

INNOVATIVE TECHNOLOGIES & MATERIALS IN STEEL STRUCTURES

ISSS-2017

The 9th International Symposium on
STEEL STRUCTURES

November 1-4, 2017
Jeju Oriental Hotel, Jeju, Korea

Organized by
Korean Society of Steel Construction

In cooperation with
International Journal of Steel Structures (IJOSS)
(<http://www.springer.com/journal/13296>)

SYMPOSIUM OVERVIEW

November 1, Wednesday					
16:00-17:30	Registration			(Halla Hall Foyer)	
18:00-19:30	Welcoming Reception			(Sara Hall)	
November 2, Thursday					
08:00-	Registration			(Halla Hall Foyer)	
08:30-09:00	Opening Ceremony			(Halla Hall)	
09:00-09:30	Keynote Lecture 1 - Dan M. Frangopol				
09:30-10:00	Keynote Lecture 2 - Guo-Qiang Li				
10:00-10:20	Coffee Break			Poster (Ilchul Hall Foyer)	
	Halla Hall	Ilchul Hall	Sara Hall I		Sara Hall II
10:20-12:20	Session 1 Bridge Engineering I	Session 2 Seismic Behaviour of Steel Structures I	Session 3 Composite & Hybrid Structures I		Session 4 Column Bases & Roof Joints
12:20-13:20	Lunch				(Manhaejung, B1)
13:20-15:20	Session 5 Corrosion & Damage Assessment	Session 6 Seismic Behaviour of Steel Structures II	Session 7 Building Frame Analysis		Session 8 Connections
15:20-15:40	Coffee Break				
15:40-17:40	Session 9 Earthquake & Wind Engineering I	Session 10 Advanced Technologies for Construction & Maintenance of Steel Bridges	Session 11 Advances in Steel- Concrete Composite Structures		Session 12 High Performance Steel Structural Systems
18:30	Banquet				(Halla Hall)
November 3, Friday					
08:00-	Registration				(Halla Hall Foyer)
09:00-09:30	Keynote Lecture 3 - Roberto T. Leon				(Halla Hall)
09:30-10:00	Keynote Lecture 4 - Ken'ichi Kawaguchi				
10:00-10:20	Coffee Break				
	Halla Hall	Ilchul Hall	Sara Hall I	Sara Hall II	
10:20-12:20	Session 13 Steel Bridge Rehabilitation	Session 14 Steel and Composite Structures for Nuclear and High-rise Applications	Session 15 Advanced Steel Application	Session 16 Fatigue & Fracture Mechanics	
12:20-13:20	Lunch			(Manhaejung, B1)	
13:20-15:20	Session 17 Earthquake & Wind Engineering II	Session 18 Design for Extreme Events such as Fire, Blast and Missile Impact	Session 19 Advances in Steel and Composite Structures	Session 20 Stability	
15:20-15:40	Coffee Break				
15:40-17:40	Session 21 Bridge Engineering II	Session 22 Numerical Analysis, Measurement and Control of Structural Vibration	Session 23 Composite & Hybrid Structures II	Session 24 Smart Materials, Devices, and Structures	
November 4, Saturday					
Post - Symposium Tour					

November 3, Friday

08:00	Registration	
09:00 – 09:30	Keynote Lecture 3	Chair: Byong-Jeong Choi, Kyonggi Univ., Korea Composite Construction: Challenges and Future Developments <i>Roberto T. Leon, Virginia Tech., USA</i>
09:30 – 10:00	Keynote Lecture 4	Development of Prestressed Lightweight Steel Frames: Tensegrity Skeletons and Tension truss system <i>Ken'ichi Kawaguchi, University of Tokyo, JAPAN</i>

