



Third DeansqForum Workshop on Resilience Engineering

School of Engineering, The University of Tokyo

November 30 – December 1, 2015

The University of Tokyo, Hongo Campus

Synopsis

The Deans' Forum Workshop on Resilience Engineering was initiated in 2012 as a forum to pursue collaboration among the member universities in the research and education of resilience engineering. The first workshop was organized by The University of Tokyo and contributed to sharing participants' understanding on the concept and perspective of resilience engineering. The second workshop was held in Paris at MINES ParisTech in 2013. The workshop was dedicated to an assessment of the state of the art in resilience engineering research as well as education. University of California, Berkeley and MINES ParisTech co-organized another related workshop, The International Workshop on Nuclear Safety, this March in Berkeley to provide a venue for discussing technical and social issues after the Fukushima Daiichi nuclear accident.

Following the success of these past workshops, the third workshop will provide a forum for presenting and discussing application examples of resilience engineering to a wide range of industrial, civil, and social sectors as well as educational experiences. The workshop will also be an opportunity for representatives from the member universities to meet, exchange ideas and gain insights from each other.

Workshop schedule

The first day of the workshop will be devoted to presenting the progress in resilience engineering research and education. Representatives of the member universities are asked to present the outcomes of their efforts in theoretical, computational and practical approaches of resilience engineering. Social issues in implementing the outcomes under sociotechnical contexts will be also discussed.

The second day of the workshop will be dedicated first to group works for extracting concrete ideas useful for promoting collaboration of the member universities in both research and education. After the group work session, the possibilities of collaborative research projects and education programs will be discussed in the plenary session.

Students' poster session

We are planning to have students' poster session in parallel with the workshop dinner on the first day of the workshop. The most excellent poster will be awarded.

Program

November 30 (Mon.) Building #8 Faculty Meeting Room

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| 9:00 – 9:15 | Opening and Welcome Remarks
Prof. Mamoru Mitsuishi (The University of Tokyo) |
| 9:15 – 9:45 | Resilience engineering: what we know, what we did, what we do and what we will do?
Prof. Franck Guarnieri (MINES ParisTech) |
| 9:45 – 10:15 | A discussion of recent research on vulnerability and resilience of transport systems
Prof. Lars-Göran Mattsson (KTH Royal Institute of Technology) |
| 10:15 – 10:30 | Coffee Break |
| 10:30 – 11:00 | What if: How the Resilience Works
Prof. Akira Yamaguchi (The University of Tokyo) |
| 11:00 – 11:30 | Resilience: A new paradigm of nuclear safety
Prof. Joonhong Ahn (University of California, Berkeley) |
| 11:30 – 12:00 | Social regulations facing extreme situations
Prof. Christophe Martin (MINES ParisTech) |
| 12:00 – 12:30 | Institutional Challenges for Building and Maintaining A Secure and Resilient Japan
Prof. Taketoshi Taniguchi (The University of Tokyo) |
| 12:30 – 13:30 | Lunch Break |

- 13:30 – 14:00 Resilience of the Interdependent Energy Infrastructure
Prof. Giovanni Sansavini (ETH Zurich)
- 14:00 – 14:30 Urban Resilience Modelling using Network Flows
Dr. Panagiotis Angeloudis (Imperial College London)
- 14:30 – 15:00 Challenges in Integrated Disaster Mitigation Strategies
Prof. Yoshimitsu Tajima (The University of Tokyo)
- 15:00 – 15:15 Coffee Break
- 15:15 – 15:45 The Future Vision of Resilience by Cognitive Computing
Dr. Takeshi Fukuda (IBM Research – Tokyo)
- 15:45 – 16:15 Public transport network vulnerability analysis: Disruption impacts and mitigation strategies
Prof. Erik Jenelius (KTH Royal Institute of Technology)
- 16:15 – 16:45 Human-Centered Interdependency Analysis of Critical Infrastructure
Prof. Kazuo Furuta (The University of Tokyo)
- 16:45 – 17:15 The Extreme Situation: a Theoretical Framework to Articulate Management and Resilience
Prof. Sébastien Travadel (MINES ParisTech)
- 17:30 – 20:00 Students' Poster Session (Building #3 Room 423/424)

December 1 (Tue.)

Morning Session Building #8 Room 226

- 9:00 – 10:00 Instruction on IMDJ
Prof. Yukio Ohsawa (The University of Tokyo)
- 10:00 – 12:00 Group Work Session
- 12:00 – 13:00 Lunch Break

Afternoon Session Building #8 Faculty Meeting Room

13:00 – 13:30 Summary of the Group Work Session

13:30 – 14:50 Wrap-up Discussion

14:50 – 15:00 Closing

Prof. Shinobu Yoshimura (The University of Tokyo)

More information

Contact: Kazuo FURUTA, Professor

Resilience Engineering Research Center

School of Engineering, The University of Tokyo

furuta@rerc.t.u-tokyo.ac.jp