The 8th International Conference on Steel and Aluminium Structures

7 – 9 December 2016
Hong Kong, China

Conference Program

THE UNIVERSITY OF HONG KONG

Organised by:

Department of Civil Engineering
The University of Hong Kong

Supported by:

Joint Structural Division of
The Hong Kong Institution of Engineers & The Institution of Structural Engineers

國家鋼結構工程技術研究中心 (香港分中心)
Chinese National Engineering Research Centre For Steel Construction (Hong Kong Branch)

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Table of Contents

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香 港 大 學
THE UNIVERSITY OF HONG KONG

Welcome Message

On behalf of the local organising committee, it is our pleasure to welcome you all to the 8th International Conference on Steel and Aluminium Structures (ICSAS) in 2016. In the past 29 years, 7 International Conferences have been successfully held in, Kuching, Malaysia (2011), Oxford, UK (2007), Sydney, Australia (2003), Helsinki, Finland (1999), Istanbul, Turkey (1995), Singapore (1991), Cardiff, UK (1987). We welcome you all to Hong Kong for the ICSAS 2016.

The conference is considered the principal showcase for steel and aluminium structures and one of the prime international forums for discussion of research, development and applications in this field. This conference has attracted 152 papers from 29 countries and 6 continents. We wish to express our sincere gratitude to all the presenting authors and participants whose contributions have made this conference possible. Hope you will have a pleasant stay and fruitful exchange in Hong Kong. Thank you for your support and looking forward to meet you all at the 9th International Conference on Steel and Aluminium Structures.

Ben Young
ICSAS 2016 Conference Chairman
December 2016

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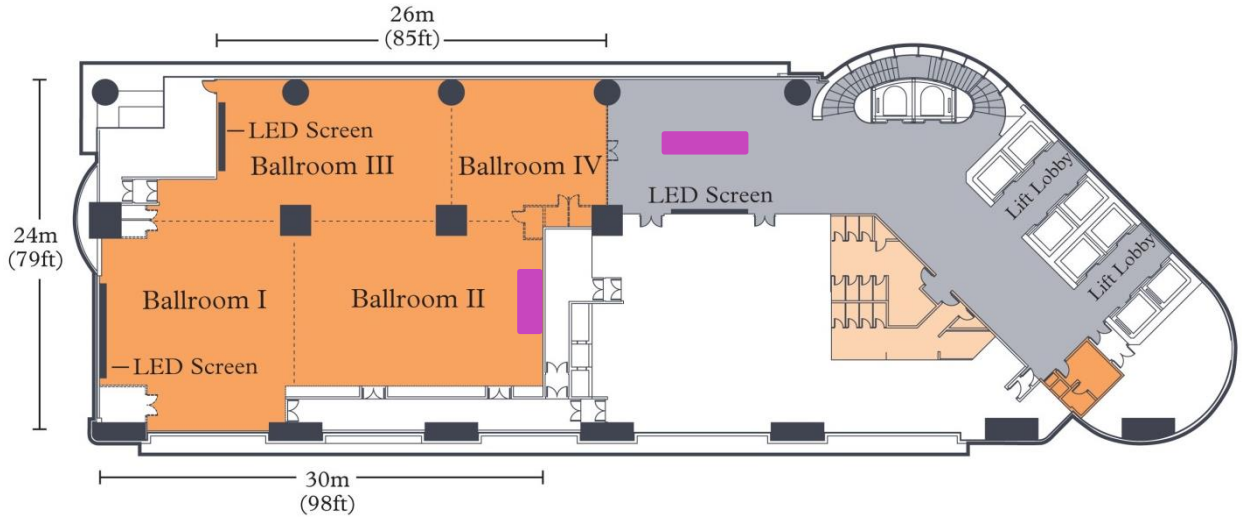
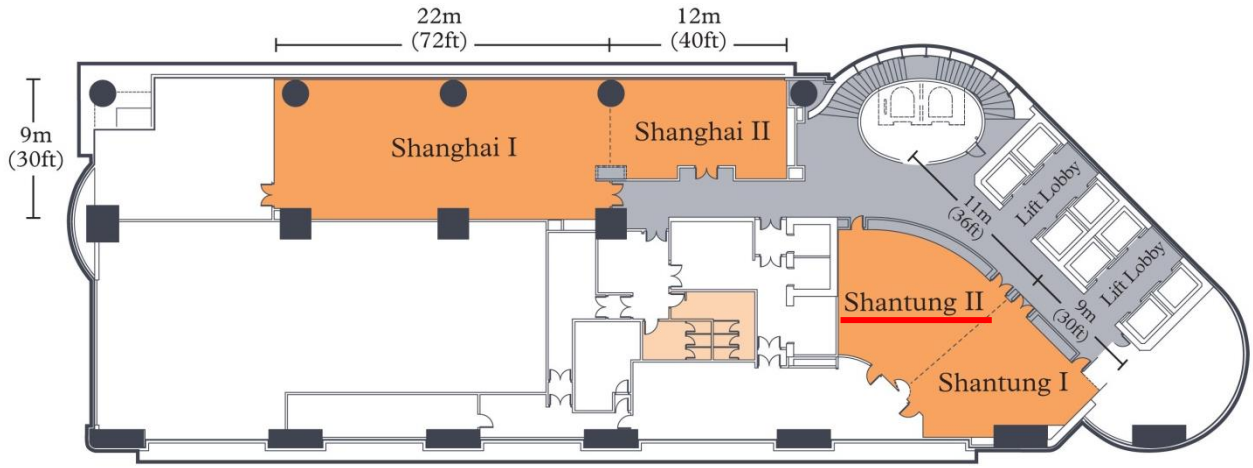
Location of Conference Rooms

The Ballroom (Level 7)



Coffee break area

Shanghai & Shantung Rooms (Level 8)



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You can enjoy free WIFI at the conference hotel (Cordis Hotel).

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Step 3: Click "Connect" to confirm all terms and conditions;
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Conference Program Overview

The 8th International Conference on Steel and Aluminium Structures (ICSAS 2016)
Cordis Hotel, 555 Shanghai Street, Mong Kok, Kowloon, Hong Kong

