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Visit to China Construction Steel Structure Corp. Ltd. , Shenzhen, China
2017.08.14

CNERC paid an official visit to the Headquarter of China Construction Steel Structure Corp. Ltd. (CCSSC) in Shenzhen for technical exchange and meeting. The CNERC delegation team consisted of:

- Ir Prof. K.F. Chung — Director of CNERC
- Ir Prof. C.H. Yam — Deputy Director and Secretary General of CNERC
- Dr. H.C. Ho — Deputy Secretary General of CNERC
- Dr. T.M. Chan — Deputy Secretary General of CNERC
- Ir W.H. Wu — Senior Research Fellow of CNERC
- Mr. Y.K. Pang — General Secretary of HKCMSA

During the visit, the CNERC visited the following CCSSC delegates:

- Prof. H. Wang — Chairman
- Ir Lixian Dai — Chief Engineer
- Dr. Lei Gu — Dean of Faculty of Design
- Mr. Zhenming Chen — Genreal Manager of Technology Department
- Mr. Renge Li — Executive President, Research Institute of CCSSC Steel
- Dr. Honyu Shen — Executive General Manager, Overseas Division
- Mr. Lifeng Zhang — Executive Director of the State Steel Museum

The visit was successful that the CNERC shared the current scientific research and engineering applications with the CCSSC so that the CCSSC understood the core mission and direction of the CNERC. At the same time, the CNERC know the strong professional team and numerous successful steel construction projects of the CCSSC, as well as the opportunities and challenges of the "one-belt-one-road" strategic development, and the latest development of green building and intelligent city. At the end, both parties reached a consensus on collaboration and set a number of collaborative agenda.

The CNERC visited the Headquarter of the CCSSC

On 14 August 2017, the CNERC delegation team visited the Headquarter of CCSSC, and warmly welcomed by the CCSSC.

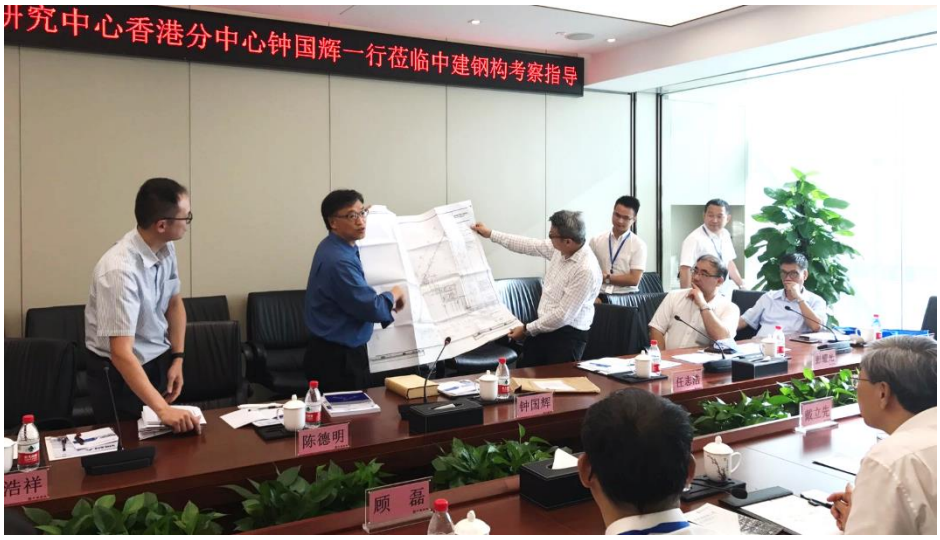
Meeting between the CNERC and the CCSSC.

The CNERC and the CCSSC had a technical exchange meeting, and reported the recent development and challenges of both parties. The following collaborative agenda was set on "one-belt-one-road" strategic development and internationalization of the CCSSC:

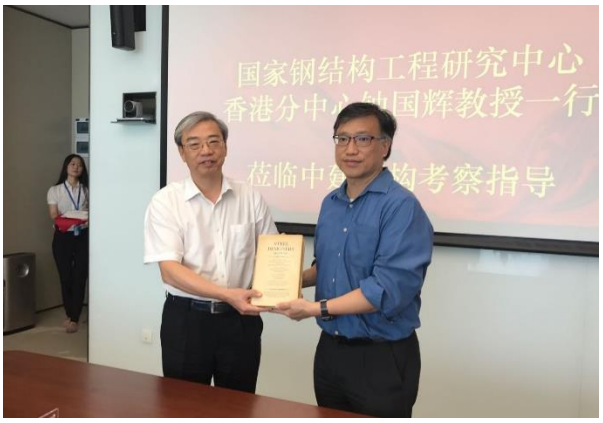
1. The CNERC and the CCSSC would jointly develop the online information platform to showcase the advanced engineering technologies of steel construction in Hong Kong and China's iconic steel infrastructures as reference for the engineers;

2. To conduct Technical Seminars on “Effective Design and Construction to Structural Eurocodes” as technical training to the CCSSC personnel;

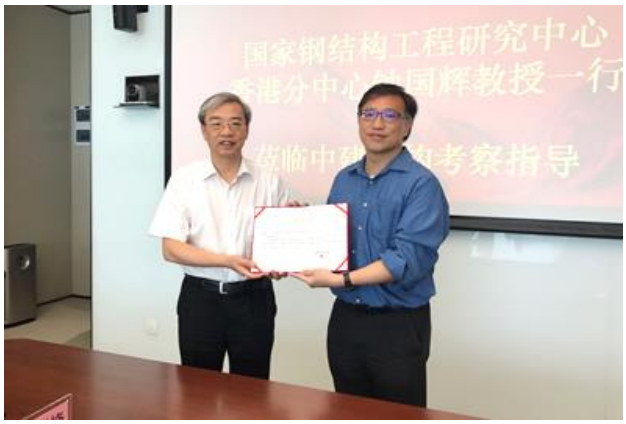
3. To strengthen technical exchange between professionals of Hong Kong and Shenzhen, and provide technical training to technical personnel and undergraduate students.



