# 22<sup>nd</sup> SEEBUS



Oct. 15, 2021



# **Opening Session**

#### **Coordinators:**

Prof. Jung-Yoon Lee (Sungkyunkwan Univ., Korea)

Prof. Tzu-Kang Lin (Nat'l Chiao-Tung Univ., Taiwan)

Prof. Atsushi Sato (Nagoya Institute of Technology, Japan)

#### **Zoom Address**

#### Web Address:

https://us02web.zoom.us/j/84741078456?pwd=TVEyU29PU XI2eGRIV0I5K0ZjU0NIdz09

ID: 847 4107 8456

PW: 121886

October 15, 09:00-18:10 (Korea Time)

## 22<sup>nd</sup> SEEBUS Participants, Taiwan



Prof. Tzu Kang LIN



Prof. Shyh-Jiann HWANG



Prof. Lyan-Ywan LU



Prof. Chin-Tung CHENG



Prof. Yu-Chen OU



Mr. NGUYEN Van Bao Nguyen



Prof. Yin-Nan HUANG



Prof. Chien-Kuo CHIU



Prof. Po-Chien HSIAO



Prof. Chui-Hsin CHEN



Prof. Hung-Jen LEE



Prof. Yi-Hsuan TU



Prof. Shih-Yu Joseph CHU



Prof. Cheng-Chan HUNG



Mr. Tuong-Dat-Dinh DO

## 22<sup>nd</sup> SEEBUS Participants, Japan



Prof. Atsushi SATO



Prof. Fumio Watanabe



Mr. Takuro HAYASHI



Mr. Soya NAKATSUKA



Prof. Minahiro NISHIYAMA



Prof. Masanori TANI



Mr. Atsushi SHIBAYAMA



Ms. Yuan LIU



Ms. Sua LIM



Mr. Ryo YAMADA



Prof. Kazuya MITSUI



Mr. Hiroto KAGESAWA



Mr. Tomoki NAKANO



Ms. Hinako MITSUHIRO



Mr. Kumano TAKEHITO



Prof. Susumu KONO



Prof. Taku OBARA



Ms. Meika CHO





Mr. Naresh SUBEDI Ms. Chanipa NETRATTANA Ms. Abdelkader BENYOUCEF



# 22<sup>nd</sup> SEEBUS Participants, Korea



Prof. Jung-Yoon LEE



Mr. Chang Jun BAE



Dr. Yurim CHU



Prof. Tae-Sung EOM





Prof. Sung-Gul HONG Prof. Hyeon-Jong HWANG Mr. Su-Chan JUN





Dr. Chan-Yu JUNG



Prof. Thomas KANG



Dr. Dong-Hwan KIM



Mr. Hyeon-Jin KIM



Dr. Hyeong-Gook KIM



Prof. Kil-Hee KIM



Prof. Sung-Yong KIM



Presi. Tae-Jin KIM



Prof. Chul-Ho LEE



Prof. Decukhang LEE



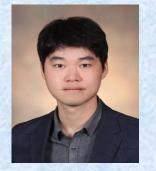
Prof. Dong-Guen LEE



Dr. Yong-Jun LEE



Prof. Hong-Gun PARK



Prof. Jinwon SHIN



Mr. Wei ZHANG

# SEEBUS History

1998 : Prof. Dong-Guen Lee (Sungkyunkwan University, Korea) and Prof. Fumio Watanabe (Kyoto University, Japan) agreed to have a joint seminar on earthquake engineering for building structures

1999: 1st SEEBUS (Seoul, Korea and Japan)

2000: 2<sup>nd</sup> SEEBUS (Kyoto, Japan and Korea)

2001: 3<sup>rd</sup> SEEBUS (Taipei, Taiwan, Japan, and Korea)

2019: 21st SEEBUS (Hsinchu, Taiwan)

2020: No SEEBUS

2021 : 22<sup>nd</sup> SEEBUS (Suwon, Korea)



#### 22<sup>nd</sup> SEEBUS

1. Conference duration (One day conference)

Conference time. 9:00 – 18:10 (Korea and Japan time)

8:00 – 17:10 (Taiwan time)

Total participants: 58, presentations: 29

Each speaker will have 14 mins. (10 mins. for presentation and 4 mins. for discussion)

2. Sessions are divided by country (J-1,2, T-1,2, K-1,2)

# 22<sup>nd</sup> SEEBUS: Program

*9:00-9:20 (8:00-8:20)	<b>Opening Session</b>	
9:20-10:30 (8:20-9:30)	Session J1	5 Presenters
		(Chairs: Prof. Susumu Kono, Prof. Taku Obara)
10:30-11:25 (9:30-10:25)	Session T1	4 Presenters
		(Chairs: Prof. Yu-Chen OU, Prof. Po-Chien HSIAO)
11:25-11:40 (10:25-10:40)	Group Photo and Coffee Break	
11:40-12:35 (10:40-11:35)	Session K1	4 Presenters
		(Chairs: Prof. Thomas Kang, Prof. Jinwon Shin)
12:35-13:40 (11:35-12:40)	Lunch	
13:40-15:05 (12:40-14:05)	Session J2	6 Presenters
		(Chairs: Prof. Masanori Tani, Prof. Atsushi Sato)
15:05-16:15 (14:05-15:15)	Session T2	5 Presenters
		(Chairs: Prof. Yin-Nan Huang, Prof. Chung-Chan HUNG)
16:15-16:30 (15:15-15:30)	Coffee Break	
16:30-17:40 (15:30-16:40)	Session K2	5 Presenters
		(Chairs: Prof. Tae-Sung EOM, Prof. Sung-Yong Kim)
17:40-18:10 (16:40-17:10)	Closing Session	

