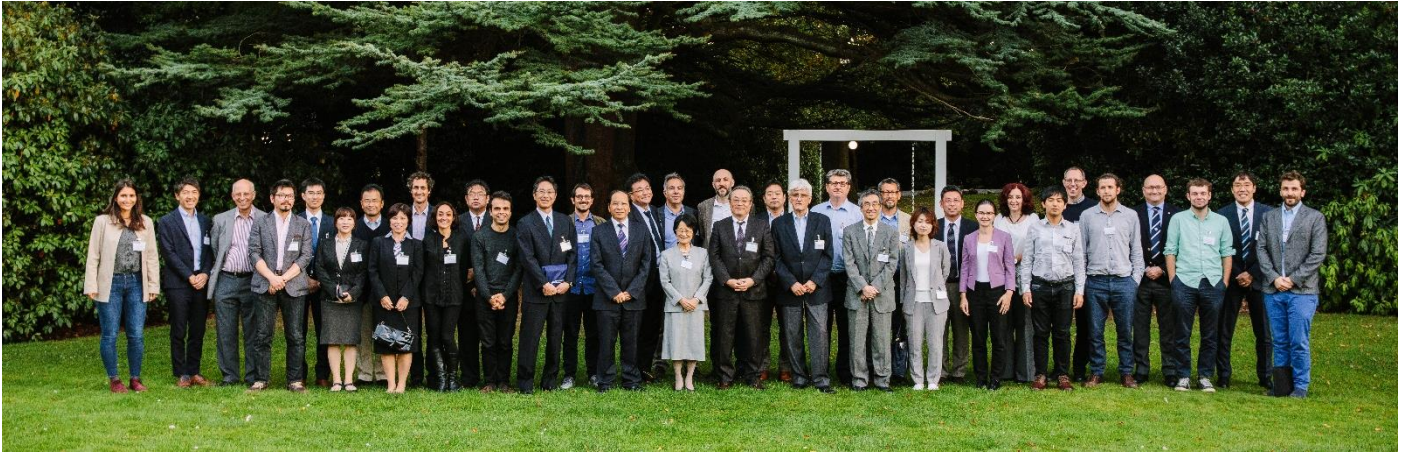


University of Leeds - Kyoto University International Symposium:
**Advanced Engineering for Natural Disaster Identification, Mitigation,
Prevention and Response**
17 – 19 September 2018
Leeds, UK



Programme

Arrival: Sunday 16th September 2018

Arrival, accommodation at Weetwood Hall, Leeds.

Day 1: Monday 17th September, Weetwood Hall

08:45 – 09:00

Registration (Headingley Breakout)

09:00 - 09:45

Opening Ceremony (Cookridge Suite)

Opening Address by

Hai-Sui Yu, Deputy-Vice-Chancellor International, University of Leeds

Kayo Inaba, Executive Vice-President for Gender Equality, International Affairs, and Public Relations, Kyoto University

Dr Inaba and Prof. Hai-Sui Yu welcomed the attendants and explained the existing relationships between both universities and the future plans.

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(Left) Prof. Hai-Sui Yu; (Right) Dr Inaba.

Introduction to the University of Leeds and Kyoto University by
Raul Fuentes, Pro Dean (International), Faculty of Engineering, University of Leeds
Tetsuo Sarawagi, Vice-Dean, Graduate School of Engineering, Kyoto University



(Left) Dr Fuentes; (Right) Prof. Sawaragi.

Session 1

Introduction - Purpose and design of the workshop by
Yasuto Tachikawa (Kyoto University)



