

Half-day Seminar on Advanced Design of Scaffolds

Organized by

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:	9 September 2015
Venue:	Y304, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong.
Time:	8:45 am (registration) for 9:00 am to 12:30 pm

Scope and Objectives

Stability design of scaffolds is one of the most complex design exercises because of eccentric load paths, lean structural members and the limitation of the effective length method. One of the most important features of Eurocode 3 relates to its provisions for using second-order analysis with appropriate imperfections to directly design steel structures without further consideration of effective lengths and member buckling checks.

The advanced direct analysis method (ADAM) for stability design of scaffolds will be discussed in this course and a practical nonlinear spring element to complete the modelling of structural scaffold systems shall be introduced. This direct method considers P- Δ and P- δ effects and frame and member imperfections. Therefore the effective length assumption for stability design may be skipped and a safer, more economical design can be achieved. Attendees can expect to learn about the wide range of applications of scaffolds in U.K. and Europe, their ultimate limit state, why ADAM is required for scaffold design and the practical implementation of ADAM for all steel structure to facilitate reliability management of the design and from there the execution of the project. This first part of the lecture is about the theoretical background followed by the second lecture on practical application of the advanced analysis and design of scaffolding.

About the Speaker, Mr. Stephen McCrory, B.Sc., DIC, MSc, MICE, CEng

Stephen is an honours graduate of Queens University Belfast with Diploma of Imperial College and Postgraduate Master's Degree from Imperial College in Structural Engineering. He is a Corporate Member of the Institution of Civil Engineers and a Chartered Civil Engineer. Having spent twenty successful years as a full time civil/structural design engineer director and multi-discipline civil engineering project manager director, he progressed in 2011 to specialise in his field of engineering under the supervision of Ir Prof SL Chan and Prof Leroy Gardner for research of nonlinear analysis with applications to temporary structures. Stephen set up NidaEurope to assist design of steel structures by nonlinear and second order analysis and is collaborating with Imperial College London and Hong Kong PolyU on research development whilst working as a civil engineer on key projects.

Official Language

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

Fees & Registration

The registration fee includes a copy of lecture note and tea refreshment.

Regular Registration: **HK\$ 600** each for HKISC/ HKIE Members; **HK\$ 800** each for non HKISC/ HKIE 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 , Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon by 4th September 2015 (Tel: 852-2766 6051 Fax No.: 852-2334 6389). You can download this form on HKISC web (http://www.hkisc.org). For technical information, please contact MS Carol DENG at 9280 7697 .
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REGISTRATION FORM (*To be replied on or before 4th September 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.
2. Post the completed registration form together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to Ms Carol DENG, at:
HKISC c/o Room ZS972, Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hunghom, Kowloon on or before **4th September 2015**

To: Carol DENG

Fax: 852- 2334 6389

A. Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel. (or Fax)	E-mail address
1.				
2.				
3.				
4.				
5.				

Postal Address: _____

B. Registration Details:

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

Note: The registration fee includes a copy of proceedings, a copy of CPD certificates, 2 tea refreshments and 1 lunch for each day of attendance.

*HKIE or HKISC member

I enclosed a crossed cheque (cheque no. _____) with the sum of HK\$ _____ for the registration fee of the captioned Symposium.

Signature: _____ Date: _____

CPD Certificates 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).

FIRST ANNOUNCEMENT

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Time	Program
8:45 am	Registration
Lecture 1 9:00 am	Background of temporary structures
Lecture 2 9:45 am	Theory of second order analysis applied to scaffold design
10:30 am	Tea Break
Lecture 3 11:00 am	Practical consideration for erection of scaffolds
Lecture 4 11:45 am	Demonstration of design of scaffolds by second order analysis
12:30 pm	End