

# International Conference on Engineering Research and Practice for Steel Construction 2018

5 to 7 September 2018, Hong Kong



## E-Proceedings

---

**The Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch)**, or the CNERC, was approved by the State Ministry of Science and Technology, People's Republic of China on 12<sup>th</sup> October 2015 established at PolyU. The CNERC is dedicated to promote technological developments of the Hong Kong Construction Industry, to enhance its sustainable infrastructure developments, and to promote internationalization of its professional services.

The CNERC receives strong support from the Development Bureau of the Government of Hong Kong SAR and also from the Construction Industry Council. It is dedicated to promote technological developments and internationalization of both the Hong Kong Construction Industry and the Chinese Steel Construction Industry. The primary objectives of the CNERC are:

- To establish a high level technological platform to promote effective design and construction of modern building and civil engineering structures as well as sustainable infrastructure development in Hong Kong.
- To advance technological capabilities of the Hong Kong Construction Industry in design and construction of super high-rise buildings, long-span bridges and buildings of large enclosure using high performance materials in Hong Kong as well as in overseas.

The CNERC is keen to promote engineering research and application of modern steel construction technology, and it is actively engaged with international as well as national exchanges in innovative technology, design and construction of steel structures.

The CNERC receives HK\$5 million per year from the Innovation and Technology Commission of the Government of Hong Kong SAR while the Hong Kong Polytechnic University also provides a 1:1 matching fund. Thus, the CNERC has a research and operational funding at HK\$10 million per year to conduct research and development activities.

For further details of the CNERC, please browse through the homepage of the CNERC via the following link:

<https://www.polyu.edu.hk/cnerc-steel/>

# Contents



Foreword	2
Conference Organising Committee	3
International Scientific Committee	4
List of keynote papers	6
List of papers	7

# Foreword

Strategically located at the gateway of China to the world, Hong Kong is well known as the *International Financial Centre in Asia* for many years, with its international trading volumes next to New York and London. Owing to its well established and proven professional communities in many disciplines, Hong Kong is also the *International Design Centre for Infrastructure Development*, having hundreds of international companies and tens of thousands of professionals in capital financing, infrastructure planning, project management, architectural design, engineering design and construction, surveying, supply of building products and systems as well as quality control and accredited laboratories, etc..

The Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch) was approved by the **State Ministry of Science and Technology, People's Republic of China** on 12th October 2015 established at PolyU. Through applied engineering research on steel construction, the CNERC aims to enhance socio-economic development through technological advancement in sustainable infrastructure development. The CNERC receives strong support from the **Development Bureau of the Government of Hong Kong SAR** and also from the **Construction Industry Council**. The CNERC is dedicated to promote technological developments and internationalization of both the Hong Kong Construction Industry and the Chinese Steel Construction Industry. It is actively engaged with international as well as national exchanges in research and development of steel construction.

On behalf of the Conference Organising Committee, I am delighted to welcome you to the ***International Conference on Engineering Research and Practice for Steel Construction 2018*** in Hong Kong. In the next three days, the Conference will become a technical platform for effective exchange on modern steel construction technology among all delegates, researchers and engineers. A total of 10 world renowned researchers and engineers will present their recent research works and construction projects during their keynote lectures. Moreover, a total of 20 sessions including 13 special sessions with over 100 technical papers will be presented by delegates from 15 countries.

The success of this Conference depends very much on many people who have worked with us in planning and organising the technical programme, in particular, keynote lectures and special sessions. Let us thank all those who have rendered support to this Conference.

With the unfailing support from many senior researchers and engineers in the international research community of structural engineering and steel construction, I wish all the delegates an insightful experience in the next three days that will enlighten you in the pursuit of research excellence in the years ahead. I also very much hope that all of us will continue to excel and contribute to the well-beings of our society.