\* : Korea and Japan time, ( ) : Taiwan time

#### How to use Zoom



- 1. Always turn on webcam.
- 2. Always turn off microphone
  Unmute microphone when you present your paper/when you have comments or questions.
- 3. Use the microphone if you have any questions or comments. (or you may text in the chat room)
- 4. Share screen when you present your paper.
  After your presentation, please stop sharing your presentation material.

#### J-1

Chairs: Prof. Susumu Kono, Tokyo Institute of Technology, Prof. Taku Obara, Tokyo Institute of Technology

9:20-10:30	Session J-1	Evaluation of Structural Performance of Unbonded Post-tensioned Precast Concrete Walls		
		Presenter: Meika CHO (Tokyo Institute of Technology)		
(8:20-9:30)		Cyclic Loading Tests on Reinforced Concrete Columns Strengthened with UFC Panels		
		Presenter: Sua LIM (Kyoto University)		
		Mathematical Modeling of Steel Beam-Column under Compressive Axial Force with One End		
		Monotonic Moment		
		Presenter: Soya NAKATSUKA (Nagoya Institution of Technology)		
		Buckling Strength and Buckling Behavior of I-Shaped Beams with Continuous Lateral Restraints on		
		Upper Flange		
	Presenter: Hiroto KAGESAWA (Tokyo Institute of Technology)			
		Buckling Strength Evaluation Method of Plate on Elastic Foundation and Its Application to		
		Sandwich Panels		
		Presenter: Hinako MITSUHIRO (Tokyo Institute of Technology)		

#### **T-1**

Chairs: Prof. Yu-Chen OU, National Taiwan University,

Prof. Po-Chien HSIAO, National Taiwan University of Science and Technology

10:30-11:25	Session T-1	Seismic Retrofitting of Masonry-Infilled RC Frames Using UHPC Shotcrete
		Presenter: Tuong-Dat-Dinh DO (National Cheng Kung University)
(9:30-10:25)		Seismic Shear Behavior of High-Strength Reinforced Concrete Column-Eccentric Steel Beam
		Joints
		Presenter: Yu-Chen OU (National Taiwan University)
		Loading Tests for RC Frames Retrofitted by Attaching Steel Members
		Presenter: Yi-Hsuan TU (National Cheng Kung University)
		Preliminary Seismic Assessment for Low-Rise RC Building Structures Including Corrosion-
		Induced Deterioration
		Presenter: Chien-Kuo CHIU (National Taiwan University of Science and Technology)

# **Group Photo**

11:25-11:40 (10:25-10:40)

Keep the webcam on

#### K-1

Chairs: Prof. Thomas Kang, Seoul National University,

Prof. Jinwon Shin, Catholic Kwandong University

11:40-12:35	Session K-1	Nonlinear Modeling Parameters of Reinforced Concrete Coupling Beams
(10:40-11:35)		Presenter: Tae-Sung EOM (Dankook University) Seismic Performance and Strategic Design Method of Precast Intermediate Shear Wall Presenter: Decukhang (DK) LEE (Chungbuk National University)
		Evaluation of Torsional Strength of Reinforced Concrete Beams Subjected to Bending,
		Shear and Torsion
		Presenter: Dong-Hwan KIM (Kongju National University)
		Plastic Hinge Model of Beam-Column Joints
		Presenter: Hyeon-Jong HWANG (Konkuk University)

### Lunch

12:35-13:40

(11:35-12:40)

### **J-2**

Chairs: Prof. Masanori Tani, Kyoto University,

Prof. Atsushi Sato, Nagoya Institute of Technology

13:40-15:05	Session J-2	Flexural Response Simulation of Cast-in-Place Concrete-Filled Steel Tube Piles
		Presenter: Naresh SUBEDI (Tokyo Institute of Technology)
(12:40-14:05)		Distortional Buckling of Cold-Formed Channel Member under Compression
		Presenter: Kazuya MITSUI (Tokyo Institute of Technology)
		Experimental Study of the Beam-Column with Different Width-to-Thickness Ratio
		Presenter: Takuro HAYASHI (Nagoya Institute of Technology)
		Theoretical Analysis of Elastic Local Buckling for H-Shaped Beams Subjected to End Moments and Uniformly Distributed Load
		Presenter: Tomoki NAKANO (Tokyo Institute of Technology)
		Base Isolation and Mid-story Concentrated Vibration Control System
		Presenter: Takehito KUMANO (Kyushu branch, Takenaka Corporation)
		Analytical Investigation into Seismic Performance of Induction-Heated Curved Brace
		Presenter: Yuan LIU (Kyoto University)

