

**The Ninth Japan-Korea-Taiwan Joint Seminar on Earthquake
Engineering for Building Structures (SEEBUS 2007)
Hsinchu, Taiwan, October 26-27, 2007**

Seminar Program

Friday, October 26

08:00 - 08:30 **Bus from Howard Hotel to NCTU (university)**

08:30 - 08:40 **Registration**

08:40 - 08:50 **Opening Session**

Hiroshi KURAMOTO

Sung-Gul HONG

Cheng-Chih CHEN

08:50 - 10:10 **Session A: Structural Control**

Chairmen: Fumio WATANABE and Shang-Hsien HSIEH

(1) STRUCTURAL CONTROL PERFORMANCE EVALUATION OF AN MR
DAMPER BY REAL-TIME SUBSTRUCTURING TECHNIQUE [P. 1]

Sung-Kyung LEE , Eun Churn PARK, Kyung-Jo YOUN, and Kyung-Won MIN

(2) CONTINUOUS-OPTIMAL-CONTROL WITH VARIABLE GAINS OF A
LARGE-SCALED BASE-ISOLATED STRUCTURE FOR SEISMIC LOADS [P. 11]

Pei-Yang LIN, Tzu-kun LIN, and Jun-Hwa LUI

(3) WIND RESPONSE CONTROL OF A 76-STORY BENCHMARK BUILDING
USING A SMART TUNED MASS DAMPER [P. 21]

Hyun-Su KIM and Dong-Guen LEE

(4) MODEL REFERENCE ADAPTIVE STRUCTURAL CONTROL ON UNCERTAIN
SYSTEMS [P.31]

Shih-Yu CHU and Shih-Chieh LO

10:10 - 10:30 **Coffee Break**

10:30 - 12:10 **Session B: Walls/Precast**

Chairmen: Hiroshi KURAMOTO and Cheol-Ho LEE

- (1) STIFFNESS OF REINFORCED CONCRETE STRUCTURAL WALL WITH IRREGULAR OPENINGS [P.41]
Bing LI
- (2) SHEAR STRENGTH OF COMPOSITE STEEL-CONCRETE WALLS WITH VERTICAL RIBS [P.51]
Sung-Gul HONG, SeungJun LEE, Wonki KIM, and Donghun LEE
- (3) A MULTIPLE MACRO MODEL FOR REINFORCED CONCRETE STRUCTURAL WALLS WITH OPENINGS [P. 63]
Jiyang WANG, Susumu KONO, Masanobu SAKASHITA, and Hitoshi TANAKA
- (4) PREDICTION OF LOAD CARRYING CAPACITY OF PRECAST PRESTRESSED CONCRETE COLUMNS [P.73]
Masanori TANI and Minehiro NISHIYAMA
- (5) DESIGN OF PRECAST CONCRETE BUILDINGS EMULATING MONOLITHIC CONSTRUCTION [P.83]
Fumio WATANABE

12:10 - 13:30 Lunch

13:30 - 15:10 Session C: RC/Retrofit

Chairmen: Hitoshi TANAKA and Shyh-Jiann HWANG

- (1) ANALYTICAL MODEL FOR PREDICTING SHEAR AND DEFORMATION CAPACITIES OF CONCRETE BEAMS UNDER CYCLIC SHEAR [P.93]
Kyoung-Kyu CHOI and Hong-Gun PARK
- (2) IMPROVING SEISMIC BEHAVIOR OF RC INTERIOR BEAM-COLUMN CONNECTIONS WITH HEADED REINFORCEMENT [P.103]
Hung-Jen LEE, Jyun-Yao KANG, and Yi-Jhong LIN
- (3) SEISMIC RETROFIT OF RC STRUCTURES WITH PRESTRESSED CFT AND FRC BRACES [P. 113]
Mamoru ODA, Susumu KONO, and Fumio WATANABE
- (4) EXPERIMENTAL STUDY ON AN INTERLOCKING BLOCK INFILL FOR RETROFITTING EXISTING BUILDINGS [P. 121]
Yasushi SANADA, Naruhito YAMAUCHI, Eri TAKAHASHI, and Yoshiaki NAKANO

- (5) SHAKING TABLE TEST FOR VERIFICATION OF EFFECT OF LONG-PERIOD GROUND MOTION ON FURNITURE AND EXTERNAL WALLS OF HIGH-RISE BUILDINGS [P. 129]

Hideo FUJITANI, Kazuyoshi OHNISHI, Shiro KIDO, Hidenori KAWABE, Takuya NAGAE, Koichi KAJIWARA, Kunio FUKUYAMA, and Masayoshi NAKASHIMA

15:10 - 15:30 Coffee Break

15:30 - 17:30 Session D: Seismic Analysis/Assessment

Chairmen: Dong-Guen LEE and Lyan-Ywan LU

- (1) SEISMIC ANALYSIS OF ASYMMETRIC BUILDINGS UNDER BI-DIRECTIONAL GROUND MOTIONS [P. 137]