Ir Prof. K. F. Chung  
*Chairman*  
**Conference Organising Committee**  
***International Conference on Engineering Research and Practice  
for Steel Construction 2018***

# Conference Organising Committee



## Chairman

**Ir Prof. K. F. Chung**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

## Members

**Ir Prof. Michael C. H. Yam**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

**Ir Joseph Y. W. Mak**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

**Dr. T. M. Chan**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

**Dr. H. C. Ho**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

**Dr. Ivan W. H. Lau**

Chinese National Engineering Research Centre for Steel Construction (Hong Kong Branch),  
The Hong Kong Polytechnic University

**Prof. C. M. Chan**

The Hong Kong University of Science and Technology

**Dr. Paul H. F. Lam**

The City University of Hong Kong

**Ir Prof. Ben Young**

The University of Hong Kong

# International Scientific Committee



Prof. E. Batista	Federal University of Rio de Janeiro	Brazil
Prof. F. S. K. Bijlaard	Delft University of Technology	Netherlands
Dr. R. BJORHOVDE	The BJORHOVDE Group	U.S.A.
Prof. N. Boissonnade	Laval University	Canada
Prof. D. Camotim	University of Lisbon	Portugal
Prof. T. H. Chan	Queensland University of Technology	Australia
Prof. S. L. Chan	Hong Kong Polytechnic University	Hong Kong
Prof. Y. Y. Chen	Tongji University	China
Prof. S. P. Chiew	Singapore Institute of Technology	Singapore
Prof. Y. S. Choo	National University of Singapore	Singapore
Dr. G. Couchman	The Steel Construction Institute	United Kingdom
Prof. D. Dubina	Polytechnic University of Timisoara	Romania
Prof. M. Dundu	University of Johannesburg	South Africa
Prof. A. Y. Elghazouli	Imperial College London	United Kingdom
Prof. Y. Fujino	Yokohama National University	Japan
Prof. L. Gardner	Imperial College London	United Kingdom
Prof. L. H. Han	Tsinghua University	China
Prof. H. Hao	Curtin University	Australia
Prof. S. Herion	Karlsruher Institut für Technologie	Germany
Dr. J. C. M. Ho	University of Queensland	Australia
Prof. S. Kitipornchai	University of Queensland	Australia
Prof. N. T. K. Lam	University of Melbourne	Australia
Prof. D. Lam	University of Bradford	United Kingdom
Prof. H. H. Lau	Curtin University	Malaysia
Prof. L. J. Leu	National Taiwan University	Taiwan
Prof. G. Q. Li	Tongji University	China
Dr. J. B. P. Lim	University of Auckland	New Zealand
Prof. J. Y. R. Liew	National University of Singapore	Singapore
Prof. G. Leoni	Università di Camerino	Italy
Prof. Y. Lu	University of Edinburgh	United Kingdom
Prof. M. Mahendran	Queensland University of Technology	Australia
Prof. F. Mazzolani	University of Naples Federico II	Italy
Prof. E. Mirambell	University Politècnica de Catalunya	Spain
Ir Hussain Naeem	ARUP	Hong Kong
Prof. D. A. Nethercot	Imperial College London	United Kingdom
Prof. G. Ranzi	University of Sydney	Australia

# International Scientific Committee



Dr. S. H. R. Sham	AECOM	Hong Kong
Prof. Y. J. Shi	Tsinghua University	China
Prof. N. Silvestre	University of Lisbon	Portugal
Prof. L. Simões da Silva	University of Coimbra	Portugal
Prof. Richard Stroetmann	Technische Universität Dresden	Germany
Prof. K. H. Tan	Nanyang Technological University	Singapore
Prof. L. H. Teh	University of Wollongong	Australia
Prof. J. G. Teng	Hong Kong Polytechnic University	Hong Kong
Dr. H. H. Tsang	Swinburne University of Technology	Australia
Dr. V. Ungureanu	Polytechnic University of Timisoara	Romania
Prof. B. Uy	University of Sydney	Australia
Prof. P. Vellasco	Universidade do Estado do Rio de Janeiro	Brazil
Prof. Y. Wang	University of Manchester	United Kingdom
Prof. Y. L. Xu	Hong Kong Polytechnic University	Hong Kong
Prof. F. Wald	Czech Technical University in Prague	Czech Republic
Prof. E. Yamaguchi	Kyushu Institute of Technology	Japan
Prof. Y. B. Yang	National Taiwan University	Taiwan
Prof. B. Young	University of Hong Kong	Hong Kong
Prof. R. Zandonini	Università degli Studi di Trento	Italy
Prof. X. L. Zhao	Monash University	Australia
Prof. R. D. Ziemian	Bucknell University	U.S.A.
Prof. A. Zingoni	University of Cape Town	South Africa