6 December 2016 (Tuesday)				
17:00 – 21:00	Welcome Reception Dinner & Laboratory Tour at the University of Hong Kong			
7 December 2016 (Wednesday)				
	Ballrooms I & II (Level 7 of Cordis Hotel)			
7:30 – 8:30	Registration & Morning Coffee			
8:30 – 9:00	**Opening Ceremony**			
9:00 – 10:30	**Keynote Presentation**			
10:30 – 11:00	Coffee Break			
	Ballrooms I & II (Level 7)	*Ballroom III (Level 7)*	*Shantung II (Level 8)*	
11:00 – 12:30	**Parallel Session W1A: Braced Frames**	**Parallel Session W1B: Composite Columns**	**Parallel Session W1C: Structural Stability I**	
12:30 – 14:00	Lunch at Star Room *(Level 42 of Cordis Hotel)* *### Two Michelin Stars Chef Team ###*			
14:00 – 15:15	**Parallel Session W2A: Connections I**	**Parallel Session W2B: Advanced Structural Engineering I**	**Parallel Session W2C: Tubular Joints**	
15:15 – 15:45	Coffee Break			
15:45 – 17:00	**Parallel Session W3A: Beams I**	**Parallel Session W3B: Composite Connections**	**Meeting**	
8 December 2016 (Thursday)				
	Ballrooms I & II (Level 7)			
8:15 – 9:00	Registration & Morning Coffee			
9:00 – 10:30	**Keynote Presentation**			
10:30 – 11:00	Coffee Break			
	Ballrooms I & II (Level 7)	*Ballroom III (Level 7)*	*Shantung II (Level 8)*	
11:00 – 12:30	**Parallel Session T1A: Columns**	**Parallel Session T1B: Composite Beams & Beam-columns**	**Parallel Session T1C: Trusses, Bridges and Towers**	
12:30 – 14:00	Lunch at The Place *(Lobby Level)*			
14:00 – 15:15	**Parallel Session T2A: Columns & Built-up Sections**	**Parallel Session T2B: Shear Connectors**	**JCSR Meeting**	
15:15 – 15:45	Coffee Break			
15:45 – 16:30	**Parallel Session T3A: Beams II**	**Parallel Session T3B: Advanced Structural Engineering II**	**Parallel Session T3C: Material Properties**	
18:00 – 21:30	***Conference Banquet****			
9 December 2016 (Friday)				
	Ballrooms I & II (Level 7)			
8:15 – 9:00	Registration & Morning Coffee			
9:00 – 10:30	**Keynote Presentation**			
10:30 – 11:00	Coffee Break			
	Ballrooms I&II (Level 7)	*Ballroom III (Level 7)*	*Shantung II (Level 8)*	*Ballroom IV (Level 7)*
11:00 – 12:30	**Parallel Session F1A: Girders**	**Parallel Session F1B: Composite Members under Extreme Loading Conditions**	**Parallel Session F1C: Structural Stability II**	**Parallel Session F1D: Web Crippling**
12:30 – 14:00	Lunch at Star Room *(Level 42)*			
14:00 – 15:15	**Parallel Session F2A: Beams III**	**Parallel Session F2B: Composite Members Strengthening**	**Parallel Session F2C: Cyclic Loadings**	**Parallel Session F2D: Extreme Loading Conditions I**
15:15 – 15:45	Coffee Break			
15:45 – 17:00	**Parallel Session F3A: Connections II**	**Parallel Session F3B: Composite Slabs & Trusses**	**Parallel Session F3C: Scaffolds & Frames**	**Parallel Session F3D: Extreme Loading Conditions II**

P.S. All events will be held at Cordis Hotel, <u>except Conference Banquet</u> will be held at Serenade Chinese Restaurant, 4/F, Hong Kong Cultural Centre, Restaurant Block, Tsim Sha Tsui, Kowloon.

****Coach departs at 17:30 from Carpark Level B2 (Basement 2) of the Cordis Hotel.***

Conference Program

7 December 2016 (Wednesday)	
	Ballrooms I & II (Level 7 of Cordis Hotel)
7:30 – 8:30	Registration & Morning Coffee
8:30 – 9:00	**Opening Ceremony** **Opening Address** *Professor Ben YOUNG* *ICSAS 2016 Conference Chairman, The University of Hong Kong* **Welcoming Address** *Professor T S Andy Hor* *Vice-President and Pro-Vice-Chancellor, The University of Hong Kong* **Group Photo**
9:00 – 10:30	**Keynote Presentation** Co-Chair: Reidar BJORHOVDE; Co-Chair: Guo-Qiang LI THE DIRECT DESIGN METHOD FOR COLD–FORMED STEEL STRUCTURAL FRAMES **[1]** ***Kim J.R. RASMUSSEN**, Hao ZHANG, Francisco de Sena CARDOSO and Wenyu LIU* RATIONAL DIRECT STRENGTH METHOD DESIGN OF ANGLE COLUMNS: A NOVEL SOLUTION FOR AN OLD PROBLEM **[2]** ***Dinar CAMOTIM**, Pedro B. DINIS and Alexandre LANDESMANN* THE CONTINUOUS STRENGTH METHOD FOR STEEL, STAINLESS STEEL AND ALUMINIUM STRUCTURAL DESIGN **[3]** ***Leroy GARDNER***
10:30 – 11:00	Coffee Break
	Ballrooms I & II (Level 7)
11:00 – 12:30	**Parallel Session W1A: Braced Frames** Co-Chair: Stefan HERION; Co-Chair: Robert G. BEALE VIBRATION TEST AND FINITE ELEMENT MODELING OF A STEEL FRAME SUPPORTED STANDING SEAM METAL ROOF PANEL **[76]** *J. HU, T.H. CHUI and H.F. LAM* CONSIDERATION OF IMPERFECTIONS IN SPECIAL CONCENTRICALLY BRACED FRAMES **[77]** *Zuo-Lei DU, Yao-Peng LIU and Siu-Lai CHAN* APPLICATION OF MAGNETO-RHEOLOGICAL DAMPERS IN CONCENTRICALLY BRACED FRAMES **[78]** *C. VULCU and D. DUBINA* DEVELOPMENT OF A HAND METHOD TO ESTIMATE FUNDAMENTAL PERIODS OF STEEL ECCENTRICALLY BRACED FRAMES **[79]** *Ahmet KUŞYILMAZ and Cem TOPKAYA* EVALUATION OF DISPLACEMENT AMPLIFICATION FACTORS FOR STEEL BUCKLING RESTRAINED BRACED FRAMES **[80]** *Mehmet Bakır BOZKURT, Yasin Onuralp ÖZKILIÇ, Cem TOPKAYA* NUMERICAL SIMULATION OF THE PROGRESSIVE COLLAPSE BEHAVIOUR OF STEEL SELF-CENTERING MOMENT RESISTING FRAMES **[81]** *George VASDRAVELLIS, Marco BAIGUERA and Dina AL-SAMMARAIE*
12:30 – 14:00	Lunch at Star Room (*Level 42*); ### Two Michelin Stars Chef Team ###

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

7 December 2016 (Wednesday)

11:00 – 12:30

Ballroom III (Level 7)

Parallel Session W1B: Composite Columns

Co-Chair: Brian UY; Co-Chair: Suwen CHEN

PROBABILISTIC SECTIONAL CAPACITY MODELS FOR RECTANGULAR CONCRETE-FILLED STEEL COLUMNS BASED ON EXPERIMENTAL OBSERVATIONS **[115]**
E. PAVÍA, D. HERNÁNDEZ-FIGUEIRIDO, P. GARDONI

EVALUATION OF CURRENT STANDARD CODES FOR SECTIONAL CAPACITY OF CONCRETE-FILLED STEEL COLUMNS: A NEW PROPOSAL MODEL USING ARTIFICIAL NEURONAL NETWORKS **[116]**
D. HERNÁNDEZ-FIGUEIRIDO, A. PIQUER, O. MARTINEZ RAMOS

CONCRETE–FILLED STEEL TUBULAR COLUMNS WITH INTERNAL CONFINEMENT BY HIGH STRENGTH STEEL SPIRALS **[117]**
J.G. TENG, J. ZHANG, J.J. WANG, G. LIN and P. FENG

EXPERIMENTAL INVESTIGATION OF CONCRETE-FILLED DOUBLE SKIN TUBULAR STUB COLUMNS WITH STAINLESS STEEL OUTER TUBES **[118]**
Fangying WANG, Ben YOUNG and Leroy GARDNER

ANALYTICAL MODEL FOR THE AXIAL BEARING CAPACITY OF STEEL REINFORCED CONCRETE COLUMN WITH HIGH STRENGTH MATERIALS **[119]**
Pei WU and Suwen CHEN

PLASTICITY MODEL FOR ULTRA-HIGH STRENGTH CONCRETE IN STEEL TUBES UNDER TRIAXIAL COMPRESSION **[120]**
Yan-Bo WANG and J Y Richard LIEW

Shantung II (Level 8)

Parallel Session W1C: Structural Stability

Co-Chair: Hitoshi KUWAMURA; Co-Chair: Tim WILKINSON

PREBUCKLING ANALYSES AND BUCKLING LOADS OF STEEL ARCHES **[54]**
Yong-Lin PI, Mark Andrew BRADFORD and Airong LIU

