

Report

Theme		Kyoto University-University of Leeds International Symposium: Advanced Engineering for Natural Disaster Identification, Mitigation, Prevention and Response
Date		September 17–19, 2018 (3 Days)
Organizing faculty/department		Graduate School of Engineering
Cooperating faculty/department(s)		Graduate School of Informatics, Graduate School of Education, Disaster Prevention Research Institute, Graduate School of Global Environmental Studies, Graduate School of Management
Place	Country	United Kingdom
	City	Leeds
	Venue	Weetwood hall http://www.weetwood.co.uk/
Co-organizers		Faculty of Engineering, University of Leeds
Symposium summary		<p>The University of Leeds and Kyoto University been engaged in academic and student exchange activities through RENKEI, a network of twelve universities in the UK and Japan, and through formal collaboration agreements between the two institutions that were concluded in 2016. The University of Leeds-Kyoto University International Symposium “Advanced Engineering for Natural Disaster Identification, Mitigation, Prevention and Response” was held in Leeds on 17–19 September, 2018 with the aim of promotin collaboration and exchange between the two institutions’ graduate schools of engineering. The participants from Kyoto University comprised Executive Vice-President Kayo Inaba, eighteen faculty members, one university research administrator and a staff member for international affairs. The delegation were able to successfully travel to the UK to participate in the symposium despite severe travel difficulties caused by Typhoon Jebi, including the closure of Kansai International Airport.</p> <p>On the first day of the symposium, Dr. Hai-Sui Yu, deputy-vice-chancellor international of the University of Leeds and Executive Vice-President Inaba, of Kyoto University delivered opening addresses. Following that, Dr. Raul Fuentes, pro dean (international) of the Faculty of Engineering of the University of Leeds and Prof Tetsuo Sawaragi, vice-dean of the Graduate School of Engineering of Kyoto University provided overviews of the two universities. In her opening address, Dr. Inaba showed the participants a letter that was sent by the Library of the University of Leeds to the College of Engineering of Kyoto Imperial University 1916 expressing thanks for a book that had been gifted—a very early example of exchange between the two institutions.</p> <p>The first day featured three keynote lectures on the theme of state-of-the-art</p>

engineering for natural disaster identification, mitigation, prevention and response. The lectures were delivered by Prof. Ioannis Anastasopoulos (ETH Zürich), Prof. Roko Žarnić (University of Ljubljana) and Prof. Sebastiaan Meijer (KTH Royal Institute of Technology). Following that, as a precursor to the thematic group discussions, Dr. Raul Fuentes, Dr. Natalie van der Wal, Prof. Sawaragi and Prof. Tachikawa gave presentations on interdisciplinary research and education for natural disaster mitigation, including an introduction of the Kyoto University Design School. Four group discussions were then held on the following themes:

- Data-centric & human-centric design of resilient socio-technical systems using participatory systems approach and AI
- Robotic innovation for disaster management and human-robot collaboration
- Advancement of structural and geotechnical engineering for natural disaster identification, mitigation, prevention and response
- Interdisciplinary approach to mitigate/prevent water-related disasters

The group discussions had the following four objectives:

- Identify the state-of-the-art technology and knowledge in each area.
- Identify “research gaps” where more work is needed.
- Rank the research needs in order of importance with regards to moving the field forward.
- Identify the inter-disciplinary research needs in each area.

The groups also discussed potential topics for collaborative research, workshop plans, and the development of a new joint graduate school program.

On the second day of the symposium, the achievements of the first phase (2013–17) of the RENKEI network was reviewed, and a plan was proposed for its second phase (2018–22). Following that, a presentation about research funding opportunities was delivered by Ms. Chika Itoi and Ms. Ai Ozaki from JSPS London. The symposium concluded with a wrap up session in which representatives from each discussion group presented a summary of their discussions, including suggestions for collaborative research topics, project proposals, and workshop plans. On the following day the participants from Kyoto University visited several laboratories at the University of Leeds to discuss concrete plans for research topics.

Symposium URL	https://engineering.leeds.ac.uk/info/201479/conferences/337/kyoto_university-university_of_leeds_international_symposium
Total number of participants (including audience)	30