# List of keynote papers



---

[Understanding and designing to resist the progressive collapse of steel frame buildings](#)

*D. A. Nethercot*

[Technological developments of steel bridges and their structural monitoring in Japan – a review](#)

*Y. Fujino and D. M. Siringoringo*

[Design of high strength steel reinforced concrete columns](#)

*S. P. Chiew and Y. Q. Cai*

[Fire safety of large space steel buildings](#)

*G. Q. Li, Q. Xu, J. Han, C. Zhang, G. B. Lou, S. C. Jiang and J. Jiang*

[Behaviour and design of concrete-filled stainless steel tubular columns](#)

*L. H. Han, C. Y. Xu and Z. Tao*

[Inelastic seismic demands in steel framed structures](#)

*A. Y. Elghazouli*

[Mechanical properties and a new design approach for welded joints at high strength steels](#)

*R. Stroetmann, T. Kästner, A. Hälsig and P. Mayr*

[FRP composites in steel structures](#)

*D. Fernando, S. Kitipornchai and H. Zhou*

[A seismic resilience and scour tolerant long river crossing](#)

*S. H. R. Sham*

[Prefabricated prefinished volumetric construction of high-rise buildings](#)

*J. Y. R. Liew*



# List of papers



## **Session 1A – Effective Use of High Strength Steel on Construction I**

---

### Investigation into structural behaviour of high strength S690 steels and their welded sections

*K. F. Chung, H. C. Ho, D. A. Nethercot, X. Liu, K. Wang, Y. F. Hu and T. Y. Ma*

### Effects of welding onto mechanical properties of S690 steels

*K. F. Chung, H. C. Ho, X. Liu, M. X. Huang, G. D. Wang, Z. H. Tin and D. A. Nethercot*

### Mechanical responses of high strength S690 steels under low cycle high strain cyclic deformations

*H. C. Ho, X. Liu, K. F. Chung, A. Y. Elghazouli and M. Xiao*

### True stress-strain characteristics of high strength S690 steels

*H. C. Ho, K. F. Chung, M. Xiao, M. C. H. Yam and D. A. Nethercot*

### Preliminary tests on block shear failure of bolted high strength steel angles

*B. H. Jiang, M. C. H. Yam, A. C. C. Lam, C. Fang and K. F. Chung*

## **Session 1B – Concrete Materials and Structures**

---

### Experimental evaluation of bond behaviour of reinforcing bar in plain and fibre reinforced concrete

*S. H. Chu, P. L. Ng and A. K. H. Kwan*

### Redesigning the test method for assessing the bond behaviour of reinforcing bar in concrete

*S. H. Chu, A. K. H. Kwan and P. L. Ng*

### Onset of splitting cracks in confined concrete

*J. C. M. Ho*

### Rheology of cement powder paste with fillers

*J. C. M. Ho*

### Experimental study of thin-walled concrete filled steel tube columns strengthened by steel jackets

*M. H. Lai, J. C. M. Ho and J. Liu*

# List of papers



## **Session 2A – Effective Use of High Strength Steel on Construction II**

---

### [Design of cold-formed high strength steel square hollow section columns](#)

*H. Fang and T. M. Chan*

### [Energy factor of high strength steel moment resisting frames equipped with energy dissipation bays under multiple near-fault earthquakes](#)

*K. Ke, H.Y. Zhang, M. C. H. Yam and M. F. Wang*

### [Numerical investigation into net-section resistances of high strength steel bolted connections](#)

*X. M. Lin, M. C. H. Yam, K. F. Chung and A. C. C. Lam*

### [Analytical behaviour of carbon steel-concrete-stainless steel double-skin tubes under combined compression and pressure](#)

*F. C. Wang, H. Y. Zhao and Q. W. Han*

### [Fracture prediction of SHS braces subjected to extremely low cycle fatigue](#)

*F. Xu and T. M. Chan*

## **Session 2B – Concrete-filled High Strength Steel Structures**

---

### [Experimental investigation into concrete-filled high strength steel RHS & SHS columns](#)

*M. N. Su, B. Young and X. R. Chen*

### [Tensile behaviour of concrete-filled high strength steel tubes](#)

*J. Chen, W. Xue, J. Wang and W. L. Jin*

### [Behaviour and design of concrete-filled cold-formed high strength steel circular hollow section beams](#)

*Y. Q. Deng and B. Young*

### [Monotonic behaviour of blind-bolted angle connections to concrete filled steel tubular columns](#)

*L. J. Kang, Y. Z. Liu and F. Q. Yan*

### [Behaviour of axially and eccentrically loaded concrete-filled elliptical steel tubular columns with varying aspect ratios](#)