TOWARDS A GENERAL METHODOLOGY FOR THE STABILITY DESIGN OF STEEL MEMBERS **[55]**
Trayana TANKOVA, Liliana MARQUES and Luís SIMÕES DA SILVA

LATERAL TORSIONAL BUCKLING OF BEAMS WITH LOCAL TORSIONAL RESTRAINTS OF THE FLANGES **[56]**
R. STROETMANN

CRITICAL MOMENT OF THE PURLIN ON THE VARIOUS SUPPORT CONDITION **[57]**
Marcin GORSKI, Aleksander KOZLOWSKI and Leonard ZIEMIANSKI

TESTS OF PRE-TWISTED BOX-SECTION SHORT COLUMNS **[34]**
J. XU, Y. HE, F. ZHOU, Y. CHEN and Y. HUANG

CONSTRAINED FINITE ELEMENT METHOD FOR THE ANALYSIS OF SHEAR BUCKLING OF THIN-WALLED MEMBERS **[58]**
Sándor ÁDÁNY

12:30 – 14:00

Lunch at Star Room (*Level 42*); ### Two Michelin Stars Chef Team ###

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

7 December 2016 (Wednesday)

14:00 – 15:15

Ballrooms I & II (Level 7)

Parallel Session W2A: Connections I

Co-Chair: Hieng Ho LAU; Co-Chair: Lip Hen TEH

BOLTED CONNECTIONS SUBJECT TO SHEAR-OUT OR COMBINED BEARING AND SHEAR-OUT FAILURES **[36]**
Lip H. TEH and Mehmet E. UZ

JOINT STRENGTH AND STIFFNESS OF NON-DIAPHRAGM CHS-COLUMN TO H-BEAM CONNECTION **[37]**
Hitoshi KUWAMURA and Yoshiharu SATO

THICKENING EFFECT ON JOINT RESISTANCE OF NON-DIAPHRAGM CHS-COLUMN WELDED TO H-BEAM **[38]**
Hitoshi KUWAMURA and Yoshiharu SATO

ANALYSIS AND APPLICATIONS OF SEMI-RIGID JOINT DESIGN **[39]**
Jake L.Y. CHAN and S.H. LO

TOWARD THE CHARACTERIZATION OF NEW COMPONENTS IN BEAM-COLUMN JOINTS INVOLVING RHS AS COLUMNS **[40]**
Miguel A. SERRANO, Carlos LÓ PEZ-COLINA, Miguel LOZANO, Fernando LÓ PEZ-GAYARRE

Ballroom III (Level 7)

Parallel Session W2B: Advanced Structural Engineering I

Co-Chair: Leroy GARDNER; Co-Chair: Qinghua HAN

AN EFFICIENT SIMULATION-BASED DESIGN TECHNIQUE FOR TAPERED MEMBERS VIA ANALYTICAL EULER-BOUNOULI ELEMENTS **[92]**
Rui BAI, Si-Wei LIU and Siu-Lai CHAN

RELIABILITY ASSESSMENT OF DESIGN RULES FOR STAINLESS STEEL STRUCTURES **[93]**
S. AFSHAN, P. FRANCIS, N.R. BADDOO and L. GARDNER

GENERALIZATION OF UNIQUE GLOBAL AND LOCAL INITIAL IMPERFECTION USED IN EN 1993-1-1 AND EN 1999-1-1 **[94]**
Ivan BALÁŽ, Yvona KOLEKOVÁ, Michal KOVÁČ and Tomáš ŽIVNER

MODELLING OF DAMAGE TO ALUMINIUM PANELS BY WINDBORNE DEBRIS **[95]**
Mahil PATHIRANA, Nelson LAM, Shihara PERERA, Lihai ZHANG, Dong RUAN and Emad GAD

EXPERIMENTAL VALIDATION OF HIGH POST-YIELD STIFFNESS DAMPERS FOR RESIDUAL DRIFT REDUCTION **[96]**
Marco BAIGUERA, George VASDRAVELLIS, David REICHARDT and Theodore L. KARAVASILIS

Shantung II (Level 8)

Parallel Session W2C: Tubular Joints

Co-Chair: J.Y. Richard LIEW; Co-Chair: Luciano Rodrigues Ornelas de LIMA

EVALUATION OF CHS TUBULAR JOINTS REINFORCED WITH DOUBLER PLATES **[41]**
Luciana B. PEDREIRA, Luciano R. O. de LIMA, Pedro. C. G. da S. VELLASCO, Sebastião A. L. de ANDRADE, André T. da SILVA and Luis F. COSTA-NEVES

EXPERIMENTAL STUDY OF HIGH-STRENGTH STEEL CHS X JOINTS SUBJECTED TO AXIAL COMPRESSION **[42]**
Cheol-Ho LEE, Dong-Hyun CHUNG, Seon-Hu KIM, Dae-Kyung KIM, and Jin-Won KIM

A REVISIT TO THE EFFECTIVE NOTCH STRESS S-N CURVE FOR WELDED CIRCULAR HOLLOW SECTION JOINTS **[43]**
Mochamad R. PRADANA, Xudong QIAN and Somsak SWADDIWUDHIPONG

INVESTIGATION OF WELDED K-TYPE JOINTS INSIDE FLOOR TRUSS SYSTEMS **[44]**
Pooya SAREMI, Wei LU, Jari PUTTONEN and Jaak KADAK

15:15 – 15:45 (Coffee Break)

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

7 December 2016 (Wednesday)

15:45 – 17:00

Ballrooms I & II (Level 7)

Parallel Session W3A: Beams I

Co-Chair: Dinar CAMOTIM; Co-Chair: Yuner HUANG

LOCAL-DISTORTIONAL INTERACTION IN COLD-FORMED STEEL BEAMS: BEHAVIOUR, STRENGTH AND DSM DESIGN **[10]**
André D. MARTINS, Dinar CAMOTIM and Pedro B. DINIS

EXPERIMENTAL INVESTIGATION ON FLEXURAL BEHAVIOR OF COLD-FORMED STEEL SEMI-OVAL HOLLOW SECTIONS **[11]**
Man-Tai CHEN and Ben YOUNG

CASTELLATED DUPLEX AND LEAN DUPLEX STAINLESS STEEL BEAMS NUMERICAL ASSESSMENT **[12]**
Isabella GUEIROS, Renan PEREIRA, André SILVA, Luciano LIMA and Pedro VELLASCO

TESTS OF PRE-TWISTED STEEL BOX SECTION BEAMS **[13]**
H. XIA, W. ZHANG, F. ZHOU and Y. CHEN

ULTIMATE SHEAR RESISTANCE OF STAINLESS STEEL PLATE GIRDERS WITH BOTH TRANSVERSE AND INCLINED STIFFENERS **[73]**
Huanxin YUAN, Xiaowan CHEN, Xinxi DU

Ballroom III (Level 7)

Parallel Session W3B: Composite Connections

Co-Chair: Lin-Hai HAN; Co-Chair: Cheol-Ho LEE

ANALYTICAL BEHAVIOUR OF CONCRETE-FILLED STEEL TUBULAR K-JOINT USING STAINLESS STEEL **[126]**
T. WANG, C. HOU, W. LI, L.H. HAN, K. RASMUSSEN

EXPERIMENTAL INVESTIGATION OF CONCRETE-FILLED STEEL TUBULAR LONGITUDINAL GUSSET PLATE CONNECTIONS **[127]**
Fei XU, Ju CHEN and Wei-liang JIN

COMPONENT TESTS ON THE ROBUSTNESS OF THROUGH-DECK SHEAR CONNECTORS AND BOLTED BEAM-TO-COLUMN CONNECTIONS **[128]**
Qiang Fu JIANG, Qiu Ni FU, Bo YANG and Kang Hai TAN