Prof. Tachikawa

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09:45 - 10:00 *Tea/Coffee*

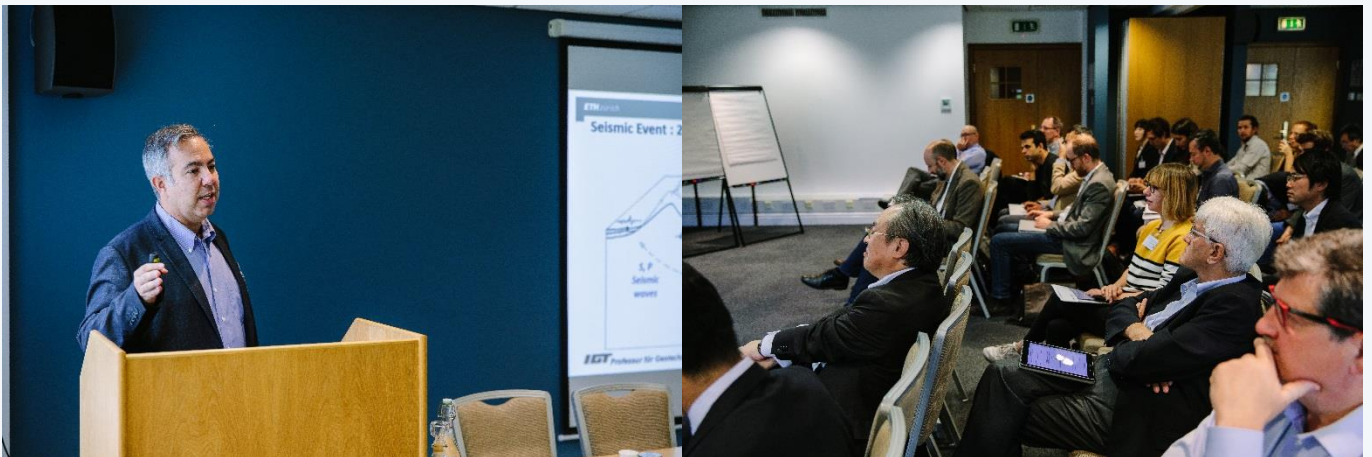


10:00 - 12:00

Keynote Lectures (30 minute + 10 discussion each)

1. "Novel design methods and strategies for seismic hazard mitigation".

Ioannis Anastasopoulos (ETH Zürich)



Prof. Anastasopoulos gave a presentation on new design methods to mitigate seismic hazard, focusing on new, novel, approaches based on incorporating the ground deformation (rocking in particular) into the design and mitigation of structures. He also presented other innovative construction techniques for bridge deck protection.

2. "The inclusive approach to assessment of resilience of cultural heritage assets".

Roko Žarnić (University of Ljubljana)

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Prof. Zarnic gave a presentation about cultural heritage and how to quantify this in holistic and inclusive way, especially in the face of natural disasters. He covered the results of his previous work including large, high-profile, EU funding projects he led.

12:00 - 12:30

Session 2

Introduction of participants

Raul Fuentes (University of Leeds) and Yasuto Tachikawa (Kyoto University)

12:30 - 14:00

Lunch (Woodland Suite)

14:00 – 14:40

Keynote Lecture (30 minute + 10 discussion)

3. “On the role of agency in design of complex systems”

Sebastiaan Meijer (KTH Royal Institute of Technology)



Prof. Meijer presented his pioneering work on the use of gaming, agency and other systems to the study of cities and infrastructure systems, considering them as complex systems and using appropriate theories to cater for this. He also covered the inclusion of different stakeholders (agents) in decision-making, giving examples in the Netherlands.

14:40 - 15:45

Day 1: Monday 17th September, Weetwood Hall

Interdisciplinary Session (Plenary Session)



Three presentations were provided. Dr Fuentes and Dr Van der Wal presented a conceptual framework to consider cities in a trans-disciplinary approach. Dr Van der Wal presented her Marie Sokolowska-Curie Fellowship that focusses on using agent-based models to consider evacuation processes in emergencies, including psychology and agent-based models among other disciplines.

Prof. Tachikawa presented his pioneering work on the consideration of flooding prediction, prevention and response in Japan, considering a truly interdisciplinary approach.

Prof. Sawaragi presented the ground-breaking approach that the Kyoto University Design School is taking to Research and Student Education to integrate multiple disciplines to solve complex problems.

15:45 - 16:00

Tea/Coffee

16:00 - 17:30

Thematic Group Session for State-of-the-art review paper (Cookridge Suite and Moortown Room)
Presentations and discussion.

The purpose of this session was to draft the skeleton of a *Review paper* in each of the individual areas with a view to:

- Identify the state-of-the-art in each area.
- Identify research gaps and need.
- Rank the research needs in terms of importance to move the field forwards.

Day 1: Monday 17th September, Weetwood Hall

- Identify needs for inter-disciplinary research in each area.

The group was divided into four different topics according to participants' expertise. The areas covered were:

- Group 1: Remote sensing and Design School (economics, sociology and data analytics);
- Group 2: Geotechnics and Structures;
- Group 3: Hydrology and Water resources;
- Group 4: Robotics;

19:00

Dinner (Jacobean Room)

Day 2: Tuesday 18th September, Weetwood Hall

09:00 - 11:00

Thematic Group Session for State-of-the-art review paper *continued* (Cookridge Suite and Moortown Room)

Presentations and discussion.



Groups 1 (Remote sensing and Design School (economics, sociology and data analytics); Group 2 (Geotechnics and Structures); Group 3 (Hydrology and Water resources) and Group 4 (Robotics).

11:00 - 11:15

Tea/Coffee

11:15 - 12:30

Thematic Group Sessions for summarizing the presentations and discussion (continuation from previous).

Each thematic group will report the presentations and discussion and we will identify potential ways to tackle the above research gaps together. The discussion summary may include:

- New collaborative research; academic exchange; new grants; new papers, etc.

Each group will make a summary of discussion in the distributed power point file and each thematic group leader will make a presentation in the wrap-up session.

12:30 - 14:00 *Lunch (Woodland Suite)*

14:00 – 15:00

RENKEI project: Kyoto University – University of Leeds collaboration (Cookridge Suite)

Introduction of the RENKEI network

Funding opportunities presentation (JSPS, Leeds, Kyoto)

This session provided information on the different existing funding mechanisms to promote combined research between Japan and the UK, and Kyoto and Leeds.