*F. Q. Liu, H. Yang and T. M. Chan*

# List of papers



## **Session 3A – Analysis and Design I**

---

[Comparison of design loads for cold-formed steel and reinforced concrete mid-rise structures](#)

*N. Franklin, E. Heffernan and T. McCarthy*

[Calibration of partial resistance factors for cold-formed steel in South Africa](#)

*J. Mahachi*

[Shrinkage behaviour of composite steel-concrete floors using a hygro-thermo-chemical-mechanical model](#)

*M. Bocciarelli and G. Ranzi*

[Experimental studies of cold-formed steel framings at elevated temperature](#)

*P. M. Yong and H. H. Lau*

## **Session 3B – Cold Formed Steel Structures I**

---

[Wind load optimised strap braced cold-formed steel shear panels](#)

*A. Ahmed, L. H. Teh and R. A. Bhuiyan*

[Strength of eccentric axially loaded cold-formed U-shaped columns](#)

*E. A. Amoush*

[Experimental and numerical investigations into cold-formed steel beams assembled by resistance spot welding](#)

*V. Ungureanu, I. Both, M. Burca, A. Crisan and M. Grosan*

[Compression tests on back-to-back gapped built-up cold-formed steel channel sections](#)

*K. Roy, T. C. H. Ting, H. H. Lau and J. B. P. Lim*

# List of papers



## **Session 3C – Steel Structures**

---

### [Direct analysis for high strength steel structures](#)

*S. L. Chan, S. W. Liu and Y. P. Liu*

### [Experimental and numerical investigations into cold-formed steel beams assembled by MIG brazing](#)

*I. Both, V. Ungureanu, Daniel Tunea, Andrei Crisan and M. Grosan*

### [New interaction formulae for sensitive structures to second order effects](#)

*A. Khelil, C. Mercier, F. Al Mahmoud and A. Pamies*

### [Design methods for metallic beams strengthened with low modulus carbon fiber reinforced polymers](#)

*S. Selvaraj and M. Madhavan*

## **Session 4A – Metallic Steel Structures**

---

### [An innovative high performance steel product for structural engineering: Bi-metallic steel](#)

*H. Y. Ban and Y. J. Shi*

### [Material tests of stainless–clad steel under post-fire condition](#)

*R. S. Bai, H. Y. Ban and Y. Bai*

### [Corrosion tests of stainless–clad steel plates](#)

*K. H. Yang, G. H. Zhou and H. Y. Ban*

### [Numerical analyses on overall buckling behaviour of stainless–clad steel columns](#)

*P. Y. Zhao, H. Y. Ban, X. Y. Tao and Y. J. Shi*

### [Cyclic tests of stainless–clad steel plates](#)

*J. C. Zhu, H. Y. Ban, G. Shi and Y. Zhang*

# List of papers



## **Session 4B - Steel and Composite Structures I**

---

### Compression behaviour of innovative steel tubes confined concrete-filled steel tubes

*S. M. Zhang, J. Chen, W. Lu and L. H. Guo*

### Nominal flexural resistances in positive bending for composite I-girder sections using high strength steel with strain hardening

*D. H. Choi and J. H. Lim*

### Effect of steel joints on frame behaviour in fire

*R. X. Shi, S. S. Huang and B. Davison*

### Behaviour of gout-filled pipe splices connectors in high temperatures

*X. Y. Mao, G. Q. Wang, Z. Zhang and F. Tang*

### Damage evaluation on circular steel tubes confined reinforced concrete columns after fire

*H. Yang, S. M. Zhang and D. D. Yang*

## **Session 5A – Cold-formed Steel Structures**

---

### Post-fire behaviour of cold-formed high strength steel tubular X-joints subjected to ISO – 834 standard fire

*M. Pandey and B. Young*

### Flexural behaviour of cold-formed dodecagonal section double skin concrete-filled steel tubes

*J. Chen, J. Wang, F. Xie and W. L. Jin*

### Effects of bolt hole clearance on sway deflections of cold-formed steel portal frames

*A. M. Wrzesien, P. Pouladi, J. B. P. Lim, M. Grimes, B. M. Broderick and D. P. Mccrum*