BEHAVIOUR OF DEMOUNTABLE STEEL AND COMPOSITE BEAM-TO-COLUMN CONNECTIONS **[129]**
J. WANG, H. ZHU, B. UY, F. ASLANI

FINITE ELEMENT ANALYSIS ON CONCRETE-ENCASED CFST COLUMN TO REINFORCED CONCRETE BEAM JOINTS **[130]**
D.Y. MA, W. LI, L.H. HAN, X.L. ZHAO

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

8 December 2016 (Thursday)	
	Ballrooms I & II (Level 7)
8:15 – 9:00	Registration & Morning Coffee
9:00 – 10:30	**Keynote Presentation** Co-Chair: Shigeru SHIMIZU; Co-Chair: Hieng Ho LAU LIGHTWEIGHT STEEL-CONCRETE COMPOSITE STRUCTURES – RECENT INNOVATION AND RESEARCH BREAKTHROUGH **[4]** ***J. Y. Richard LIEW,*** *Zhenyu HUANG* AUSTRALASIAN ADVANCES IN STEEL-CONCRETE COMPOSITE BRIDGE AND BUILDING STRUCTURES **[5]** ***Brian UY,*** *Stephen J. HICKS, Won-Hee KANG, Huu-Tai THAI and Farhad ASLANI* COMPOSITE STRUCTURES IN THE CIRCULAR ECONOMY **[6]** ***D. LAM,*** *X.H. DAI, A.F. ASHOUR and N. REHMAN*
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Parallel Session T1A: Columns** Co-Chair: Ronald D. ZIEMIAN; Co-Chair: Liping WANG TESTING AND DESIGN OF STAINLESS STEEL CHS COLUMNS **[14]** *C. BUCHANAN, E. REAL and L. GARDNER* TESTING AND NUMERICAL MODELLING OF AUSTENITIC STAINLESS STEEL CHS BEAM-COLUMNS **[15]** *Ou ZHAO, Leroy GARDNER and Ben YOUNG* STUB COLUMN TESTS AND FINITE ELEMENT MODELLING OF COLD-ROLLED ALUMINIUM ALLOY 5052 CHANNEL SECTIONS **[16]** *Le Anh Thi HUYNH, Cao Hung PHAM and Kim J.R. RASMUSSEN* EXPERIMENTAL TESTS AND THEORETICAL EVALUATIONS OF COMPRESSIVE STRENGTH AND DEFORMABILITY OF CORRODED STUB COLUMNS **[17]** *Kiichiro SAWADA, Yuki DOMRU, Taiki IMAMURA and Takuya MORI* EFFECT OF IMPERFECTION ON LOCAL BUCKLING BEHAVIOR OF SQUARE HOLLOW SECTION STUB COLUMN **[18]** *Kosuke SATO and Kikuo IKARASHI* A FINITE ELEMENT STUDY OF THE INFLUENCE OF BOUNDARY CONDITIONS ON COLD-FORMED COLUMN-CHANNEL BASES SUBJECTED TO AXIAL LOAD **[19]** *Saeid SHEIKHOLAREFIN, Morgan DUNDU*
12:30 – 14:00	Lunch at The Place (*Lobby Level*)

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

8 December 2016 (Thursday)

11:00 – 12:30

Ballroom III (Level 7)

Parallel Session T1B: Composite Beams & Beam-columns

Co-Chair: Dennis LAM; Co-Chair: Chao HOU

FLEXURAL BEHAVIOUR OF THIN-WALLED DODECAGONAL SECTION DOUBLE SKIN CONCRETE-FILLED STEEL TUBES **[121]**
Jun WANG, Ju CHEN and Ji-hua ZHU

STEEL-CONCRETE COMPOSITE BEAMS SUBJECTED TO COMBINED HOGGING BENDING AND TORSION **[122]**
Weiwei LIN, Heang LAM, Teruhiko YODA and Campbell R. MIDDLETON

STRUCTURAL PERFORMANCE OF CONCRETE-FILLED FERRITIC STAINLESS STEEL MEMBERS UNDER COMBINED AXIAL LOAD AND BENDING **[123]**
Lianghao LI and Ben YOUNG

FINITE ELEMENT ANALYSIS ON HIGH-STRENGTH CONCRETE FILLED HIGH-STRENGTH SQUARE STEEL TUBE STUB COLUMNS UNDER ECCENTRIC LOADING **[124]**
Guochang LI, Bowen CHEN, Zhijian YANG and Cong WANG

SIMULATIONS OF FULLY ENCASED COMPOSITE COLUMNS UNDER CONCENTRIC AND ECCENTRIC AXIAL LOADS **[125]**
Md. Soebur RAHMAN, Mahbuba BEGUM

RESOURCE EFFICIENT STEEL AND COMPOSITE STRUCTURES FOR MULTIFUNCTIONAL COMMERCIAL BUILDINGS **[151]**
Richard STROETMANN and Lukas HUETTIG

Shantung II (Level 8)

Parallel Session T1C: Trusses, Bridges & Towers

Co-Chair: Tomasz Wojciech SIWOWSKI; Co-Chair: Jui-Lin PENG

DEVELOPMENT OF A STEEL AND GLUBAM SPACE TRUSS SYSTEM **[82]**
Y. XIAO, Y. WU and Q.W. YANG

AN ASSESSMENT OF STAINLESS STEEL TRANSMISSION LINE TOWERS **[83]**
Geziel SILVA, André SILVA, Pedro VELLASCO and Luciano LIMA

COMPARATIVE STUDY ON S355 JR AND FRICTION STIR WELDED EN AW 7075-T6 TRUSS BEAMS FOR BUILDINGS AND BRIDGES **[84]**
Melle J. GRUPPELAAR, Ricardo J. L. CARMONA and João P. S. C. MARTINS

EFFECT OF RISE TO SPAN RATIO ON THE BEHAVIOUR OF A STEEL ARCH BRIDGE FOR DIFFERENT TYPES OF HANGER ARRANGEMENT **[85]**
R. BAYYAVARAPU, S. TALUKDAR, R. LALTHLAMUANA

WALTON BRIDGE – A NEW ARCH BRIDGE OVER THE RIVER THAMES, UK **[86]**
Chris R. HENDY, Robert N. WHEATLEY, David A. SMITH

LOAD-CARRYING CAPACITY AND FAILURE MODELS OF SYSTEM SCAFFOLDS **[87]**
Jui-lin PENG, Chung-ming HO, Chung-wei WU and Chen-yu CHEN

12:30 – 14:00

Lunch at The Place (*Lobby Level*)

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

8 December 2016 (Thursday)

14:00 – 15:15

Ballrooms I & II (Level 7)

Parallel Session T2A: Columns & Built-up Sections

Co-Chair: Esther REAL; Co-Chair: Ji-Hua ZHU

MECHANICS OF DISTORTIONAL-GLOBAL INTERACTION IN FIXED-ENDED LIPPED CHANNEL COLUMNS **[59]**
André D. MARTINS, Dinar CAMOTIM, Rodrigo GONÇALVES and Pedro B. DINIS

BEHAVIOUR AND DSM DESIGN OF HAT, ZED AND RACK COLUMNS EXPERIENCING LOCAL-DISTORTIONAL-GLOBAL INTERACTION **[60]**
Pedro B. DINIS and Dinar CAMOTIM

FINITE ELEMENT ANALYSIS OF AXIALLY LOADED COLD-FORMED STEEL BACK-TO-BACK CHANNEL BUILT-UP SECTIONS **[61]**
T.C.H. TING and H.H. LAU

NUMERICAL STUDY OF COLD-FORMED STEEL BUILT-UP CLOSED SECTIONS WITH WEB HOLES UNDER BENDING **[62]**
Liping WANG and Ben YOUNG

COMPRESSION TESTS OF COLD-FORMED STEEL BUILT-UP CLOSED SECTIONS WITH WEB STIFFENERS **[63]**
Jia-Hui ZHANG and Ben YOUNG

Ballroom III (Level 7)

