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**Research Institute of Standards and Norms of State Ministry of Housing and Urban-Rural Development Seminar on “A comparative study on steel codes among Chinese and overseas construction industry for technical compatibility and alignment”
2025.10.31**

A high-level seminar entitled “*A comparative study on steel codes among Chinese and overseas construction industry for technical compatibility and alignment*” under **Research Institute of Standards and Norms of State Ministry of Housing and Urban-Rural Development, P. R. China** was successfully held on 31 October 2025.

As one of the most important themes of the “International Exchange Week on Technical Standards for Housing and Urban-Rural Development” series, a high-level seminar entitled “*A comparative study on steel codes among Chinese and overseas construction industry for technical compatibility and alignment*” was successfully held in Shenzhen on 31 October 2025. This seminar was organized by **Research Institute of Standards and Norms of State Ministry of Housing and Urban-Rural Development, P. R. China**. It is the outcome of a high-level research and development project under the general research theme of “Fundamental research for construction standardization 2024” of the Institute. The project is administrated by China Construction Metal Structure Association. The principal investigators of the project are:

- **Prof. Y.J. Shi**, Tsinghua University – Lead Investigator
- **Prof. X.Y. Sun**, China Constructional Metal Structure Association
- **Prof. K.F. Chung**, The Hong Kong Polytechnic University
- **Prof. Z.M. Chen**, China Construction Science and Industry Corporation Ltd.



The seminar was co-chaired by Prof. X.Y. Sun, Deputy Secretary-General of China Construction Metal Structure Association and Chairperson of its Steel Structure Division, and Prof. Y.L. Guo, Tsinghua University.



Ms. Xiaoyan SUN
Prof. of CCMSA



Prof. Yanlin GUO
Tsinghua University

The seminar was officiated by

- **President Qi QU** China Construction Metal Structure Association
- **Director Bo CHEN** Research Institute of Standards and Norms
State Ministry of Housing and Urban-Rural Development
- **Head Surong FAN** Standard Quota Department
State Ministry of Housing and Urban-Rural Development



Mr. Qi QU
President of CCMSA



Mr. Bo CHEN
Director of RISN, MHURD

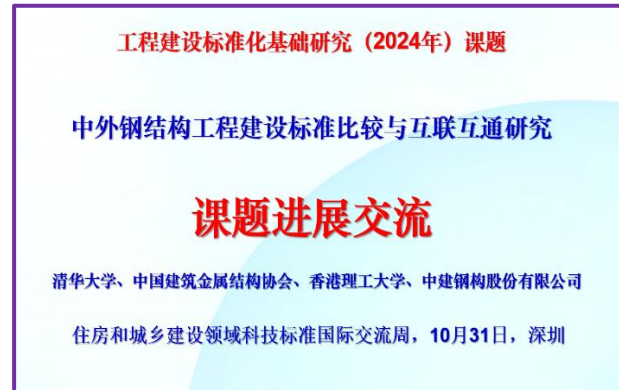


Ms. Surong FAN
Head of SQD, MHURD

During the seminar, Prof. Y.J. SHI, Principal Investigator, made a detailed and in-depth report involving research background and objectives, main development and achievements, and also on-going research work.



Prof. Y.J. Shi
Tsinghua University



After the seminar, Prof. K.F. CHUNG, the Co-Principal Investigator, provided additional information on the following issues:

1. Design values of the yield strengths of Chinese steel, and corresponding material partial safety factors;
2. Mobilization of full cross-sectional moment resistances in steel beams according to plastic design, leading to an increased efficiency in these beams;
3. Group Standard: “*Standard for design of steel structures using S690 and S960 steel to EN 1993-1*” is written in accordance with the EN format to allow foreign engineers to better understand Chinese design documents; and
4. Adoption of performance-based design for seismic resistant structures allows effective use of S690 and S960 high strength steel.



- **Research motivation and methodology**

This project aims to review and compare the relevant standards on steel design and construction in China, the United States and Europe, and also to assess their technical differences. It is important to propose improvements to Chinese standards to facilitate export of Chinese steel materials and products.

Major tasks:

1. To establish a system for structural steel standards appropriate for various "Belt and Road" countries, i.e. internationalized Chinese standards.
2. To develop technical guidelines and application documents for these Chinese standards.
3. To formulate technical promotion for a wide adoption of these Chinese standards.

- **Main achievements**

1. Thorough review on technical standards for steel structures among China, the United States and Europe.
2. Literature review, enterprise visits and surveys, small-scale discussions.
3. Corporation and industry surveys.
4. Comparative analysis of standards among China, the United States, and Europe.
5. Preliminary proposals for the technical compatibility and alignment among Chinese and overseas steel codes

- **Follow-up work**

1. Comparative analysis of standards for seismic design of steel structures.
2. Comparative analysis of standards for fabrication and installation of steel structures.
3. Proposals for technical compatibility and alignment among Chinese and overseas standards for design of steel structures.
4. Suggestions for updating and revising Chinese standards for design of steel structures.

Research Institute of Standards and Norms of Ministry of Housing and Urban-Rural Development, P. R. China

住房和城乡建设部标准定额研究所于 1983 年经原国家科委批准成立，为国家公益一类科研事业单位，主要承担全国工程建设标准定额的研究和具体组织编制与管理的工作，是国内唯一一家既从事工程技术标准，又从事工程经济指标研究的国家级科研单位。标准定额研究所自成立以来，工作重点一直是标准、定额及方法参数的技术管理、政策研究、重点项目编制及技术咨询服务等。

Project of Fundamental Research on Standardization of Engineering Construction (2024)

工程建设标准化基础研究项目是 2023 年首次设立的以开展工程建设标准化基础研究为主要内容的研究项目，旨在贯彻落实习近平总书记关于加强基础研究的重要指示批示精神，推动标准化与科技创新互动发展。工程建设标准化是提升工程质量、保障安全、提高效率的重要手段。随着技术进步和市场需求的变化，标准化工作需不断更新和完善，以适应新形势。项目目标为完善标准体系、提升标准质量、促进技术创新、加强国际对接。工程建设标准化基础研究对提升行业水平、推动技术进步、增强国际竞争力具有重要意义。通过系统研究，将为工程建设标准化提供科学依据和实践指导。

China Construction Metal Structure Association

中国建筑金属结构协会成立于 1981 年，是由从事建筑金属结构行业的企业、科研机构、设计单位及相关专业人士自愿组成的全国性、行业性、非营利性社会组织。协会的宗旨是推动建筑金属结构行业的技术进步、质量提升和可持续发展，促进行业内的交流与合作，维护会员的合法权益，为政府决策提供支持。其主要职能包括：行业服务、标准制定、技术交流、政策建议和国际合作。协会的行业管理部门为国家住房和城乡建设部，协会下设 25 个分支机构，负责不同领域的行业管理、技术推广、标准制定、培训交流等工作。中国建筑金属结构协会在推动中国建筑金属结构行业的技术进步和规范化发展、标准化建设和国际交流方面发挥了重要作用。