### Finite element analysis of eave joints with single channel-sections in cold-formed steel portal frames

*P. Pouladi, J. Ronaldson, G. C. Clifton, J. M. Ingham, A. M. Wrzesien and J. B. P. Lim*

### Numerical simulation for residual stresses in cold-formed steel hollow sections

*Y. Yao, W. M. Quach and B. Young*

### Post-fire behaviour of cold-formed steel stub columns with longitudinal stiffeners

*J. H. Zhang and Z. J. Ge*

# List of papers



## **Session 5B – New Process and Forming Effects on Cold-formed Steel Members**

---

[Study on the effect of different roll forming processes on material properties of square rectangular tubes](#)

*F. Han, Y. Song, T. Zhang, Q. Li and Y. Wang*

[Study on the process and application of roll-formed steel in construction](#)

*J.G. Ruan, Z.J. Sheng and Y. Zhang*

[Influence research of hot-dip galvanizing process on temperature fields of steel components](#)

*Y. Q. Wang, L. Xin and Y. Zhang*

[Wind uplift performance assessment of metal roof system](#)

*K. F. Chung, S. T. Huang and H. Jiang*

## **Session 5C – Composite Structures**

---

[Nonlinear construction stage analysis accounting for constructional displacements](#)

*T. M. T. Nguyen, T. H. T. Chan and C. K. Iu*

[The rising symbol of Western China - Raffles City Chongqing](#)

*P. Cheung*

[Design engineering and construction of a ‘horizontal skyscraper’](#)

*A. J. Wang*

[Numerical study on the load bearing capacity of a steel U-section beam used as a formwork in construction stage](#)

*M. Turetta, A. Khelil, C. Odenbreit and P.O. Martin*

[Towards a rational design of composite-deck slabs subject to fatigue loads](#)

*J. Mahachi*

# List of papers



## **Session 6A – Analysis and Design II**

---

[Structural damage detection of a roof truss utilizing measured vibration data following the Bayesian model updating method](#)

*H. F. Lam, J. H. Yang and W. C. Ang*

[Continuum analogy analysis for plate-cone reticulated shells](#)

*X. Wang and Y. Wang*

[A Bayesian system identification method in time domain with applications for probabilistic response prediction of steel towers](#)

*J. H. Yang*

[A state of the art seismic resistant braced frames with innovative dissipative pin connections – New Zealand](#)

*I. Prionas, M. P. Casey and J. C. F. LEE*

## **Session 6B – Cold Formed Steel Structures II**

---

[Experimental investigation into cold-formed steel roof trusses](#)

*H. H. Lau and K. Y. Kok*

[Design approach for steel channels retrofitted with cold formed steel](#)

*G. S. Chobe, S. Selvaraj and M. Madhavan*

[Effects of screw spacings into the behaviour of back-to-back cold-formed duplex stainless steel built-up channel sections under compression](#)

*K. Roy, T. C. H. Ting, H. H. Lau and J. B. P. Lim*

[Structural tests on high strength S690 steel CHS T-joints subjected to in-plane bending](#)

*Y. F. Hu and K. F. Chung*

# List of papers



## **Session 6C – Connections and Fire Engineering**

---

[Effects of different types of aggregates on the fire resistance of concrete-filled steel tubular columns](#)

*X. Yu, Z. Tao, S. H. Wang and E. L. Tan*

[The Whitmore section check and its implications](#)

*M. D. Elliott and L. H. Teh*

[Experimental investigation into in-fire and after-fire mechanical properties of A4-80 stainless steel bolts](#)

*Z. Lu, Y. Hu, S. L. Tang and G. Adomako Kumi*

[Finite element pre-study of a beam-column bolted connection with an inclined end plate](#)

*R. Yan, H. Xin and M. Veljkovic*

[Application of steel structural fire engineering in China](#)

*Y. C. Zhao, H. X. Yu, Y. Wong and K. H. L. Wong*

## **Session 7A – Metal Metallurgy**

---

[Novel super-strong and ductile deformed and partitioned steel](#)