Jui-Liang LIN and Keh-Chyuan TSAI

- (2) EVALUATING DEFORMATION DEMANDS FOR SAC BUILDINGS USING NEAR-FAULT RECORDS WITH AND WITHOUT PULSES [P. 147]

Heui-Yung CHANG, Keh-Chyuan TSAI, and Ker-Chun LIN

- (3) CONTROL PERFORMANCE OF FRICTION DAMPERS INSTALLED IN A SHEAR WALL-FRAME SYSTEM [P. 153]

Ji-Hun PARK and Gil-Hwan KIM

- (4) POLYNOMIAL FRICTION PENDULUM ISOLATORS (PFPI) FOR BUILDING STRUCTURES SUBJECTED TO NEAR-FAULT GROUND MOTIONS [P. 167]

Lyan-Ywan LU, Jain WANG, and Shih-Wei YEH

- (5) BRIDGING NCREE-ISEEDB AND UI-SIMCOR FOR HYBRID EARTHQUAKE ENGINEERING SIMULATIONS ACROSS HETEROGENEOUS ENVIRONMENTS [P. 177]

Shang-Hsien HSIEH, Cheng-Tao YANG, Li-Xin LIN, Yuan-Sen YANG, and Keh-Chyuan TSAI

- (6) STRUCTURAL MONITORING SYSTEM FOR A BUILDING STRUCTURE USING WIRELESS MEMS [P. 185]

Hongjin KIM, Whajung KIM, Sang-Hyun LEE, and Jae-Seung HWANG

17:45 - 18:15 Bus from NCTU to Ambassador Hotel

18:30 - 20:30 Banquet at Ambassador Hotel

Saturday, October 27

08:00 - 08:30 **Bus from Howard Hotel to NCTU**

08:30 - 10:10 **Session E: Steel Structures**

Chairmen: Keh-Chyuan TSAI and Sung-Gul HONG

- (1) SIMPLIFIED NONLINEAR STATIC AND DYNAMIC PROGRESSIVE COLLAPSE ANALYSIS OF WELDED STEEL MOMENT FRAMES [P. 195]
Cheol-Ho LEE, Seonwoong KIM, and Kyungkoo LEE
- (2) HYSTERETIC BEHAVIOR OF CONCENTRICALLY BRACED FRAMES BASED ON THE REVIEW OF EXISTING EXPERIMENTAL DATA [P. 205]
Kangmin LEE and Michel BRUNEAU
- (3) CYCLIC TESTING OF STEEL BEAM-TO-COLUMN CONNECTIONS WITH SUPPORTING MEMBERS [P. 217]
Cheng-Chih CHEN, Jen-Fu LO, Yuh-Chyurn DING, Lo MAO, and Chi-Chun TAO
- (4) NUMERICAL STUDY ON COLLAPSE RESISTANCE OF WELDED STEEL MOMENT CONNECTIONS [P. 227]
Taejin KIM and Eun-Suk KIM
- (5) CYCLIC TESTING OF POST-TENSIONED CONNECTIONS INCLUDING EFFECTS OF A COMPOSITE SLAB [P. 237]
Chung-Che CHOU, Yu-Chi WANG, and Jun-Hen CHEN

10:10 - 10:30 **Coffee Break**

10:30 - 12:10 **Session F: Shaking Table Test/Composite**

Chairmen: Taejin KIM and Minehiro NISHIYAMA

- (1) SHAKING TABLE TESTS FOR MASONRY WALLS IN RC FRAMES [P. 247]
Yi-Hsuan TU, Pai-Mei LIU, and Tsung-Hua CHUANG
- (2) FINITE ELEMENT MODEL UPDATING OF SMALL SCALE REINFORCED CONCRETE WALL BUILDING USING SHAKING TABLE TEST RESULTS [P.257]
Ho-Geun KIM, Eunjong YU, Sang-Hyun LEE, Lan CHUNG and Seung-Ho CHO
- (3) SEISMIC PERFORMANCE OF HYBRID SYSTEM WITH CORRUGATED STEEL SHEAR PANEL AND RC FRAME [P. 267]
Susumu KONO, Yukako ICHIOKA, Yoshihiro OHTA, and Fumio WATANABE

(4) STRESS TRANSFERRING MECHANISM OF INTERIOR BEAM-COLUMN JOINTS FOR COMPOSITE CES STRUCTURAL SYSTEM [P. 277]

Tomoya MATSUI and Hiroshi KURAMOTO

(5) INVESTIGATION AND EXAMINATION OF DAMAGE CONDITIONS OF AN OLD REINFORCED CONCRETE SCHOOL BUILDING DUE TO SELF-STRAIN STRESSES [P. 287]

Masaru TERAOKA and Yasuhiro FUKUHARA

12:10 - 13:10 Lunch

13:10 - 13:30 Closing Session

Hiroshi KURAMOTO

Sung-Gul HONG

Cheng-Chih CHEN

13:30 - 17:00 Technical Tour: Visit Ruentex Precast Factory