

Resilience Workshop

~Technologies and their social implementation to actualize lithe disaster prevention/mitigation~

Date March 16, 2015, 9:30~17:30

Venue Symposium: Kawauchi-Kita Campus, B101

Technology demonstrations and panel exhibition: Kawauchi-Kita Campus, A307

Organizers International Research Institute of Disaster Science (IRIDeS), Tohoku University

Institute of Fluid Science (IFS), Tohoku University

IBM Research – Tokyo

Auspices Kobe City, Japan Science and Technology Agency (JST), KAHOKU SHIMPO PUBLISHING CO.,

Tohoku Electric Power Co., Inc., International Rescue System Institute, The Center of Robotics for

Extreme and Uncertain Environments (CREATE), Core Technology Consortium for Advanced

Energy Devices

Participation fee : Free

Summary

Japan and many countries all over the world are expected to construct disaster-resilient societies in various levels such as individuals and autonomous communities after the Great East Japan Earthquake on March 11, 2011. Research areas in social science, humanities and natural science to realize the resilience with the use of high technology, implying that we robustly and lithely face a variety of natural disasters, have recently been highly developed. In this context, we will organize an industry-academia-government-citizen collaborative workshop to enjoy the fruits of research for disaster prevention and mitigation with a view to the actualization of resilient societies and make a suggestion for the future, in conjunction with the Third UN World Conference on Disaster Risk Reduction 2015, which will be held in Sendai on 14-18th March. Also, we also provide some demos such as Tsunami Simulation and RoboCup Rescue to complement oral presentations.

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Webpage http://www.cae.civil.tohoku.ac.jp/resilience/index_en.html

Technology demonstrations and panel exhibition

Disaster Response System (IBM Japan) / Disaster Management Simulation (IBM Research - Tokyo) / Tsunami Simulation Technology (Tohoku University) / Michinoku-Shinrokuden (Tohoku University) / self-contained energy system (Tohoku University) / Disaster-Resistant Robot-Quince (Tohoku University) / Disaster Big-data (NHK) / Disaster Archives (KAHOKU SHIMPO PUBLISHING CO.) / Electric Paper Technology (TOPPAN PRINTING CO. LTD.) / 3D Visualization Technology (Cristie Digital Systems Inc.)

- Time schedule** [MC: Akiko Murakami (IBM Research - Tokyo)]
- 9:45 ~ 9:50 Opening address: Kenjiro Terada (Professor, IRIDeS, Tohoku University)
- 9:50 ~ 10:30 [Keynote Lecture 1] Jun-ichi Sato
(President, The Japan Federation of Engineering Societies / Advisor, IHI)
Lesson Learned for the Resilience of Machinery and Energy Systems
- 10:30 ~ 10:50 [General Lecture 1] Seiji Samukawa (Professor, IFS, Tohoku University)
Challenges to Innovative Energy
=Trial of the Innovative Energy Research Center Tohoku University=
- 10:50 ~ 11:00 (Break)
- 11:00 ~ 11:20 [General Lecture 2] Kazuya Yoshida
(Professor, Faculty of Engineering, Tohoku University)
Research on Challenging Robotics Technology for Disaster Response
- 11:20 ~ 11:40 [General Lecture 3] Norishige Morimoto (Director, IBM Research - Tokyo)
The Future Vision of Resilience by Cognitive Computing
- 11:40 ~ 12:00 [General Lecture 4] Makoto Okumura (Vice-Director/Professor,
IRIDeS, Tohoku University)
Interdisciplinary Research in International Research Institute
- 12:00 ~ 13:00 (Lunch break)
- 13:00 ~ 14:00 [Keynote Lecture 2]
Erick Hollnagel (Professor at the University of Southern Denmark/
Chief Consultant at the Centre for Quality Improvement,
Region of Southern Denmark)
The Resilience Engineering Approach to Societal Readiness
- 14:00 ~ 14:10 (Break)
- 14:10 ~ 14:30 [Invited Lecture 1] Noriyoshi Tsuchiya
(Professor, Graduate School of Environmental Studies,
Tohoku University)
Geothermal Energy as a Resilient and Sustainable Energy
- 14:30 ~ 14:50 [Invited Lecture 2] Akira Doi (Corporate Officer, Kokusai Kogyo Co., Ltd.)
Building resilient towns "Green Community Tagonishi"
- 14:50 ~ 15:10 [Invited Lecture 3] Motoaki Sugiura (Associate Professor, Institute of Development,
Aging and Cancer, Tohoku University)
Identification and Measurement of the Factors of Power to Live
- 15:10 ~ 15:30 [General Lecture 5] Hideo Watanabe (Division Manager, IBM Research - Tokyo)
IBM's World-Wide Activities on Resilience
- 15:30 ~ 15:40 (Break)
- 15:40 ~ 17:30 [Panel Discussion]

Theme "Essence of resilience: Science and technology
carried with communications among various specialists and citizens"

Moderator: Makoto Okumura (Vice-Director/Professor, IRIDeS, Tohoku University)

Panelists (alphabetical order):

1. Keiko Itabashi (Producer of FM Sendai, Disaster Prevention/Mitigation)
2. Rieko Fujita (President, Atomic Energy Society of Japan / JST)
3. Tetsuya Muroyama (Member, News Commentators Bureau, NHK)
4. Akira Sakakibara (Technical Administrator/CTO-Smarter Cities, IBM Japan)
5. Jun-ichi Sato (President, The Japan Federation of Engineering Societies, IHI)
6. Makoto Takahashi (Professor, Faculty of Engineering, Tohoku University)