*M. X. Huang and B. B. He*

[Alloy design of nanoparticle-strengthened high-strength steels for structural applications](#)

*Z. B. Jiao and C. T. Liu*

[Development of high strength steels by artificial intelligence](#)

*C. G. Shen, X. L. Wei, C. C. Wang and W. Xu*

[Weldability assessment criterion in resistance spot welding of advanced high strength steel sheets](#)

*H. L. Yi, S. Y. Chen, X. C. Xiong, Q. Lu and J. F. Wang*



# List of papers



## **Session 7B - High Strength Steel and Composite Structures I**

---

[Study on the slip and bearing behaviour of bolted connections with high strength steel members](#)

*Y. B. Wang, Y. F. Lyu, Y. Z. Wang and G. Q. Li*

[Adaptation of buckling curves for high strength steel columns with various grades](#)

*H. Y. Ban and G. Shi*

[Experimental investigation into welding residual stresses of high strength steel box T-joints](#)

*J. Jiang, J. Liu, W. Bao and Z. Y. Peng*

[Steel-concrete composite structures at low temperatures: materials and components](#)

*J. B. Yan*

[Experimental study on the flexural strengths and rotation capacities of Q690 welded structural steel beams](#)

*G. Xiong, Q. Han, M. Elchalkani, B. Yang and Q. Peng*

## **Session 7C – Seismic Protection to Steel Structures**

---

[Seismic behaviour of damage-control fuses for high-strength steel structures](#)

*X. C. Lin, Y. Chen, H. Li and K. F. Chung*

[Seismic behaviour of exposed-type column bases with two types of yield mechanisms](#)

*Y. Cui, H. Li and F. Z. Wang*

[Experimental study on the seismic performance of damped outriggers](#)

*Q. S. Yang, Y. J. Xu, X. Z. Lu, X. C. Lin and W. J. Liao*

[Optimization design of the metallic damper in the large plastic range](#)

*C. F. Zhang and L. F. Wang*

# List of papers



## **Session 8A – Concrete-filled Steel Tubular Structures**

---

### [Experimental stress concentration factors of CFDST chord to CHS brace T-joints](#)

*W. Li, D. Wang, L. H. Han and X. L. Zhao*

### [Experiments on residual seismic performance of fire-exposed concrete-filled double-skin steel tubes](#)

*W. Li, T. Wang and L. H. Han*

### [On the behaviour of high-strength CFT slender columns](#)

*Z. C. Lai and A. H. Varma*

### [Experimental behaviour of precast concrete-filled steel tubular column-column connections](#)

*F. Y. Liao, C. Zhang, Z. Tao and K. Hassan*

### [Numerical analysis on vertically loaded ultra-high strength concrete-filled steel tube columns](#)

*T. Y. Song*

## **Session 8B – Concrete-filled Steel Tubular Structures**

---

### [Lightweight steel-concrete composite structures — recent innovations](#)

*Z. Y. Huang, F. Wang, J. Y. R. Liew and L. L. Sui*

### [Integration of green concrete in steel-concrete composite beams](#)

*B. Singh, E. L. Tan, Z. Pan, O. Mirza, and X. Yu*

### [Review of the development of Australian standards regarding resistances of buildings towards seismic activities](#)

*Y. Mamo, E. L. Tan and F. Mashiri*

### [Experimental and numerical study on retrofitted frames equipped with sector lead viscoelastic dampers](#)

*C. Zhang, W. Y. Huang, Y. Zhou and X. Xu*

### [Seismic effects on outrigger-braced high-rise buildings](#)

*Y. Zhong and R. K. L. Su*



**International Conference on  
Engineering Research and Practice  
for Steel Construction 2018**

**5 to 7 September 2018, Hong Kong**

[www.icsc2018.com](http://www.icsc2018.com)



*Organised by*

**Chinese National Engineering Research Centre  
for Steel Construction (Hong Kong Branch)**

**Address:** Room Z106, Phase 8, Block Z  
The Hong Kong Polytechnic University  
Hung Hom, Kowloon, Hong Kong

**Phone:** (852) 3400-8441

**Email:** [cnerc.steel@polyu.edu.hk](mailto:cnerc.steel@polyu.edu.hk)

**Website:** [www.polyu.edu.hk/cnerc-steel/](http://www.polyu.edu.hk/cnerc-steel/)

