



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



香港
鋼結構學會
Hong Kong Institute of
Steel Construction

1-day intensive seminar on the

**Introduction of Eurocode 4 on
Design of steel and composite structures**

Professor Dennis Lam

B.Eng, M.Phil, Ph.D., CEng, EurIng, FStructE, MICE, MASCE

Ir Professor S.L. Chan

Ph.D., FHKIE, MStructE, FHKISC, FSSSS, RPE, CEng, 1RSE-PRC

3 April 2012 (Tuesday)

Jointly organized by

The Hong Kong Institute of Steel Construction

&

Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

Sponsored by

The Civil Division, HKIE (to be confirmed)

The Structural Division, HKIE (to be confirmed)

Date:	3 April 2012 (Tuesday)
Venue:	Room FJ303, Hong Kong Polytechnic University, Hung Hom Kowloon
Time:	8:45 am (registration) for 9:00 am to 5:30 pm

Scope : Civil Engineering works in Hong Kong will likely adopt the Eurocode for structural design soon and understanding and practice of the Eurocode will likely become indispensable to engineers working locally and overseas.

The Structural Eurocode 4 has already been in use in the UK and Europe for the design of steel and composite structures since April 2010. As such, this seminar is intensively organized in promulgating the concept and rationale adopted behind the Eurocodes with a view to better grasping and understanding the Code. The speaker Professor Dennis Lam has been extensively involved in teaching, research and drafting of some of the codes and he will introduce to engineers about the features of a series of Eurocodes, with particular emphasis on structural applications via Eurocode 4 on design of steel and composite structures. Eurocode-3 has been generally commented as a computer biased code and Professor SL Chan will further discuss the use of computer-based method for checking of safety and stability of steel structures using the so-called non-linear and second-order direct analysis for steel structures.

Objectives : The aim of the seminar is to provide practicing engineers with an introduction to the frameworks of Eurocodes and design of steel and composite structures to Eurocode 4.

Speakers :

Professor Dennis Lam is the Chair of Structural Engineering at the University of Bradford and was formerly the Reader in Structural Engineering and Steel Design at the School of Civil Engineering, University of Leeds, UK. He was also formerly a Chief Structural Engineer for the City of Wakefield Metropolitan Council. He is a Chartered Engineer, Fellow of the Institution of Structural Engineers and Member of the Institution of Civil Engineers. He holds a B.Eng (Hons) in Civil & Structural Engineering and M.Phil. from the University of Sheffield and a PhD from the University of Nottingham. He is currently a Visiting Professor at the Hong Kong Polytechnic University. He is the President of Association for International Cooperation and Research in Steel – Concrete Composite Structures and vice chair of the research panel for the Institution of Structural Engineers, U.K. He is also a member of the British Standard Institute B525 and the European Standard Committee CEN/T250/SC4 responsible for the BS5950 and Eurocode 4. His main research interests are in the area of steel and composite structures, including the use of stainless steel, precast concrete and fibre reinforced polymers and has published more than 100 journal and conference papers in these areas.

Ir Professor S.L. Chan is now teaching in the Department of Civil and Structural Engineering of The Hong Kong Polytechnic University. Professor Chan's research interests include the stability analysis and design of steel, nonlinear finite element analysis, glass and slender skeletal structures, steel, bamboo and aluminum scaffolding, pre-tensioning steel structures and recently on rock-barrier nets against rock falls and mud slides. He has published more than 270 papers in journals, books, conferences and keynote/invited papers in major steel conferences overseas. His book, "Non-linear static and cyclic analysis of steel frames with semi-rigid connections, Elsevier, 2000, pp.336", summarizes his work before 2000. Currently, Ir Professor Chan is the chief and founding editor of the international journals "Advanced Steel Construction" published in Hong Kong, "Steel and Composite Structures (2002-2005)" published in Korea and the regional editor of "International Journal of Applied Mechanics and Engineering" published in Poland. He also serves as a member of editorial boards in 9 other international and Chinese journals, and also members of ad-hoc committees in drafting guides for design of steel and glass structures in Hong Kong and the U.K. He was also elected as a member representing Hong Kong in the Research Panel of the Institution of Structural Engineers, U.K. and a member of expert panel of the American Institute of Steel Construction (AISC), the President of the Hong Kong Institute of Steel Construction (HKISC) and an adjunct professor at the Southeast University in Nanjing, Harbin Institute of Technology in Harbin and Tongji University in Shanghai. He is also a member of the editorial team for the textbook "Structural Uses of Glass" published by the Institution of Structural Engineers, U.K. which has been used as a guidebook for design of glass structures in U.K., Hong Kong and the Southeast Asia. Recently, as a research team member of the Tongji University, Professor Chan was given the first class award for research in steel structures by the Education Ministry in the Mainland China. He is the first principal consultant of the Code of Practice for the Structural Uses of Steel 2011 in Hong Kong published by the Buildings Department. He developed a new, practical design method bypassing the prescriptive use of charts and tables in Code and coded the method in his developed computer program, Nida which has been applied to the design of a number of practical steel structures including some of the iconic steel structures in Hong Kong, Singapore, Mainland, Taiwan and Macau such as the Tamar Government Headquarters, Cool Moist and Cool Dry observatories and Sands casino in Singapore and the 2008 award winning projects in Hong Kong and Macau. The software Nida has been used by universities and companies in Australia, China, Hong Kong, Singapore, Taiwan, and U.K. for teaching, research and practical design.