Parallel Session T2B: Shear Connectors

Co-Chair: Kang-Hai TAN; Co-Chair: Ju CHEN

EXPERIMENTAL STUDY FOR STATIC BEHAVIOR OF STUD CONNECTOR IN ELASTIC CONCRETE–STEEL COMPOSITE BEAMS **[131]**
Qinghua HAN, Ying XING, Jie XU, YiHong WANG and Guang YANG

EXPERIMENTAL STUDY FOR FATIGUE BEHAVIOR OF STUD CONNCETOR IN ELASTIC CONCRETE–STEEL COMPOSITE BEAMS **[132]**
Jie XU, Ying XING, Qinghua HAN, YiHong WANG and Mingjie LIU

TECHNICAL APPROVAL FOR COMPOSITE DOWELS AS SHEAR CONNECTORS FOR COMPOSITE BEAMS **[133]**
K. KATHAGE and M. FELDMANN

STRUCTURAL RESPONSE OF COMPOSITE BEAM WITH LOW DEGREE OF SHEAR CONNECTION **[135]**
T. SHEEHAN , D. LAM and X. DAI

REDUNDANCY EVALUATION OF SIMPLY SUPPORTED COMPOSITE TWIN I-GIRDER BRIDGE **[152]**
Heang LAM, Weiwei LIN and Teruhiko YODA

15:15 – 15:45 (Coffee Break)

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

8 December 2016 (Thursday)

15:45 – 16:30

Ballrooms I & II (Level 7)

Parallel Session T3A: Beams II

Co-Chair: Shigeru SHIMIZU; Co-Chair: Cao Hung PHAM

FLEXURAL RESISTANCE OF ALUMINIUM ALLOY CIRCULAR HOLLOW SECTIONS **[20]**
Meini SU, Ben YOUNG, Leroy GARDNER and Craig BUCHANAN

INFLUENCE OF FLANGE AND WEB ON LOCAL BUCKLING OF I SECTIONS UNDER BENDING **[21]**
T. WILKINSON, J. ROBINSON and A. KUGENDRAN

EXPERIMENTAL INVESTIGATION AND FINITE ELEMENT ANALYSIS OF LOCAL-OVERALL BUCKLING BEHAVIOR OF ALUMINIUM ALLOY BEAMS **[22]**
Zhongxing WANG, Yuanqing WANG and Fuxin YIN

Ballroom III (Level 7)

Parallel Session T3B: Advanced Structural Engineering II

Co-Chair: Sandor ADANY; Co-Chair: Wei LI

ENERGY-BASED CALCULATION METHOD OF LATERAL BUCKLING LOAD FOR LEANING-TYPE ARCH RIB SYSTEM **[113]**
Airong LIU, Youqin HUANG, Yi WU, Zhicheng YANG

NUMERICAL ANALYSIS ON MECHANICAL RESPONSE OF AXIALLY RESTRAINED CHORDS AT ELEVATED TEMPERATURES **[98]**
Jingzhan PENG, Yong DU, Mingxiang XIONG, Jie ZOU

OPTIMIZATION ANALYSIS OF BULKHEAD IN U-RIB OF OSD BASED ON HOT SPOT STRESS METHOD **[99]**
A. ZHU, Z. YIN, M. LI, G. XU, H. XIAO, F. GAO

Shantung II (Level 8)

Parallel Session T3C: Material Properties

Co-Chair: Enrique MIRAMBELL; Co-Chair: Feng ZHOU

MECHANICAL PROPERTIES OF COLD-ROLLED ALUMINIUM ALLOY 5052 CHANNEL SECTIONS **[45]**
Le Anh Thi HUYNH, Cao Hung PHAM and Kim J.R. RASMUSSEN

TESTING OF ADDITIVE MANUFACTURED METALLIC COUPONS AND CROSS-SECTIONS **[46]**
C. BUCHANAN, V-P. MATILAINEN, A. SALMINEN and L. GARDNER

ADVANCED NUMERICAL MODELLING ON WELDED S355 & S690 STEEL H-SECTIONS FOR RESIDUAL STRESSES **[47]**
X. LIU and K.F. CHUNG

Conference Banquet (Coach departs at 17:30 from Level B2)

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

9 December 2016 (Friday)	
	Ballrooms I & II (Level 7)
8:15 – 9:00	Registration & Morning Coffee
9:00 – 10:30	**Keynote Presentation** Co-Chair: Pedro VELLASCO; Co-Chair: Lip Hen TEH THE U.S. SPECIFICATION FOR ALUMINUM STRUCTURES (2010-16) – MAJOR CHANGES AND RESEARCH **[7]** ***Ronald D. ZIEMIAN*** *and J. Randolph KISSELL* EXPERIMENTAL TESTS ON 3D COMPOSITE FLOOR SYSTEMS AFTER REMOVAL OF AN INTERNAL COLUMN **[8]** *Q.N. FU, B. YANG and* ***K.H. TAN*** INVESTIGATION ON LIFE-CYCLE BASED THEORY OF CONCRETE-FILLED STEEL TUBULAR (CFST) STRUCTURES **[9]** ***Lin-Hai HAN***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Parallel Session F1A: Girders** Co-Chair: David HERNANDE-FIGUEIRIDO; Co-Chair: Tae Soo KIM A NUMERICAL STUDY OF CURVED STEEL I-GIRDERS SUBJECTED TO SHEAR **[64]** *E. MIRAMBELL, E. RODRIGUEZ and A. RODRIGUEZ* SHEAR BUCKLING OF LEAN DUPLEX STAINLESS STEEL PLATE GIRDERS WITH NON-RIGID END POSTS **[65]** *Maarten FORTAN, Kristof DE WILDER, Dimitri DEBRUYNE and Barbara ROSSI* SECTION MOMENT CAPACITY TESTS OF HOLLOW FLANGE STEEL PLATE GIRDERS **[66]** *Nilakshi PERERA, Mahen MAHENDRAN* A PARAMETRIC STUDY ON STIFFENED PLATE PANELS OF RECTANGULAR INDUSTRIAL DUCTS **[67]** *Ken S. SIVAKUMARAN, T. THANGA and B. HALABIAH* TESTS OF COLD-FORMED FERRITIC STAINLESS STEEL PERFORATED BEAMS OF RECTANGULAR HOLLOW SECTIONS **[33]** *Yuner HUANG and Ben YOUNG* COMPARATIVE STUDY OF FATIGUE BEHAVIOUR FOR EXISTING AND NEW STEEL BRIDGE GIRDER **[68]** *Olivia MIRZA, Brendan KIRKLAND, Bradley DEKRUIF and Fedelis MASHIRI*
12:30 – 14:00	Lunch at Star Room *(Level 42)*

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

9 December 2016 (Friday)

11:00 – 12:30

Ballroom III (Level 7)

Parallel Session F1B: Composite Members under Extreme Loading Conditions
Co-Chair: Feng ZHOU; Co-Chair: Katsuhiko GOTO

BEHAVIOR OF A CONCRETE-FILLED STEEL BOX COLUMN WITH CONSIDERING NON-LINEARITY OF THE CONCRETE UNDER THE SEISMIC LOAD **[136]**
S. ZENZAI, S. SHIMIZU

EXPERIMENTAL STUDY ON DYNAMIC BEHAVIOUR OF SHEAR CONNECTORS IN COMPOSITE BEAMS WITH PROFILED STEEL SHEETING **[134]**
Haitao WANG, Jingsi HUO and Long LI

FINITE ELEMENT ANALYSIS ON FIRE EXPOSED CONCRETE-ENCASED CFST COLUMN SUBJECTED TO CYCLIC LOADING **[137]**
T. WANG, W. LI and L.H. HAN

