Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

ETH Zurich–Japan Joint Symposium on Earthquake Engineering 2019

2 – 4 December 2019

ETH Zurich, Switzerland

Schedule

Coordinator: Prof. Dr. I. Anastasopoulos

Institut für Geotechnik
Institute for Geotechnical Engineering

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Detailed Schedule

Monday, 2 December 2019 (HIL C 10.2)

12:30 **Registration**

13:00 **Welcome & Introduction**
Prof. Ioannis Anastasopoulos, ETH Zurich

Opening Address
Prof. Junji Kiyono, Kyoto University

13:20 **Session 1** (Chair: Prof. Ioannis Anastasopoulos)

- 13:20 Prof. Junji Kiyono, Kyoto University
  Vehicle Behavior on Highway Bridge during an Earthquake
- 13:40 Prof. Bozidar Stojadinovic, ETH Zurich
  Modelling Post-Earthquake Recovery of Civil Infrastructure Systems and Communities
- 14:00 Prof. Fumio Yamazaki, Chiba University
  Development of fragility curves of Japanese buildings based on the 2016 Kumamoto earthquake
- 14:20 Prof. Katrin Beyer, EPFL
  Seismic assessment of stone masonry buildings – from shake table tests of entire buildings to detailed micro-models of isolated elements
- 14:40 Prof. Hisakazu Sakai, Hosei University
  Development of SPH-DEM Coupling Method for Seismic Simulation of Stone Masonry Wall

15:00 **Coffee Break**

15:20 **Session 2** (Chair: Prof. Junji Kiyono)

- 15:20 Prof. Michalis Vassiliou, ETH Zurich
  Statistical validation of structural models in Earthquake Engineering: From rocking blocks to 3D printed small scale structures
- 15:40 Prof. Takao Hashimoto, Kokushikan University
  Analysis of damage to stone walls in Kumamoto Castle by the 2016 Kumamoto earthquake, and results of large shaking table test
- 16:00 Dr. Andreas Stoecklin, ETH Zurich
  Sedimentation, seismic triggering and post-failure evolution submarine landslides
- 16:20 Dr. Toshikazu Ikemoto, Kanazawa University
  Collapse behavior of the castle's stone masonry during the 2016 Kumamoto earthquake
- 16:40 Dr. Thomas Weber, ETH Zurich, Studer Engineering
  Marmorera Dam Case Study - Identification of dynamic soil properties for earthquake safety assessment

17:00 **Lab tour**

18:14 **ETH Link to Hotel Bristol (Haldenegg)**

20:00 **Dinner at Zeughauskeller**

Tuesday, 3 December 2019 (HIL B 18.2)

09:00 **Session 3** (Chair: Dr. Orestis Adamidis)

- 09:00 Prof. Masakatsu Miyajima, Kanazawa University
  Geodisasters induced by the 2018 Sulawesi Island Earthquake in Indonesia
- 09:20 Prof. Dimitrios Lignos, EPFL
  Research on seismic resistant steel and composite structures with emphasis on collapse
- 09:40 Prof. Takanobu Suzuki, Toyo University
  Response properties of strong ground motion in epicenter region
- 10:00 Dr. Alexandru Marin, ETH Zurich
  Widening of existing bridges: Pile group retrofit vs. plastic design
- 10:20 Lampros Sakellariadis, ETH Zurich
  Kobe 1995 Fukae bridge collapse: actual pilegroup vs. nonlinear SSI

10:30 **Coffee Break**

11:00 **Session 4** (Chair: Prof. Hisakazu Sakai)

- 11:00 Prof. Tetsuo Tobita, Kansai University
  LEAP-ASIA-2019: Validation of centrifuge experiments and generalized scaling law on liquefaction-induced lateral spreading
- 11:20 Dr. Orestis Adamidis, ETH Zurich
  Liquefaction susceptibility under constant inflow rate
- 11:40 Prof. Masaho Yoshida, National Institute of Technology, Fukui College
  Study on liquefaction countermeasure technique using logs based on field investigation and shaking table test
- 12:00 Kostas Kassas, ETH Zurich
  Numerical modelling of a structure with shallow strip foundation during earthquake-induced liquefaction
- 12:10 Liam Jones, ETH Zurich
  Physical modelling of geotechnical systems exposed to extreme hydraulic events

12:20 **Lunch Break**

14:00 **Session 5** (Chair: Dr. Alexandru Marin)

- 14:00 Max Sieber, ETH Zurich
  Unconventional foundation design: simplified methods for rocking isolation
- 14:10 Weifeng Wu, ETH Zurich, Tongji University
  Experimental and numerical study on seismic behavior of subway station structures in Shanghai, China
- 14:20 Prof. Maki Koyama, Gifu University
  Rescue Operations at Collapsed Houses in the 2016 Kumamoto Earthquake, Japan
- 14:40 Athanasios Agalianos, ETH Zurich
  Experimental study of the interaction of slab foundations with emerging strike-slip faults on dense sand
- 14:50 Simone Alber, ETH Zurich
  Geotechnical applications for 3D printed granular media

15:00 Prof. Aiko Furukawa, Kyoto University
Proposal of tension estimation technique for a cable with a damper using natural frequencies

15:20 Prof. Ioannis Anastasopoulos, ETH Zurich
Design against faulting: new developments

15:40 **Discussion and final remarks**

16:00 **Photo Session and Closure**

Wednesday, 4 December 2019 (HIL B 18.2)

10:00 **Meeting on Future Research Collaboration**

12:00 **Lunch Break**

13:00 **Optional Tour: Construction Site Visit: HIF Extension**