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 lecture note

Regular Registration: **HK\$ 900** each for HKISC/ HKIE Members; **HK\$ 1000** each for others

Group Registration: **HK\$ 900** each for group registration of at least 5 people

CPD Certificates

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

Please send the completed registration form with registration fee to Mr. Sam Chan, c/o TU743, Department of Civil and Structural Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon by **15th** March 2012 (Fax No.: 852-2334 6389). You can download this form on HKISC web (<http://www.hkisc.org>). Should you have further query, please do not hesitate to contact Mr. Sam CHAN at samchan@hkisc.org.



Seminar

Introduction of Eurocode 4 on Design of steel and composite structures

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

Date:	3 April 2012 (Tuesday)
Venue:	Room FJ303, Hong Kong Polytechnic University, Hunghom Kowloon
Time:	8:45 am (registration) for 9:00 am to 5:30 pm

REGISTRATION FORM

(To be replied on or before 15th March 2012)

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:

Room TU743, Department of Civil and Structural Engineering,
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong, China.

on or before the deadline.

To: **Mr. Sam Chan**

Fax: **852- 2334 6389**

A. Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	E-mail address	Membership No.
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)	HK\$ 900 each x	_____ person(s)	= HK\$ _____
2. Regular registration (Non-member*price)	HK\$ 1000 each x	_____ person(s)	= HK\$ _____
3. Group registration (at least <u>5</u> people)	HK\$ 900 each x	_____ person(s)	= HK\$ _____
Total amount:			HK\$

Note: The registration fee includes a copy of lecture notes, a copy of CPD certificate and 2 tea refreshments. Lunch is not included.

**HKIE or HKISC member*

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

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).



Introduction of Eurocode 4 on Design of steel and composite structures

3 April 2012 (Tuesday)

Date:	3 April 2012 (Tuesday)
Venue:	Room FJ303, Hong Kong Polytechnic University, Hunghom Kowloon
Time:	8:45 am (registration) for 9:00 am to 5:30 pm

Seminar Programme:

Time	Program	Speaker
08:45 - 09:00	Registration	
09:00 - 10:30	Introduction – Background of the Structural Eurocodes, basic of design, difference to the BS5950. EN1990, EN1991. Evolution of Eurocodes and summary of current situation.	D. Lam
10:30 - 11:00	Tea break	
11:00 - 12:00	Direct and indirect analysis. Second-order analysis to EN1993 Initial member curvature and out-of-plumbness. Methods to consider imperfections. Examples on design of practical steel frames using second-order computer analysis software.	S.L. Chan
12:00 - 14:00	Lunch	
14:00 - 15:30	Design of steel and composite structures. Introduction to design of Composite Structures to Eurocode 4. Overview of Composite design coverage of Eurocode 4. Shear connection behaviour	D. Lam
15:30 - 16:00	Tea break	
16:00 - 17:00	Design of steel and composite structures. Composite slabs and composite beams design and the interaction with Eurocode 2 (concrete) and Eurocode 3 (steel)	D. Lam
17:00 - 17:15	Discussion	
17:15 - 17:30	End of seminar and collection of CPD certificates	