Program on Open Innovation Platform with Enterprises, Research Institute and academia, OPERA

Consortium for Socio-Functional Continuity Technology (SOFTech)

## **To prevent urban disaster!**

# SOFTech Workshop for Young Researchers 2019



The Consortium for Socio-Functional Continuity Technology (SOFTech) was launched in the fall of 2017 to develop technology to ensure continuity of essential functions performed in high-rise buildings and other urban structures following a major natural disaster.

This project was adopted by the Program on Open Innovation Platform with Enterprises, Research Institute and Academia (OPERA) as a Target-Driven R&D Project by the Japan Science and Technology Agency (JST). SOFTech comprises members from Tokyo Tech, Tohoku University, the University of Tokyo, Kobe University, and partners from industry.

The aim of the workshop is to bring together young researchers around the Asia to present, share and discuss their researches related to urban disaster prevention.



21 young researchers will present their researches in this workshop. We welcome all interested visitors!!

If you want to participate in the workshop, please email your name and affliation to SOFTech office(softech@softech.titech.ac.jp).



Contact : SOFTech Office, Institute of Innovative Research(IIR), Tokyo Institute of technology e-mail: softech@softech.titech.ac.jp Phone : 045-924-5290 HP: http://www.softech.titech.ac.jp/index\_en.html

### Workshop Program



#### Opening address: Meeting Room1 14:00 $\sim$ Satoshi Yamada

#### Session 1: Meeting Room1 14:10 $\sim$ Chair: Qiqi Li, Xu Xi

A shake table test on the seismic damage characteristics of gypsum board suspended ceilings Qiqi Li Institute of Engineering Mechanics (China)

Seismic Response Spectrum Rule for Non-structural Components in Buildings Shingo Komatsu Tokyo Institute of Technology

Dynamic loading protocol for experiments of non-structural components considering the seismic response characteristics of building structures Yuteng Cao Institute of Engineering Mechanics (China)

Visibility Estimation Using Contrasts of LMS Stimulus Values Expecting Color Universal Design Yoko Kato Tokyo Institute of Technology

Application of membrane-structure roof for privately owned public open space around high-rise buildings during disaster and normal conditions Xi Xu Tokyo Institute of Technology

#### Session 2: Meeting Room1 15:40~ Chair: Paolo Ian Lucero, Mingyu Meng

Prediction of unsteady pressure around buildings on terrain by LES Mingyu Meng Tokyo Institute of Technology

People Counting using Multiple Time of Flight Sensors Eric Christopher Tokyo Institute of Technology

On the Resilience of Philippine Transport Systems: The Case of Ninoy Aquino International Airport (NAIA) Paolo Ian Lucero De La Salle University (Philippines)

Indices for Evaluating Emergency Vehicle Accessibility after a Large EarthquakeMaki KishimotoTokyo Institute of Technology

Seismic Resilience Quantification of Local Water Distribution Networks Richard M.de Jesus De La Salle University (Philippines)

#### Session 3: Meeting Room2 14:10~ Chair: Ammiel Mac A. Barros, Kou Miyamoto

Analysis of a Full-Scale Multi-Layered Viscoelastic Damper Considering Heat Generation and Transfer Dave M. Osabel Tokyo Institute of Technology

Tuned Viscous Mass Damper (TVMD) Coupled Wall System for Enhancing Seismic Performance of High-Rise Buildings Yuhao Cheng Tsinghua University (China)

New modeling method for equivalent bending shear model Kazuki Watai Tokyo Institute of Technology

Damage Detection in a Three-Dimensional Tower Model Using Modal Correlation Coefficient Algorithm Ammiel Mac A. Barros University of the Philippines (Philippines)

A new active structural control strategy based on equivalent input disturbance Kou Miyamoto Tokyo Institute of Technology

#### Session 4: Meeting Room2 15:40~ Chair: Kristian Azul, Tenderan Randy

Characteristics of horizontal particle motions from the 2004 off the Kii Peninsula earthquake on large sedimentary basins in Japan Andi Muhamad Pramatadie Tokyo Institute of Technology

Simulation of October 15, 2013 M7.2 Bohol Earthquake with Analyses Focused on Response Spectrum Comparison Kristian Azul University of the Philippines (Philippines)

Investigation on Ferro-cement laminated infilled masonry wall under cyclic lateral load Debasish Sen Tohoku University

Study on shear strength of disk shear-key under combined stress Yutaro Ishida Tokyo Institute of Technology

Visual Rating method for seismic evaluation of RC buildings with masonry infill Md Shafiul Islam Tohoku University

Evaluation method of cyclic deformation capacity of beam-to-column connection determined by ductile fracture Randy Tenderan Tokyo Institute of Technology

#### Networking Session: Lounge $17:30\sim$