Ms. Chika Itoi, Deputy Director and Ms. Ai Ozaki, International Programme Associate, JSPS, will be in attendance.

14:00 – 15:00

Meeting between University of Leeds Sir Alan Langlands and Dr Inaba from Kyoto University



In parallel to the main Symposium event, Sir Alan Langlands, VC and Prof. Hai-Sui YU, DVC met with Executive Vice-President Dr Inaba during the visit to Leeds. She discussed her role at Kyoto, particularly around gender equality and her efforts in this area. The current Leeds/Kyoto relationship was discussed and all sides felt positive about the direction of movement for the future of the link. The VC / DVC were keen to visit Kyoto again in future to deepen the relationship.

15:00 – 15:15

Tea/Coffee

15:15 - 16:30

Wrap-up session (Cookridge Suite)

[Link to Group 1 slides.](#)

[Link to Group 2 slides.](#)

[Link to Group 3 slides.](#)

[Link to Group 4 slides.](#)

16:30 - 17:00

Interdisciplinary Session (Grand Challenges)

The purpose of this session is to identify the Grand Challenges that require of a truly interdisciplinary approach to tackle them.

19:00

Dinner

Day 3: Wednesday 19th September

09:30

Coach from Weetwood Hall to Leeds University

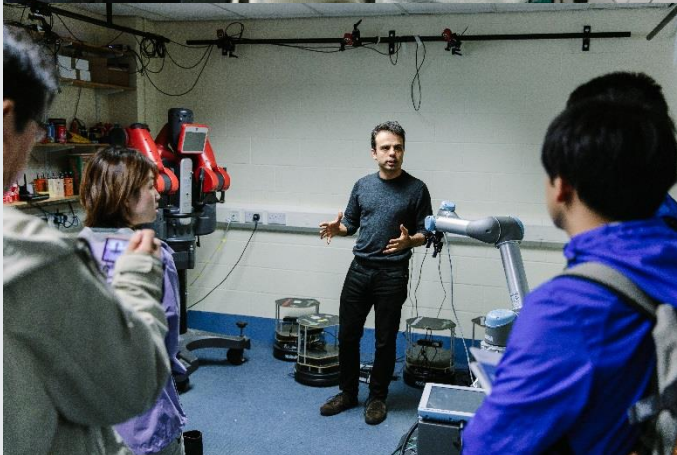
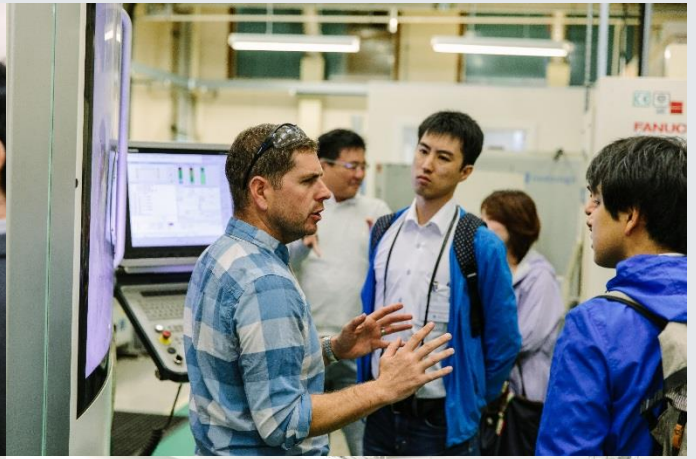


10:00 – 13:15

Laboratory visits to the University of Leeds, including lunch.

The Kyoto delegation visited the following laboratories:

- EPSRC National Facility for Innovative Robotic Systems
(<https://robotics.leeds.ac.uk/facilities/manufacturing-assets/>)
- Sorby Environmental Fluid Dynamics Laboratory
(<https://environment.leeds.ac.uk/dir-record/facilities-environment/766/sorby-environmental-fluid-dynamics-laboratory>)
- Rock Mechanics, Engineering Geology and Geotechnical (RMEGG)
(<https://environment.leeds.ac.uk/dir-record/facilities-environment/934/rock-mechanics-engineering-geology-and-geotechnical-rmegg-laboratories>)



13:15 – 14:30
Travel to York

14:30 – 17:30

Sightseeing visit to York

17:30 – 18:30

Coach from York to Weetwood Hall, Leeds

Day 4: Thursday 20th September

Departure

Follow-on activities

RENKEI Event 2018

The RENKEI network is due to meet in Kyushu University on Monday 26th November. This meeting will be attended by Prof. Tachikawa from Kyoto and Dr Fuentes from University of Leeds.

This will be an opportunity to discuss the next steps in the relationship in the upcoming years.

Later in the week, on Wednesday 28th RENKEI will host a forum and networking reception at the British Embassy in Tokyo where the network and combined research strengths will be highlighted.

On Thursday 29th and Friday 30th RENKEI will host a researchers networking event on the topic of Climate Change that will be attended by researchers from all member institutions. This will provide another opportunity to discuss future plans and enhance further the collaboration.