# The 15th Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures, Taipei, Taiwan, November 28-29, 2013

Thursday, November 28
08:00-08:30 Registration
08:30-09:00 Opening Session
Prof. Chung-Che CHOU
Prof. Yasushi SANADA
Prof. Cheol-Ho LEE
Prof. Jia-Yush YEN
Prof. Kuo-Chun CHANG

## 09:00-10:40 Session A: Reinforced Concrete Structures

Chairman: Prof. Hiroshi KURAMOTO and Prof. Yu Chen OU

1. Investigation of Shear-Dominated Response of Multi-Story RC Structural Walls with Eccentric Openings

Rafik Taleb, Masanobu Sakashita and Susumu Kono

- **2.** Analytical investigations on the seismic response of an RC box-type wall building structural system *Kyung Ran Hwang and Han Seon Lee*
- 3. Seismic Capacity Evaluation Of R/C Frame With URM Infill Focused On Diagonal Structure Mechanism

Ho Choi, Ki-Woong Jin and Yoshiaki Nakano

- **4. Study on Sliding Shear Failure of Reinforced Concrete Bearing Wall** *Masanori Tani, Susumu Kono and Hiroshi Fukuyama*
- **5. Prediction of Shear Strength for Reinforced Concrete Short Columns Using High Strength Material** *Yi-An Li and Shyh-Jiann Hwang*

### 10:40-11:10 Coffee Break

## 11:10-12:30 Session B: Steel Framed Structures

Chairman: Prof. Cheol-Ho LEE and Prof. Cheng-Chih CHEN

- 6. Effects of Static Loading Sequences on Testing Capacity of Braces in Concentrically Braced Steel Frame System Chui-Hsin Chen and Huai-Kuo Hu
- Seismic behavior of self-centering designed Concentrically Braced Frame

Chin-Tung Cheng and Chia-Yi Yen

- 8. Numerical Analysis of Collapsing Behavior for Multi-Story Steel Moment Frames Considering Strength Degradation by Local Buckling Seiji Mukaide and Motohide Tada
- 9. Seismic Responses and Finite Element Analyses of A Novel Steel Dual-Core Self-Centering Braced Frame

Chung-Che Chou, Ying-Chuan Chen, Pham Dinh Hai, Alexis Rafael Ovalle Beato, Tsung-Han Wu

## 12:30-13:40 Lunch

## 13:40-15:20 Session C: Reinforced Concrete Members

Chairman: Prof. Han Seon LEE and Prof. Yin-Nan HUANG

10. Lateral-Force Resisting Mechanisms of Flexure-Dominant Multi-Story Structural Walls with Soft-First-Story

Yuki Idosako, Masanobu Sakashita, Xaioshan Feng and Minehiro Nishiyama

- 11. Effect Of Axial Compression On Shear Strength Of Reinforced Concrete Columns With High-Strength Steel And Concrete Yu Chen Ou and Dimas Pramudya Kurniawan
- **12.** Bi-Directional Lateral Behavior of Post-Tensioned Corner Slab-Column Connections Thomas Kang
- **13.** Seismic Performance of Pre-tensioned Beams Using Steel-Fiber Reinforced Concrete *Mitsuya Mori, HyeongJae Yoon, Minehiro Nishiyama*
- 14. Analytical Model For Load-Displacement Curve Of Slender Masonry Piers

Yi-Hsuan Tu, Tsung-Hua Chuang

### 15:20-15:50 Coffee Break

### 15:50-17:10 Session D: Steel Connections

Chairman: Prof. Seiji MUKAIDE and Prof. Chin-Tung CHENG

15. Prediction of Fracture of Steel Moment Connection by Cyclic Loading with Varying Deformation Amplitude

Kouhei Takatsuka, Keiichiro Suita and Tsuyoshi Tanaka

- **16.** Prediction of Low-Cycle Fatigue Fracture of Welded Seismic Steel Moment Connections: A Continuum Damage Mechanics Approach Jae-Hoon Kim, Cheol-Ho Lee, Dae-Kyoung Kim and Dong-Guen Lee
- 17. Strength of Self-Drilling Screw Connection used in Steel Framed House Systems Nominal Strength of Hold-Down Component Connection
- Atsushi Sato, Takuya Toriyama, Hisayuki Okada, and Tetsuro Ono
- **18.** Self-centering of Post-tensioned Column Base Cheng-Chih Chen, Huan-Wei Lin and Rung-Shiuan Tsai
- 17:20-18:00 Bus from NCREE to Restaurant
- 18:00-20:30 Banquet at Restaurant

20:30-21:00 Bus from Restaurant to Hotel

### 09:00-10:40 Session E: Reinforced Concrete Connections

Chairman: Prof. Hong-Gun PARK and Prof. Shyh-Jiann HWANG

- **19.** Punching Shear Design Method of KCI 2012 Kyoung-Kyu Choi and Hong-Gun Park
- **20.** Confinement Efficiency of High Strength Steel Fiber in High Strength Concrete Wen-Cheng Liao, Yao-Jen Kuo and En-Jui Liu
- **21.** Structural Behavior of RC Beam-Column Assemblages Subjected to Cyclic Loading Jung-Yoon Lee, Jong-wook Park, and Mohamad Y. Mansour
- **22.** Seismic Strengthening with a New Steel Device for R/C Exterior Beam-Column Joints *Yuebing LI, Yasushi Sanada, Yasuhiro Watanabe and Takuya Tomonaga*
- 23. Collapse Capacity of Steel Moment-Resisting Frames with Hysteretic Energy Dissipating Systems Designed According to ASCE 7-10

Hyung-Joon Kim Dong-Hyeon Shin and Jin-Young Park

10:40-11:00 Coffee Break

### 11:00-12:40 Session F: Seismic Device / Performance /Risk Analysis

Chairman: Prof. Minehiro NISHIYAMA and Prof. Wen-Cheng LIAO

- 24. Hybrid Mass Dampers for Reducing Wind Responses of Buildings Kyung-Won MIN, Jae-Sung Heo, Young-Wook Kim
- **25.** A Leverage-Type Stiffness-Controllable Mass Damper for Vibration Mitigation of Structures Shih-Yu Chu, Lyan-Ywan Lu, Shih-Wei Yeh and Chih-Hua Peng
- 26. Load-Drift Relationship of Dowel Bar in Reinforced Concrete Member Susumu Takahashi, Eiji Anoda, Toshikatsu Ichinose
- **27.** An Experimental Study on Ductile Behavior of Diagrid Structure Yong-Wan Kim, Myoung-Kyu Lee, Tae-jin Kim, and Byung-Min Cho
- **28.** Response-Based Probabilistic Risk Assessment Of Nuclear Power Plants Yin-Nan Huang, Ying-Hsiu Shen, Chang-Ching Chang and Ching-Ching Yu

12:40-13:30 Lunch

13:30-14:00 Closing Session

Prof. Chung-Che CHOU

Prof. Yasushi SANADA

Prof. Cheol-Ho LEE

14:00-17:00 Technical Tour