hollow sections to HK Steel Code Prof S L Chan and Mr. M Fong
9:30-10:30am	Composite design according to Eurocode 3 (EN 1993, EN 1994) and CIDECT Dr. S Herion
10:30-11:00am	Tea break
11:00-12:30pm	Design examples of uniplanar truss under static load and fire load Dr. S Herion
12:30-2:00pm	Lunch Break
2:00-3:15pm	Case Study 1 : Use of concrete in-filled steel hollows in Guangzhou TV & Sightseeing Tower Case Study 2 : Quality assurance and workmanship of steel hollows Prof. S L Chan, Dr. W T Chan, Dr. S Herion and representative from OAP
3:15-3:45pm	Tea break
3:45-4:45pm	Case Study 3 : Use of steel hollows in structures at Sentosa, Singapore New Developments: Post weld treatment with High Frequency Hammer Peening (Investigations, Design procedure, Examples) Prof. S L Chan, Dr. W T Chan, Dr. S Herion and representative from Aecom
4:45-5:00pm	Questions and discussions

One-day Technical Visit

Day 3 : 23rd October 2010 - Technical visit to Hong Kong Design Institute and Hong Kong Science Park on steel hollows construction (9 am to 5 pm). Lunch at Hong Kong Science Park and transportation to and fro Kowloon Tong MTR Station will be provided. Detailed arrangement will be announced later.