EXPERIMENTAL ANALYSIS AND SIMULATION OF SLENDER CONCRETE-FILLED STEEL TUBULAR COLUMN UNDER COMBINED FIRE AND LOADING **[138]**
J.Q. LIU, Z.Q. CUI, L.H. HAN, K. ZHOU and X.L. ZHAO

CRACK COLLAPSE AND COLUMN OVERDESIGN FACTOR DISTRIBUTION OF CFT FRAME **[139]**
Katsuhiko GOTO

IMPROVING CRACK RESISTANCE OF CONFINED CONCRETE BY SILICA FUME **[140]**
A.A. ROSLEE, D. FERNANDO and J.C.M. HO

Shantung II (Level 8)

Parallel Session F1C: Structural Stability II Co-Chair: Ju CHEN; Co-Chair: Bo YANG

THE ROOTS OF TENSILE SHEET BUCKLING **[69]**
N. SILVESTRE

CHORD STRESS FUNCTIONS FOR ULTIMATE STRENGTH OF CHS T-JOINTS **[52]**
Y. KUROSE and K. OCHI

THE ELASTIC BUCKLING BEHAVIOR OF THIN-WALLED STEEL CYLINDRICAL SHELL WITH FOLDED, CURVED GROOVES AND STIFFENED PLATES **[71]**
Koki HOSHIDE, Yuji SOGABE, Mitao OHGA and Tsunemi SHIGEMATSU

CRITICAL AXIAL FORCE OF TORSIONAL-FLEXURAL BUCKLING FOR VARIOUS BOUNDARY CONDITIONS BY GOLDENVEJZER'S APPROXIMATE METHOD **[72]**
Michal KOVÁČ, Ivan BALÁŽ, Yvona KOLEKOVÁ and Tomáš ŽIVNER

BUCKLING BEHAVIOR OF STIFFENED PLATES UNDER BIAXIAL COMPRESSION AND SHEAR **[74]**
Joseph NDOGMO, Martin MENSINGER

BEHAVIOUR OF SUBMERGED CIRCULAR TOROIDAL VESSELS **[75]**
Nosakhare ENOMA and Alphose ZINGONI

Ballroom IV (Level 7)

Parallel Session F1D: Web Crippling Co-Chair: Kim J.R. RASMUSSEN; Co-Chair: Meini SU

EXPERIMENTAL AND NUMERICAL INVESTIGATION OF COLD-FORMED STEEL SECTIONS WITH WEB OPENINGS UNDER ONE-FLANGE LOADING CONDITION SUBJECTED TO WEB CRIPPLING **[23]**
Ying LIAN, Asraf UZZAMAN, James B.P. LIM, Gasser ABDELAL, David NASH and Ben YOUNG

PARAMETRIC STUDIES AND DESIGN RECOMMENDATIONS OF COLD-FORMED STEEL SECTIONS WITH WEB OPENINGS SUBJECTED TO WEB CRIPPLING **[24]**
Ying LIAN, Asraf UZZAMAN, James B.P. LIM, Gasser ABDELAL, David NASH and Ben YOUNG

WEB CRIPPLING OF COLD-FORMED HIGH STRENGTH STEEL TUBULAR SECTIONS UNDER ONE-FLANGE LOADING CONDITIONS **[25]**
Hai-Ting LI and Ben YOUNG

EXPERIMENTAL AND NUMERICAL STUDIES ON THE EFFECT OF FLANGE RESTRAINTS ON TENSION FIELD ACTION IN COLD-FORMED C-SECTIONS IN SHEAR **[26]**
Dmitry ZELENKIN, Cao Hung PHAM and Gregory J. HANCOCK

MODAL ANALYSIS OF LIPPED CHANNEL SECTIONS WITH RECTANGULAR WEB-STIFFENERS IN SHEAR **[27]**
Morgan A. RENDALL, Gregory J. HANCOCK and Kim J.R. RASMUSSEN

NUMERICAL ANALYSIS OF STIFFENED CURVED PANELS UNDER COMPRESSION **[28]**
Tiago MANCO, João P. MARTINS, Constança RIGUEIRO and Luís SIMÕES DA SILVA

12:30 – 14:00 Lunch at Star Room *(Level 42)*

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

9 December 2016 (Friday)			
14:00 – 15:15			
Ballrooms I & II (Level 7)	*Ballroom III (Level 7)*	*Shantung II (Level 8)*	*Ballroom IV (Level 7)*
Parallel Session F2A: Beams III Co-Chair: Richard STROETMANN; Co-Chair: Sheida AFSHAN DESIGN OF COLD-FORMED HIGH STRENGTH STEEL TUBULAR STUB COLUMNS AND BEAMS **[29]** *Jia-Lin MA, Tak-Ming CHAN and Ben YOUNG* FULL SLENDERNESS RANGE DSM APPROACH FOR FERRITIC STAINLESS STEEL HOLLOW CROSS-SECTIONS **[30]** *I. ARRAYAGO, K.J.R. RASMUSSEN and E. REAL* DESIGN AND BEHAVIOUR OF COLD-FORMED FERRITIC STAINLESS STEEL SHS AND RHS BEAMS **[31]** *Lianghao LI and Ben YOUNG* NUMERICAL SIMULATIONS OF HORIZONTALLY-RESTRAINED STEEL BEAMS SUBJECTED TO IMPACT LOADS **[32]** *Lin WANG, Bo YANG, Shao-Bo KANG, Hao WANG and Gang XIONG* TESTS ON THE BENDING CAPACITY OF COLD-FORMED STAINLESS STEEL RECTANGULAR HOLLOW SECTIONS **[35]** *Baofeng ZHENG, Xiaoming SHEN, Lianchun XIN, and Ganping SHU*	**Parallel Session F2B: Composite Members Strengthening** Co-Chair: Ken S. SIVAKUMARAN; Co-Chair: Yuner HUANG EXPERIMENTAL STUDY ON STEEL CHS SLENDER COLUMNS STRENGTHENED BY CFRP UNDER AXIAL COMPRESSION **[141]** *Haiying WAN, Ran FENG and Jun PENG* ADVANCES IN THE STUDY OF STEEL FLEXURAL MEMBERS STRENGTHENED BY CFRP **[142]** *Haiying WAN, Ran FENG and Qiuru CHEN* FLEXURAL STRENGTHENING OF STEEL BEAMS WITH PASSIVE AND ACTIVE CFRP PLATES **[143]** *Tomasz W. SIWOWSKI, Paulina PAŚKO* IMPROVING THE FLEXURAL STIFFNESS AND LATERAL TORSIONAL BUCKLING BEHAVIOUR OF THE STRUCTURAL STEEL CHANNEL SECTIONS BY CFRP STRENGTHENING **[144]** *Sivaganesh SELVARAJ, Mahendrakumar MADHAVAN, Saurabh U. DONGRE and Jayaraman VEKATESAN* REINFORCED CONCRETE BEAMS STRENGTHENED WITH STEEL PLATES OF DIFFERENT WIDTH-TO-THICKNESS RATIOS **[145]** *SM RAKGATE and M. DUNDU*	**Parallel Session F2C: Cyclic Loadings** Co-Chair: Cem TOPKAYA; Co-Chair: Jia-Hui ZHANG CYCLIC LOADING TESTS OF STRUCTURAL STAINLESS STEEL AUSTENITIC 304 **[100]** *L. LI, F. ZHOU* EXPERIMENTAL INVESTIGATION INTO HYSTERETIC BEHAVIOUR OF HIGH STRENGTH S690 STEEL UNDER DIFFERENT TARGETED STRAINS **[101]** *H.C. HO, X. LIU, M. XIAO and K.F. CHUNG* LOW CYCLE HIGH STRAIN CYCLIC TESTS ON STEEL COUPONS OF HIGH STRENGTH S690 STEEL WELDED SECTIONS **[102]** *K.F. CHUNG, H.C. HO, X. LIU, and M. XIAO* NUMERICAL SIMULATION OF HYSTERETIC BEHAVIOR OF Q690D HIGH STRENGTH STEEL H-SECTION BEAM-COLUMNS **[103]** *Le-Tian HAI, Guo-Qiang LI and Yan-Bo WANG* NUMERICAL MODELLING OF ELLIPTICAL STEEL TUBULAR BRACING MEMBERS UNDER EXTREMELY LOW CYCLE FATIGUE LOADING **[104]** *Perumalla V R. NARENDRA and Konjengbam Darunkumar SINGH*	**Parallel Session F2D: Extreme Loading Conditions I** Co-Chair: Barbara ROSSI; Co-Chair: Yancheng CAI NUMERICAL STUDY OF SIMPLE AND RIGID BEAM-COLUMN JOINTS SUBJECT TO IMPACT LOAD **[105]** *K. CHEN, K.H. TAN and B. YANG* A PARAMETRIC STUDY ON BEARING STRENGTHS OF COLD-FORMED STAINLESS STEEL BOLTED CONNECTIONS AT ELEVATED TEMPERATURES **[106]** *Yancheng CAI and Ben YOUNG* CASE STUDY OF RESIDUAL FIRE RESISTANTCE OF MULTISTORY STEEL FRAMES FOLLOWING MODERATE EARTHQUAKES **[107]** *Mian ZHOU, Liming JIANG, Yanjun WANG, Suwen CHEN, Asif USMANI* SHEAR RESISTANCE OF STIFFENED ANGLE SHEAR CONNECTOR CONSIDERING ELEVATED TEMPERATURE EFFECT **[108]** *Karim NOURI, N. H. RAMLI SULONG and Mahdi SHARIATI* THE SETTLEMENT INVESTIGATION OF A STEEL PIPE SHEET PILE FOUNDATION DURING POST LIQUEFACTION **[109]** *Nguyen Thanh TRUNG*
15:15 – 15:45 (Coffee Break)			

Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

9th December 2016 (Friday)			
15:45 – 17:00			
Ballrooms I & II (Level 7)	*Ballroom III (Level 7)*	*Shantung II (Level 8)*	*Ballroom IV (Level 7)*
Parallel Session F3A: Connections II Co-Chair: Wei LU; Co-Chair: André TENCHINI DA SILVA A STUDY ON PERFORMANCES OF SCREW CONNECTION FOR COLD-FORMED STEEL STRUCTURES **[48]** *H.H. LAU, T.Z.H. TING, W.M. QUACH, D.Y.X. TIE, S. FAIRUZ and A. AHMADI* EXPERIMENTAL AND THEORETICAL INVESTIGATION OF CUPLOCK® SPIGOT CONNECTIONS **[49]** *João ANDRÉ, Robert G. BEALE and António M. BAPTISTA* ULTIMATE STRENGTH ON THE STRUCTURAL BEHAVIORS OF THIN-WALLED ALUMINUM ALLOY (7075-T6) BOLTED CONNECTIONS **[50]** *Bo-Kyung HWANG, Hoo-Chang LEE and Tae-Soo KIM* AN INVESTIGATION ON ULTIMATE STRENGTH OF AUSTENITIC STAINLESS STEEL (304 TYPE) FILLET-WELDED CONNECTIONS WITH FRACTURE OF WELD METAL **[51]** *Hoo-Chang LEE, Bo-Kyung HWANG and Tae-Soo KIM* SIMPLIFIED MODELS FOR HANGER CONNECTIONS AT TIED ARCH BRIDGES **[53]** *Marjolaine PFAFFINGER and Martin MENSINGER*	**Parallel Session F3B: Composite Slabs & Trusses** Co-Chair: Pedro VELLASCO; Co-Chair: Meini SU INFLUENCE OF NON-UNIFORM SHRINKAGE ON THE LONG-TERM BEHAVIOUR OF STEEL-CONCRETE COMPOSITE SLABS **[146]** *Safat AL-DEEN* COMPOSITE FLOORING SYSTEMS COMPRISING COLD-FORMED STEEL JOISTS AND WOOD-BASED BOARDS **[147]** *Pinelopi KYVELOU, Leroy GARDNER and David A. NETHERCOT* EXPERIMENTAL STUDY: FULL-SCALE COMPOSITE FLOOR PLATE TEST **[148]** *X. DAI, D. LAM, T. SHEEHAN* ANALYTICAL BEHAVIOUR OF CFST CHORD TO HOLLOW TUBULAR BRACE TRUSS SUBJECTED TO BENDING **[149]** *Chao HOU, Lin-Hai HAN and Shan-Hu HE* DESIGN OF STEEL-CONCRETE-STEEL SANDWICH COMPOSITE SHELL STRUCTURES **[150]** *Zhenyu HUANG, J.Y. Richard LIEW*	**Parallel Session F3C: Scaffolds & Frames** Co-Chair: Yonglin PI; Co-Chair: Ou ZHAO SYSTEM RELIABILITY-BASED DESIGN OF SEMI-RIGID STEEL FRAMES BY ADVANCED ANALYSIS **[88]** *Huu-Tai THAI and Brian UY* INCREMENTAL DYNAMIC ANALYSIS AND SEISMIC PERFORMANCE EVALUATION OF AN ALUMINUM FRAMED BUILDING COMPARED WITH STEEL **[89]** *Vahid MEIMAND, Shahab TORABIAN, Benjamin W. SCHAFER, Randy KISSELL, Cristopher D. MOEN, and Brooks H. SMITH* BUCKLING STRENGTH OF THIN-WALLED STRUCTURES WITH FOLDED AND CURVED GROOVES IN CONSIDERATION OF THE CURVATURES OF CORNERS AND STIFFENED PARTS **[70]** *Koki HOSHIDE, Yuji SOGABE, Mitao OHGA and Tsunemi SHIGEMATSU* OPTIMUM DESIGN OF COLD-FORMED STEEL PORTAL FRAME ACCOUNTING FOR EFFECT OF SEMI-RIGID JOINTS **[90]** *DT PHAN, JPB LIM, H-H LAU* SECOND ORDER NUMERICAL ANALYSIS OF FULL-SCALE TUBE AND FITTING SCAFFOLD STRUCTURES WITH NON-LINEAR MOMENT-CURVATURE: COMPARISON OF 2D AND 3D MODELS **[91]** *Maha AL-LASASSMEH, Mu'tasim ABDEL-JABER, Maha ALQAM and Robert G. BEALE*	**Parallel Session F3D: Extreme Loading Conditions II** Co-Chair: Nuno SILVESTRE; Co-Chair: Jia-Lin MA COMPUTATIONAL STUDY ON SEISMIC STEEL STRUCTURES WITH LARGE DEFORMABLE ELASTIC BRACES **[97]** *Kiichiro SAWADA, Ginji NISHIDA, Kento NAKAMURA, Hiroki ETO and Masashi TSURUDA* ANALYTICAL METHOD FOR MECHANICAL RESPONSE OF PRE-TENSION STEEL CABLES EXPOSED TO LOCALISED FIRES **[110]** *Binyan CHEN, Yong DU, J.Y. Richard LIEW, Guoqiang LI* EXPERIMENTAL STUDY ON SPRING SET FOR AXIALLY RESTRAINED CHORDS IN FIRE **[111]** *Pudi ZHANG, Yong DU, Mingxiang XIONG and Yongzhen ZHANG* ANALYTICAL METHOD OF MECHANICAL BEHAVIORS FOR BEAM STRING STRUCTURE EXPOSED TO LOCALIZED FIRES **[112]** *Fei CHENG, Yong DU, Hongmei SHENG* A NOVEL SELF-CENTERING ENERGY DISSIPATION DEVICE WITH SHAPE MEMORY ALLOYS CONSIDERING TEMPERATURE EFFECTS **[114]** *Ran LI, Ganping SHU and Zhen LIU*

