1st Announcement

Half-day Technical Seminar

Innovations in Structural Design: Modular Construction, Connections and Long-Span Roofs

Organized by
The Hong Kong Institute of Steel Construction
Sponsored by
Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University
Structural Division, The Hong Kong Institution of Engineers

Date:	**14th November 2025, Friday**
Time:	**1:40pm registration for 2:00 pm – 5:00 pm**
Venue:	**Room Y304,** The Hong Kong Polytechnic University, Hung Hom, Kowloon
CPD:	This seminar is recommended for 3 CPD hours
Certificate:	An attendance certificate will be issued upon request.

Abstract

This half-day seminar brings together leading practitioners and researchers to share recent advances in the analysis and design of complex steel and composite structures. The program covers applications ranging from iconic stadiums and long-span roofs to modular integrated construction (MiC) and steel connection design. Topics include performance-based approaches to the structural design of tall buildings, the use of component-based finite element methods (CBFEM) and parametric modeling for efficient and reliable steel connection design, and advanced analysis techniques that account for initial imperfections and semi-rigid behavior. Case studies will illustrate how leading international projects integrate architectural vision with structural innovation. With expertise from academia, industry, and international practice, the seminar aims to provide participants with insights into current trends and practical strategies for addressing challenges in high-rise, long-span, and modular structures, while fostering cross-disciplinary collaboration and knowledge transfer.

About the speakers (names in alphabetical order)

Dr. Jake LY CHAN is an Associate at NIDA Technology Company Limited, a role he has held since 2022. He received his PhD from the University of Hong Kong in 2022, where he did research on nonlinear finite element analysis and semi-rigid connections. His work focuses on practical structural analysis and connection design, 3-d printing in conjunction with robotic applications.

Ir Wei LIN is an Associate Director based in Arup's Hong Kong office with over 16 years of international experience and a proven track record in leading multi-disciplinary teams for delivering complex projects including long-span structures, tall buildings, large-scale mixed-use developments, and complex architectural forms. Ir Lin has particular expertise in the efficient structural analysis and design of long-span and tall building structures and is a strong advocate for design excellence and achieving elegant solutions through collaboration, optimisation and design for constructability.

Prof. Yaopeng LIU is currently a full professor and Ph.D. supervisor at South China University of Technology. His research focuses on the direct analysis method for steel and composite structures, long-span roof structures and flexible barriers. Prof. Liu earned his Ph.D. from The Hong Kong Polytechnic University in 2009, has been a director at Nida Technology Co., Ltd. and leads the development of the NIDA software series. Prof. Liu acquires extensive practical experience in design of steel structures and he has published over 100 academic works and serves as the Associate Editor of *Advanced Steel Construction* (SCI) and *Progress in Steel Building Structures*.

Ir Michael LU is a Registered Structural and Geotechnical Engineer in Mainland China. He is also a member of the Institution of Engineers in the UK. Currently, he leads the Research and Development team at the Structures Research Hub of China Overseas Building Construction Limited.

Ir Kevin WANG is an Associate Director at Cundall Hong Kong, with extensive experience in structural engineering. He is a Chartered Engineer, a member of both the Institution of Structural Engineers (IStructE) and the Hong Kong Institution of Engineers (HKIE), and a Registered Professional Engineer (Structural) in Hong Kong. Kevin specializes in structural steel design and has played a leading role in delivering complex and technically demanding projects across Hong Kong, Macau, Mainland China, and the MENA region. His work spans a diverse portfolio of high-profile developments, often in collaboration with international architects, where he integrates architectural vision with engineering excellence.

Ir Dr. Xiaokang ZOU secured her PhD degree in Structural Engineering from the Hong Kong University of Science and Technology (2002). She is a Registered Professional Engineer (RPE) in Hong Kong, and a Fellow of the Hong Kong Institution of Engineers (HKIE). Currently, she is the Technical Director and Leader of the Structures Research Hub of China Overseas Building Construction Limited.

Mr. Steve ZUO is a registered professional engineer in US and has supervisory experience in the structural design, investigation, and review of a variety of building types, including super high-rise projects, office/commercial, residential, long-span sports/entrainment project, and hospital facilities. His extensive experience includes daily managing of all structural design aspects with architect, coordination of structural drawings with other disciplines, supervising project engineering design staff and negotiating contracts. In addition, his experience includes structural investigations of existing and proposed structures. Mr. Zuo has been in-charged of three significant high-rise completed tall towers in his career in Thornton Tomasetti.

Programme – 14th November 2025, Friday

Time	Topics	Speakers
1:40 pm	Registration	
2:00 pm	Pearl of the Orient: Engineering the Iconic Kai Tak Stadium	Ir Wei LIN
2:30 pm	Steel Connection Design by Component-Based Finite Element Method (CBFEM) — Theoretical Background & Project Applications	Dr. Jake CHAN & Prof. Yaopeng LIU
3:00 pm	The Design of Iconic Roof Structures	Mr. Steve ZUO
3:30 pm	Tea Break	
3:50 pm	Innovative Technologies for Productivity Enhancement in Batch 1A Development of Hong Kong-Shenzhen Innovation and Technology Park	Dr. Xiaokang ZOU & Ir Michael LU
4:20 pm	Parametric Modeling for Efficient Steel Connection Design	Ir Kevin WANG
4:50 pm	Q & A — Chaired by Ir Prof. Siwei LIU	
5:00 pm	End of Programme	

REGISTRATION FORM

(To be replied on or before 5th November 2025)

Please follow the 2 steps registration procedure:

1. E-mail the completed registration form to Ms. Cat Lam (Email: cat.lam@nidacse.com & c.c. man@hkisc.org & samchan@hkisc.org) 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. Cat Lam at:-
HKISC c/o Unit 209B, Photonics Centre, No. 2 Science Park East Avenue, Hong Kong Science Park, Shatin, NT.

** Registration fee can also be paid by ATM or bank in to HKISC bank account at Hang Seng Bank. Our **Hang Seng Bank** account number is **222-049918-001** and account name is "**Hong Kong Institute of Steel Construction Limited**". Please email the ATM transfer advice or deposit form to cat.lam@nidacse.com & c.c.: man@hkisc.org for record after transferred.

Seats are limited and will be provided on a first-come-first-served basis. Please send the completed registration form to **Ms. Cat Lam, Secretary of the Institute of Steel Construction** by **12:00 noon, 5th November 2025.** For more technical information, please contact Ms. Cat Lam at 3595-6150

A. Personal Details:

Title	Name in full (Block Letter)	Name of company	Tel.	E-mail address	Institution/ 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$ 700 each x	_____ person(s)	= HK$ _____
2. Regular registration (Non-member*price)	HK$ 900 each x	_____ person(s)	= HK$ _____
3. Group registration (at least **5** people)	HK$ 800 each x	_____ person(s)	= HK$ _____
		Total amount:	**HK$**

***Note**: The registration fee includes e-copy of lecture notes and CPD certificate*
**Member refers to 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 requested for certificate(s).

The Hong Kong Institution of Steel Construction Limited HKISC is a non-profit making organization certified by qualified accountant yearly and it serves to disseminate latest technology in construction.