

One-Day Technical Seminar

2nd Sino-US Forum on Steel Design Codifications

Organized by

The Hong Kong Institute of Steel Construction

Supported by

Structural Division, The Hong Kong Institution of Engineers

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

Abstract

The first forum of this series, initiated by Prof. SL Chan, Prof. GP Shu and Prof. R Ziemian, was held on June 19, 2019 at Cornell University, USA. and this second forum carries the objectives of providing a platform for researchers and professionals to discuss and share recent advancements in code development, analysis, behavior, design, and construction of structures made principally from steel, aluminum, high strength steel, cold-formed steel, stainless steel, and composite steel-concrete materials.

About the Speakers from USA

Professor Ron Ziemian serves on the American Institute of Steel Construction, American Iron and Steel Institute, and Aluminum Association Specification Committees. His research on applying advanced methods of computational analysis to better design for the stability behavior of metal structures has been recognized with several awards, including the ASCE Norman Medal, ASCE Shortridge Hardesty Award, AISC Special Achievement Award, AISC TR Higgins Award, and SSRC Lynn Beedle Award. Ron is currently Co-Editor-in-Chief of the Journal of Constructional Steel Research.

Professor Todd Helwig is an international expert on the stability aspects of bridge construction with a focus on the design and behavior of steel structures. His research has been recognized with several awards including the ASCE Collingwood Research Prize, the ASCE Moisseiff Award, and the ASCE Shortridge Hardesty Award. Professor Todd's work on stability bracing systems in steel bridges was recognized at the North American Steel Construction Conference with a Special Achievement Award. He was also recently selected as the recipient of the 2017 T. R. Higgins Lectureship Award from AISC.

About the Speakers from China

Professor Shu Ganping has been conducting research on the stability theory of steel structures for thirty years in Southeast University. He is a significant contributor to the revision of relevant design codes of steel structures in China. He served as the chief editor of the first Chinese edition of the "Technical Specification for Stainless Steel Structures" (CECS410-2015) and participated in the revision of the "Standard for Design of Steel Structures"(GB50017-2017), "General Code for Steel Structures"(GB 55006-2021), etc. He participated in many importance engineering projects such as Beijing West Railway Station and Nanjing Olympic Sports Center, and has extensive experience in engineering consulting. His research achievements have been recognized with awards including the first prize of the Science and Technology Award from the China Steel Construction Society and the first prize of the Jiangsu Province Science and Technology Progress Award.

Professor Lijun Wang obtained PhD from Tsinghua University. He is the National Engineering Survey and Design Master. He is the Editor-in-Chief of National Standard "Standard for design of steel structures" (GB50017-2017), IStructE, Deputy Chairman of the Steel Structure Professional Committee of China Engineering Construction Standardization Association, and Vice Chairman of Structure Branch of the China Survey and Design Association.

Haiqun Yu is the associate editor of National Standard “Standard for design of steel structures” (GB50017-2017), Secretary General of the Steel Structure Professional Committee of China Engineering Construction Standardization Association, former technical director of Capital Engineering & Research Incorporation Limited, Editor of “Code for fire safety of steel structures in buildings”, “Standard for general symbols used in design of engineering structures”, “Standard for general terms used in design of engineering structures”, “Specification for design of high strength steel structures” and “Code for seismic design of industrial structures”.

Professor Zhi-Xiang Yu is a doctoral supervisor and department head of the Department of Structural Engineering, Southwest Jiaotong University, and director of the Research Center for Protective Structures. He has been engaged in the research of steel structures, disaster prevention, mitigation, and protection engineering for a long time. He presided over and participated in more than 30 scientific research projects, published more than 100 academic papers, and obtained 61 invention patents. He hosted and won more than 20 awards including the first prize of the Sichuan Provincial Science and Technology Progress Award and the first prize of the China Highway Society Science and Technology Award.

Ir Professor S.L. Chan had been the Chair Professor in Computational Structural Engineering at the The Hong Kong Polytechnic University until 2022 when he retired and joined NIDA Technology and ALPHA Consultancy Limited. His research interests include the stability analysis and design of steel, composite and concrete structures, nonlinear finite element analysis, glass and slender skeletal structures, steel, rock and flood barriers, bamboo and aluminum scaffolding and pre-tensioning steel structures with more than 300 research publications. He also served as chairman of the Structural Division and Discipline of HKIE, currently a deputy chairman of Fire Division of HKIE and an adjunct professor of several leading universities in Mainland, including the Tongji University in Shanghai, Southwest Jiaotong University in Chengdu and Southeast University in Nanjing and among the list of top 2% highly cited scientists in civil engineering surveyed by Stanford University.

