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

Consortium for Socio-Functional Continuity Technology (SOFTech)

SOFTech Workshop for Young Researchers 2020

To prevent urban disaster!

Feb 13(Thr), 2020

Venue : Tokyo Institute of Technology
Suzukakedai campus
4259 Nagatsuta-cho, Midori-ku, Yokohama, Kanagawa 226-8503 JAPAN

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 from around the Asia to present, share and discuss their researches related to urban disaster prevention.

Submission Deadlines
January 31th, 2020
Extended Abstract (2pages)

The workshop will be held in English.
Travel expenses will be paid.

SOFTech Five areas of research and development

SOFTech
OPERA
Tokyo Tech

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Workshop Program

Opening remarks: Meeting Room 1 13:15〜13:30 Prof. Satoshi Yamada

Session 1: Meeting Room 1 13:30〜 Chair: Shreya Thusoo and Aleksey Shegay

Performance Evaluation of Post-tensioned Hybrid Precast Wall Buildings under Short and Long Duration Ground Motions
Subedi Naresh Tokyo Institute of Technology

Experimental study on the residual seismic capacity of RC squat walls
Hamood Al-washali Tohoku University

Development of numerical models for steel-encased high-strength concrete piles
Shreya Thusoo Tokyo Institute of Technology

A proposal of judgement criteria for detailed seismic evaluation of existing RC buildings in Bangladesh
Shafiul Islam Tohoku University

Experimental and Numerical Study on Flexural Structural Reinforced Concrete Walls under High Axial Load
Netrattana Chanipa Tokyo Institute of Technology

Damage progression of a 4-storey frame-wall RC building subjected to shake-table excitation
Aleksey Shegay Tohoku University

Seismic Retrofit of RC Buildings using Elasto-Plastic Dampers with Elastic Steel Frame in Moderate Seismic Region
Panumas SAINGAM Tokyo Institute of Technology

15:30 – 15:50 Break

Session 2: Meeting Room 1 15:50〜 Chair: Shotaro Nakada and Debasish Sen

Structural Behavior of Bolted Joints in Metal Construction
Miku Kurosawa Tokyo Institute of Technology

Experimental Study on Full-Scale Steel Moment-Resisting Frame Subjected to Multiple Earthquakes
Randy Tenderan Tokyo Institute of Technology

Seismic Repair to Exposed Column Base - Residual Strength after Cone Failure –
Shotaro Nakada Tokyo Institute of Technology

Review on the effect of openings on the structural performance of RC wall based on past experimental results
Zasiah Tafeen Tohoku University

Investigation on ferro-cement laminated masonry infilled RC frame and capacity evaluation
Debasish Sen Tohoku University

Influence of openings on the shear strength and stiffness of cross-laminated timber panels
Ahmed Ghazi Al Jehmani Tohoku University

Session 3: Meeting Room 2 13:30～ Chair: Tomomi Miyata and Qian Xiaoxin

Extracting Vulnerable Accessibility Roadside Areas after a Large Earthquake
Maki Kishimoto Tokyo Institute of Technology

Evaluation of Visual Business Continuity in Office using equal Luminance Virtual Reality Images
Tomomi Miyata Tokyo Institute of Technology

Estimation method on thermophysical properties of the building surface based on multi-spectral remote sensing and surface energy simulation
Xu Xi Tokyo Institute of Technology

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

Influence of Frequency Sensitivity on Energy Dissipated in VE damper Subjected to Wind Force
Chang, Ting-Wei Tokyo Institute of Technology

Seismic Responses of Seismically Isolated Buildings Considering Wind-Induced Residual Deformation in Isolation Layer
Qian Xiaoxin Tokyo Institute of Technology

15:30 – 15:50 Break

Session 4: Meeting Room 2 15:50～ Chair: Ben Sitler and Socio Jiwapatria

Effects of Rigid Zone Determination at Beam-Column Connection on the Inelastic Behaviour of BRB Frame
Naomi Pratiwi Bandung Institute of Technology（Indonesia）

Design concept for multistage buckling-restrained braces
Ben Sitler Tokyo Institute of Technology

Energy Distribution of Nonlinear Viscous Dampers in the Height Direction of High-rise Building
Liu Xiyuan Tokyo Institute of Technology

Full-Scale Viscoelastic Damper under Long-Duration Loading: Experiment and Performance Evaluation
Dave M. Osabel Tokyo Institute of Technology

Application of Active Control System on the Seismic Response to Unreinforced Masonry Structure
Socio Jiwapatria Bandung Institute of Technology（Indonesia）

Seismic response control of higher modes of long-span domes using 2-segmented spine frames
Deepshikha Nair Tokyo Institute of Technology

Networking Session: Lounge 18:00～20:00 (Lounge)