Time	Session 13(Halla Hall)	Session 14(Ilchul Hall)	Session 15(Sara Hall I)	Session 16(Sara Hall II)
10:20-12:20	Steel Bridge Rehabilitation Chairs: Masahiro Sakano, Kansai Univ., Japan Kab-Soo Kyung, Korea Maritime & Ocean Univ., Korea	Steel and Composite Structures for Nuclear and High-rise Applications Chairs: Amit H. Varma, Purdue Univ., USA Jungil Seo, Purdue Univ., USA	Advanced Steel Application Chairs: Ho-Seong Mha, Hoseo Univ., Korea Seunghye Lee, Sejong Univ., Korea	Fatigue & Fracture Mechanics Chairs: Yeun Chul Park, Seoul National Univ., Korea Takeshi Mori, Hosei Univ., Japan
10:20 - 10:35	Fatigue Behavior at the Upper End of Web Gap Plates under RC Slab <i>Chihiro Sakamoto, Masahiro Sakano, Hideyuki Konishi, Masahiro Koyama</i>	Effect of Combination of Mass and Impact velocity on the Behavior of RC Beams Subjected to Impact Loading <i>Yong Jae Yu, Chunghyeon Kim, Jae-Yeol Cho</i>	Various Techniques of Deep Learning for Structural Engineering <i>Seunghye Lee, Jaehong Lee</i>	Numerical Study on Stress Intensity Factors in Four-point Bend Specimens Repaired by Cfrp <i>Cheng Huang, Tao Chen, Siyuan Feng</i>
10:35 - 10:50	Fatigue Strength Improvement of Welded Joints by Shot-peening <i>Koji Kinoshita, Yuki Banno, Yuki Ono, Shohei Yamada, Mitsuru Handa</i>	Experimental Study on High Strength Steel Endplate Connections in Fire <i>Xuhong Qiang, Nianduo Wu, Yongfeng Luo, Xu Jiang</i>	Load-carrying Capacity of Cruciform Columns made of SBHS400 <i>Toshiki Adake, Kiyoshi Ono, Takeshi Miyashita</i>	Framework for Fatigue Reliability Assessment Reflecting Inspection Result <i>Jun Yong Park, Yeun Chul Park, Ho-Kyung Kim</i>
10:50 - 11:05	Effects of ICR Treatment on Weld Toe Cracks at Gusset Plate Edge of Out-of-Plane Gusset Welded Joints <i>Koji Kinoshita, Ryoma Akiyama, Yuki Ono</i>	Summary of Missile Impact Tests on Steel Plate Composite (SC) Walls <i>Amit Varma, Joo Min Kim, Jungil Seo, Kyungkoo Lee, Kapsun Kim</i>	Study on the Steel Protection Frame for the IT Equipments of the Underwater Communication Network Systems <i>Ho-Seong Mha, Hyo Sang Cho, Won ung Yoon, Hak-Lim Ko, Jeong-Hun Won</i>	Experimental and Theoretical Research on Low-cycle Fatigue Performance of High-Strength Concrete-filled Square Steel Tubular Columns <i>Yun Deng, Wenfu Zhang, Chen Li</i>
11:05 - 11:20	Fatigue Strength Improvement of Out-of-plane Gusset Welded Joints by Portable Pneumatic Needle-peening Treatment <i>Koji Kinoshita, Yuki Banno, Yuki Ono, Shohei Yamada, Mitsuru Handa</i>	Output-only System Identification for Monitoring Wind-induced Responses of a Tall Building Structure <i>Seok-Jae Heo, Dae-Ho Moon, Sang-Hyun Lee</i>	Bilinear Manson-Coffin Low Cycle Fatigue Relationship of Structural Steel <i>Yu Jiao, Satoshi Yamada</i>	Fatigue Crack Initiation-propagation and Strength of Out-of-Plane Gusset Welded Joints under Compressive Cyclic Stresses <i>Takeshi Mori, Hideo Tokida</i>
11:20 - 11:35	Experimental Study on Fatigue Strength of Steel Plate with Appendage Secured with Thread Forming Screw <i>Hiroyuki Suzuki</i>	Multi-Mode Control of a Building Structure Using Active Mass Dampers <i>Dae-Ho Mun, Seok-Jae Heo, Sang-Hyun Lee</i>	A Study on the Effective Spacing of a Longitudinal Stiffener in Cylindrical Shells with Geometric Imperfections <i>MinSeo Jang, Jongmin Kim, YoungJong Kang</i>	Influence of Shear Panel Shape in Multiple Steel Columns on Low Cycle Fatigue <i>Masaru Shimizu, Kazuo Tateishi, Takeshi Hanji, Hiroshi Noda, Hiroki Sugiyama, Yasumasa Soga</i>
11:35 - 11:50	Patch Plate Repair Method Combined Adhesion and Stud Bolts <i>Toshiyuki Ishikawa, Takuya Ikeda</i>	On the Flexural Behavior of Composite Plate Shear Walls (CPSW) for High-rise Buildings <i>Zhichao Lai, Amit Varma, Jungil Seo, April Wang</i>	Monitoring Update Scenario Models based on Bridge Inspection Data <i>Jin Hyuk Lee, Sang Mi Ahn, Kyung Yong Lee, Jung Sik Kong</i>	Cyclic and Static Loading Test of U-shape Steel Bellows to Be Used as Energy Absorber <i>A.M. Arafat, H. Zui, K. Tanaka, H. Shinmyou, D. Sagou, M. Matsumura, K. Sugiura</i>
11:50 - 12:05	Applicability of Induction Heating on Paint Coating Removal of Steel Bridge Member <i>Masaaki Nakamura, Mikihito Hirohata, Katsuyuki Inoue, Hideyuki Konishi</i>	On the Lateral Behavior of Concrete-filled Composite Plate Shear Walls <i>Amit Varma, Jungil Seo, Zhichao Lai</i>	Tensile Strength Tests on Adhesively Bonded Joint Area of Orthotropic Steel Deck with SFRC Overlay Exposed in Outdoor Environment <i>Sanshiro Haba, Jun Murakoshi, Shuichi Ono, Ayumu Sato, Takeshi Mori, Yusuke Kishi</i>	Stress Intensity Factors of CFRP-strengthened Asymmetric Semi-circular Bend Specimen with Mix-mode Crack <i>Liang Hu, Tao Chen</i>
12:05 - 12:20	Evaluation of Repair Effect for Cracked I-beam End in Railway Steel Bridges <i>Haruya Shirai, Takeshi Hanji, Kazuo Tateishi, Masaru Shimizu, Masaki Iwai, Ken Ikegashira, Yuichiro Niwa</i>			Fatigue Life Prediction of Corroded Reinforcing Steel Bars <i>Takeshi Hanji, Niamatullah Ahmadzai, Kazuo Tateishi, Masaru Shimizu</i>
12:20 - 13:20	Lunch			