Dr. Siwei Liu is an assistant professor in the department of civil and environmental engineering at the Hong Kong Polytechnic University. He specializes in finite element analysis, computational structural engineering and advanced design of modern steel structures. He has received several prestigious awards for his research, including the Grand Award in Research from HKIE in 2020 and 2016, and the Commendation Award in Research from HKIE in 2018. He has also co-developed several structural analysis and design software, such as MSASect2, Mastan2 (v5.x), RCD2016 and NIDA10. His work combines academic excellence and practical relevance, and he has served as a principal member in specialist teams for leading structural consultants, government departments and contractors in Hong Kong.

Dr. Yao-Peng Liu obtained BSc. and MEng from Sun Yat-Sen University and his PhD at HK PolyU. He is currently a guest professor at Southwest Jiaotong University and Shenyang Jianzhu University in Mainland since 2018. He was involved in drafting of steel design codes in Mainland GB50017 (2017) and sits in the ad hoc committee in Hong Kong Steel Code. Dr. Liu publishes more than 100 publications in second-order direct analysis, nonlinear finite element and computational methods and acts as the principal developer of software Nida for practical analysis and design by second-order direct analysis and its theoretical development. In addition to research in steel, composite and seismic and wind engineering and position as Associate editor of the SCI-e Journal “Advanced Steel Construction” and the Journal “Progress in Steel Building Structures”, Dr. Liu acquires extensive practical experience in the design of steel structures.

Date: 1st December 2023 Friday
Time: 9:00 am – 5:00 pm
Venue: **Versailles Ballroom I, 3/F**, Regal Kowloon Hotel.
CPD: This seminar is recommended for one CPD-day.
Certificate: An attendance certificate will be issued upon request.

Please send the completed registration form to **Mr. Sam Chan, Secretary of the Institute of Steel Construction, c/o Nida Technology Limited, Unit 209B, Photonics Centre, No. 2 Science Park East Avenue, Hong Kong Science Park, Shatin, N.T., Hong Kong** by **12:00 noon, 15 November 2023**. (Fax No.: 3619 7238) or through email: samchan@hkisc.org . For more technical information, please contact Prof. S.L. Chan at 3595 6150 or ceslchan@connect.polyu.hk. Medium of presentation will be in English and summarized lecture note will be provided.

Programme (1st December 2023, Friday)

Time	Programme	Speakers
8:30 am	Registration	
9:00 am	Welcome speech	Ir Prof. SL Chan
9:05 am	Essence of stability design of steel structures 鋼結構穩定性設計的本質	Prof. Lijun Wang
9:45 am	Recent Work in Evaluating the U.S. Practice of Offering Two Design Bases, LRFD and ASD	Prof. Ziemian
10:25 am	Q & A	
10:35 am	Tea Break	
10:50 am	Recent Research Development in Direct Analysis Method for Stability Design of Modern Steel Structures with Irregular Cross-sections	Dr. SW Liu
11:30 am	Advancements in stainless steel structures research and amendment of CECS 410	Prof. GP Shu
12:10 pm	Q & A	
12:30 pm	Lunch at Regal Kowloon hotel provided by organizer	
14:00 pm	Recent Changes to AASHTO and AISC Design Specifications Related to Bracing and Lateral-Torsional Buckling	Prof. Todd A. Helwig
14:40 pm	Recent development of design codes and new standard system in China	Ms. Haiqun Yu
15:20 pm	Q & A	
15:30 pm	Tea Break	
15:40 pm	Research and design specification on buffering energy dissipation technology in high-performance steel structure for flexible tunnel shed 高性能鋼結構柔性棚洞緩衝耗能技術及規範編制	Prof. ZX Yu
16:20 pm	Direct analysis allowing for finite joint stiffness	Dr. YP Liu
17:00 pm	Q & A	
17:30 pm	End	

REGISTRATION FORM

(To be replied on or before 15th November 2023)

Please follow the 2 steps registration procedure:

1. Fax or email the completed registration form to Mr. Sam Chan (Email: samchan@hkisc.org, Fax: 852-3619 7238) for preliminary registration.
2. Post the completed registration form together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to Mr. Sam Chan, at:
HKISC c/o Nida Technology Limited, Unit 209B, Photonics Centre, No. 2 Science Park East Avenue, Hong Kong Science Park, Shatin, N.T., Hong Kong
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 samchan@hkisc.org for record after transferred.

To: Mr. Sam Chan

Fax: 852- 3619 7238

- Only face-to-face mode is offered with limited seats and will be provided as first-come-first-served basis. Organiser reserves right to change all attendants to "on-line mode only" in event of health or other contingency requirements.
- Link for On-line mode will be sent to applicants before seminar date upon successful registrations.
- CPD certificates will be delivered with indication on mode of attendance and other information related to the course.

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\$ 1,750 each x	_____ person(s)	= HK\$ _____
2. Regular registration (Non-member*price)	HK\$ 1,850 each x	_____ person(s)	= HK\$ _____
3. Group registration (at least <u>5</u> people)	HK\$ 1,750 each x	_____ person(s)	= HK\$ _____
Total amount:			HK\$

Note: The registration fee includes lecture notes, CPD certificate, lunch and two tea breaks

*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 serves to disseminate latest technology in construction.