Prof. K.F. Chung and Prof. C.H. Yam explained the main structure of the BOC Building in Hong Kong, and presented the manuscript as an exhibit to the Steel Museum.



Prof. K.F. Chung presented the 1st edition of "Steel Designers' Manual" to Prof. H. Wang.



Prof. H. Wang presented a token of appreciation to Prof. K.F. Chung.

After the technical exchange meeting, the CCSSC warmly welcomed the CNERC delegates by hosting a dinner banquet at the 38th floor of the headquarters building. During the dinner, both parties continued the vigorous discussion on the opportunities of "one-belt-one-road" initiatives. Also, the CNERC upcoming technical publications were introduced:

- The second edition of "Effective Design and Construction to Structural Eurocodes"
- "Hong Kong High-rise Residential Building Design and Construction Manual"

Visit of Steel Museum

The CCSSC has established the first State Steel Museum. The Steel Museum is located in the Nanshan Houhai central district, adjacent to many of the world's top 500 corporate headquarters. The Steel Museum exhibits a brief history of the world's iron and steel metallurgical development, and explains in detail the development of the steel industry after the industrial revolution in the 19th Century. The museum focuses on the history and technology of steel exhibits, and displays physical exhibits, models, photos, texts and multimedia, etc.; combines collection, exhibition, research, education, and communication in one; and connects science, academic, interest, and participation together, so to let the visitors understand the development of the world steel structures. The permanent exhibitions of the museum are located in the 2nd level of the basement, and divided into 5 sections: prelude, steel structure history, steel structure technology, interactive area and 3D theater, which are open to the public and free of admission.

The State Steel Museum.

The CNERC delegation team visited the Steel Museum.

The CNERC delegation team visited the CCSSC Exhibition Hall.

Mr. L.F. Zhang, Museum Curator briefed the CNERC delegates on the newly completed iconic projects of the CCSSC.

Background of CCSSC

The CCSSC is the largest corporation in the Chinese steel industry and National high-tech enterprises under the World's 500 China Construction Co., Ltd. The CCSSC focuses its business on steel structures, to provide customers with "investment + construction + operation" all-in-one solution. Moreover, the CCSSC holds the contracting qualifications of general construction, steel structure engineering, engineering design for construction industry, China 's steel structure manufacturing enterprises, design and construction of metal house (wall), and also passed the ISO9001, ISO14001, OHSAS18001, ISO3834, EN1090, AISC and other international certifications.

The branches of CCSSC are all over the mainland China, distributed across the country in five regions. The CCSSC has a modern steel fabricating base, which can produce over 1.2 million tons of steel every year, ranking first in the industry. It executes the "one-belt-one road" strategy, enters international markets of Hong Kong, Macau, Southeast Asia, South Asia, North Africa, Australia, the Americas and others; aligning to the structural reform of the supply side of the country, and collaborates with many government agencies, large investors, key steel fabricators, tertiary institutions, scientific research institutions, financial institutions, and others as strategic partners. The core business of CCSSC is high-end housing construction and infrastructure projects, and through contracting the professional steel structures, EPC, PPP and other models, the CCSSC has built a large number of sophisticated, tight-scheduled and iconic constructions both domestically and abroad. In which, the following "soonest", "highest", "biggest", and "fastest" domestic steel construction works were accomplished:

- 1985 Shenzhen Development Center, the first ultra-high-rise steel building
- 1997 Shanghai World Financial Center, the world's tallest building
- 2004 China Central Television new site main building, the world's largest steel structure office building and China's largest single steel structure
- 2006 Zhongyuan Tower, the world's tallest steel structure
- 2008 Tianjin Goldin Finance 117 Tower, Chinese built first high-rise structure at present

Apart from high-rise buildings, the CCSSC has also built a series of transportation ports with iconic infrastructures: Shenzhen Airport T3 terminal and Wuhan Railway Station; a series of Convention Centres with iconic infrastructures: Shenzhen Bay Sports Center and Shenzhen Convention and Exhibition Center; a series of cultural facilities with iconic infrastructures: Chinese film Museum and Shenzhen Cultural Center; a series of road and bridge engineering with iconic infrastructures: Chongqing Jiangjin Dingshan Yangtze River Bridge and the six bridges of Wuhan Jianghan; a series of power engineering with iconic infrastructures: Taishan Nuclear Power Station and Lingao nuclear power plant; a series of overseas works with iconic infrastructures: Hong Kong's first high-rise building – International Commerce Centre, the largest airport in the Middle East – Abu Dhabi International Airport, and the world's third largest mosque – Great Mosque of Algiers.

The CCSSC persists to pursue technological advancement, it has established high-level research institute and design institute, and formed a comprehensive R&D design system. As of the day, the CCSSC has received 7 State Science and Technology Prizes, 13 Tien-yow Jeme Civil Engineering Prizes, 450 national patents (including 60 invention patents), 15 national engineering ordiances, 69 construction technology certifications by the authority of international leader or reaching international advanced level. Being editor or co-editor of 23 national standards and industry standards. Also, received a total of 27 Luban Awards in engineering projects, 15 National Quality Engineering Awards, 104 Gold Awards of China's Construction Engineering Steel Structure, and 112 National Excellent Welding Awards.