#### **T-2**

Chairs: Prof. Yin-Nan Huang, National Taiwan University,

Prof. Chung-Chan HUNG, National Cheng Kung University

15:05-16:15	Session T-2	In-Plane Cyclic Behavior of Shear-Critical Steel-Plate Composite Walls with Axial Loading	
		Presenter: Yin-Nan HUANG (National Taiwan University)	
(14:05-15:15)		Finite Element Analysis of Hollow Square Steel Brace with Infill Reinforcement under Cyclic	
(1100 2002)		Loading	
		Presenter: Chui-Hsin CHEN (National Yang Ming Chiao Tung University)	
		Seismic Behavior of Low-Yield Steel and Concrete Composite Shear Walls Subjected to	
		Earthquake-Type Loading	
		Presenter: Chin-Tung CHENG (National Kaohsiung University of Science and Technology)	
		Prediction of Smooth Hysteretic Model Parameters Using Support Vector Regression	
		Presenter: Tzu-Kang LIN (National Chiao-Tung University)	
		Experimental Development of Cored Moment Resisting Stub-Column Dampers	
		Presenter: Po-Chien HSIAO (National Taiwan University)	

#### Coffee Break

16:15-16:30

(15:15-15:30)

#### K-2

Chairs: Prof. Tae-Sung Eom, Dankook University,

Prof. Sung-Yong Kim, Changwon National University

ĕ	16:30-17:40	Session K-2	Flexural and Shear Strengths of Composite Walls with Boundary Elements of Steel U-Section	
3			Presenter: Hyeon-Jin KIM (Seoul National University)	
	(15:30-16:40)		Head-Restraining Reinforcement in Knee Joints Subject to Reversed Cyclic Loading	
į			Presenter: Thomas HK. KANG (Seoul National University)	
ĕ			Shake Table Testing of Braced and Friction-Added Suspended Ceiling Systems	
ğ			Presenter: Su-Chan JUN (Seoul National University)	
			Structural Identification of Strength Degrading Hysteresis Using Nondimensionalized Bouc-Wen Model	
j			Presenter: Sung-Yong KIM (Changwon National University)	
Š			Seismic Design of Non-Structural Elements in Negative Pressure Wards	
Š			Presenter: Jinwon Shin (Catholic Kwandong University)	

# **Closing Session**

- 1. Sungkyunkwan University
- 2. Sponsor (Smart Natural Space Research Centre, Kongju National University)
- 3. The 22<sup>nd</sup> SEEBUS Best Paper Award Ceremony
- 4. Next SEEBUS announcement

#### **Coordinators:**

Prof. Jung-Yoon Lee (Sungkyunkwan Univ., Korea)

Prof. Tzu-Kang Lin (Nat'l Chiao-Tung Univ., Taiwan)

Prof. Atsushi Sato (Nagoya Institute of Technology, Japan)

#### SEEBUS 2021

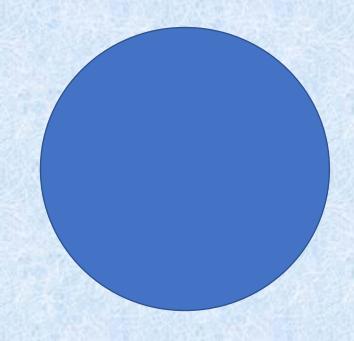
#### **Best Paper Award**

Name

**Position** 

**Organization** 

**Title of Paper** 





# Sungkyunkwan University





Since 1398: at the beginning of the Joseon Dynasty.

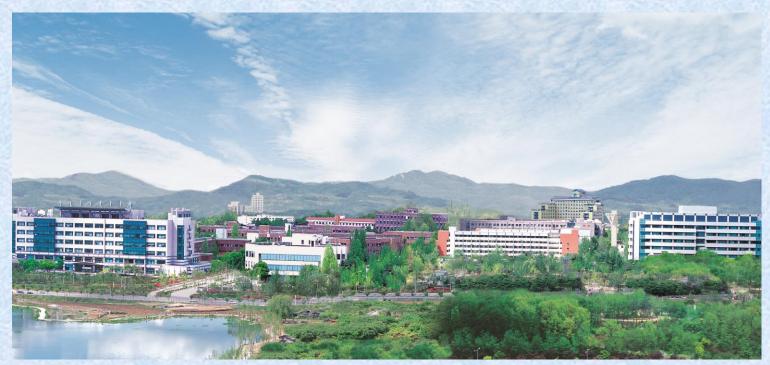
Sungkyunkwan University is a university with 622 years of glorious history and shining tradition.



# Sungkyunkwan University



**Humanities and Social Sciences Campus(Seoul)** 



**Natural Sciences Campus(Suwon)** 

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#### **SEEBUS 2021**

#### supported by



School of Civil, Architectural Engineering and Landscape Architecture, Sungkyunkwan University



Smart Natural Space Research Centre, Kongju National University