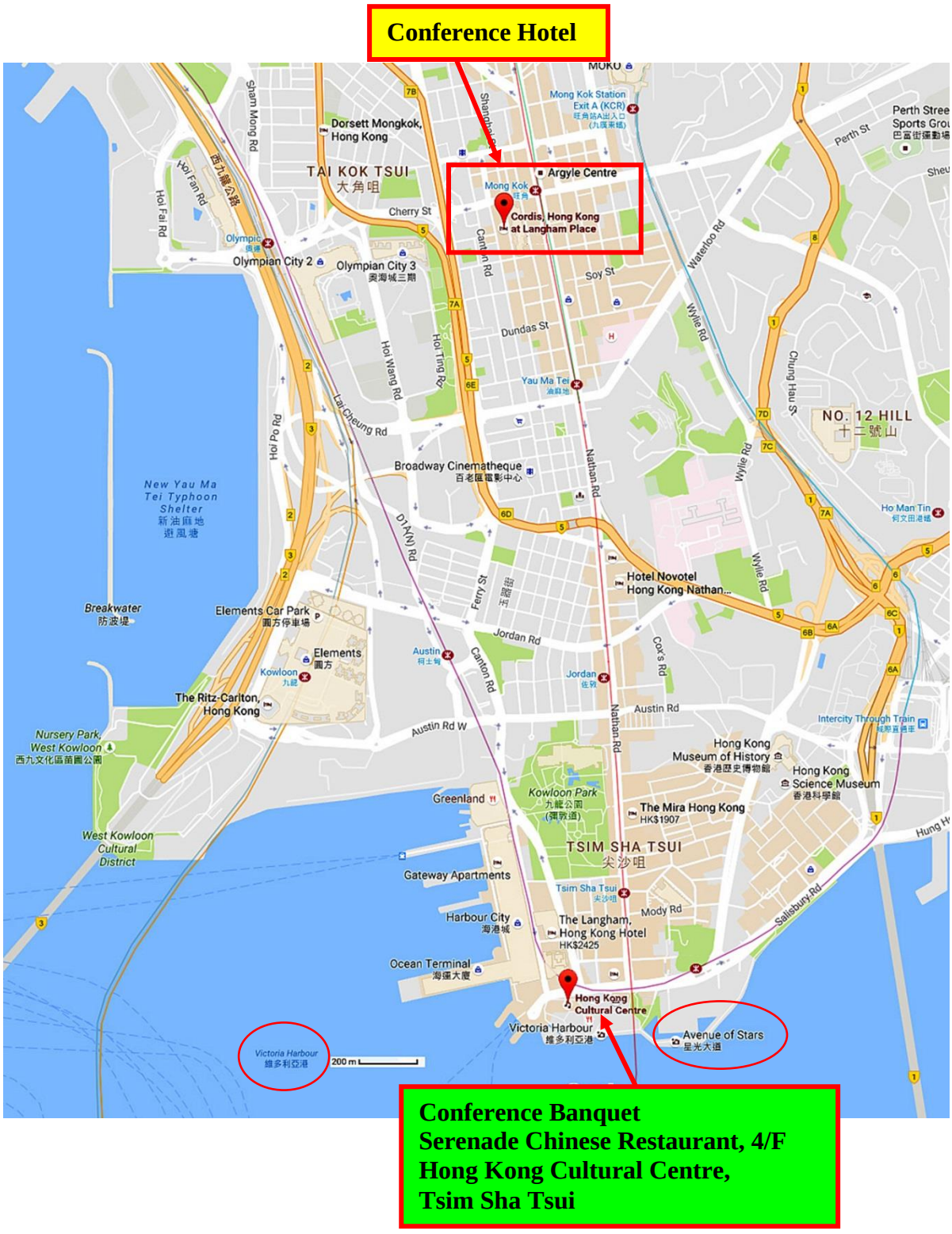
Notes: 12 min presentation + 3 min Q&A in parallel sessions; **[#]** = Paper number.

Location of Conference Banquet

The 8th International Conference on Steel and Aluminium Structures

Date: 8 December 2016 (Thursday)
Time: 17:30* (18:00 – 21:30)
Venue: Serenade Chinese Restaurant, 4/F, Hong Kong Cultural Centre, Restaurant Block, Tsim Sha Tsui.
Tel: +852 2722 0932
Website: http://www.maximschinese.com.hk/eng/restaurant/outlet_facts.aspx?sId=30

Coach departs at 17:30 from Carpark Level B2 (Basement 2) of the Cordis Hotel.




Tsim Sha Tsui MTR Station
Exit L6
Hermès
Breguet
Canton Rd
Kowloon Park Dr
Hankow Rd
Middle Rd
Prestige Tower
彩星中心
L4
L3
L1
Michael Kors
The Peninsula
Hong Kong
半島酒店
L6
Salisbury Rd
Hong Kong
Space Museum
香港太空館
Hong Kong
Cultural Centre
Serenade Chinese
Former Kowloon-Canton
Railway Clock Tower
尖沙咀鐘樓
Hong Kong
Museum Of Art
香港藝術館
Kowloon Public Pier
Victoria Harbour
Conference Banquet
Serenade Chinese Restaurant, 4/F
Hong Kong Cultural Centre,
Tsim Sha Tsui

Notes:

Notes:

Conference Program Overview

The 8th International Conference on Steel and Aluminium Structures (ICSAS 2016)

Cordis Hotel, 555 Shanghai Street, Mong Kok, Kowloon, Hong Kong

	6 December 2016 (Tuesday)		
17:00 – 21:00	Welcome Reception Dinner & Laboratory Tour at The University of Hong Kong		
	7 December 2016 (Wednesday)	8 December 2016 (Thursday)	9 December 2016 (Friday)
7:30 – 8:30	Registration & Morning Coffee		
8:30 – 9:00	**Opening Ceremony**	(8:15 – 9:00) Registration & Morning Coffee	
9:00 – 10:30	**Keynote Presentation** Ballrooms I & II		
10:30 – 11:00	Coffee Break		
11:00 – 12:30	**Parallel Sessions** Ballrooms I & II, Ballroom III and Shantung II		**Parallel Sessions** Ballrooms I & II, Ballroom III, Ballroom IV and Shantung II
12:30 – 14:00	Lunch at Star Room *(Level 42)* ### Two Michelin Stars Chef Team ###	Lunch at The Place *(Lobby Level)*	Lunch at Star Room *(Level 42)*
14:00 – 15:15	**Parallel Sessions** Ballrooms I & II, Ballroom III and Shantung II	**Parallel Sessions** Ballrooms I & II, and Ballroom III	**Parallel Sessions** Ballrooms I & II, Ballroom III, Ballroom IV and Shantung II
15:15 – 15:45	Coffee Break		
15:45 – 17:00 (15:45 – 16:30 on Thursday)	**Parallel Sessions** Ballrooms I & II and Ballroom III	**Parallel Sessions** Ballrooms I & II, Ballroom III and Shantung II	**Parallel Sessions** Ballrooms I & II, Ballroom III, Ballroom IV and Shantung II
18:00 – 21:30		***Conference Banquet****	

Note: Ballrooms are located at 7/F, and Shantung II room is located at 8/F.

P.S. All events will be held at Cordis Hotel, except Conference Banquet will be held at Serenade Chinese Restaurant, 4/F, Hong Kong Cultural Centre, Restaurant Block, Tsim Sha Tsui, Kowloon.

Coach departs at 17:30 from Carpark Level B2 (Basement 2) of the Cordis Hotel.