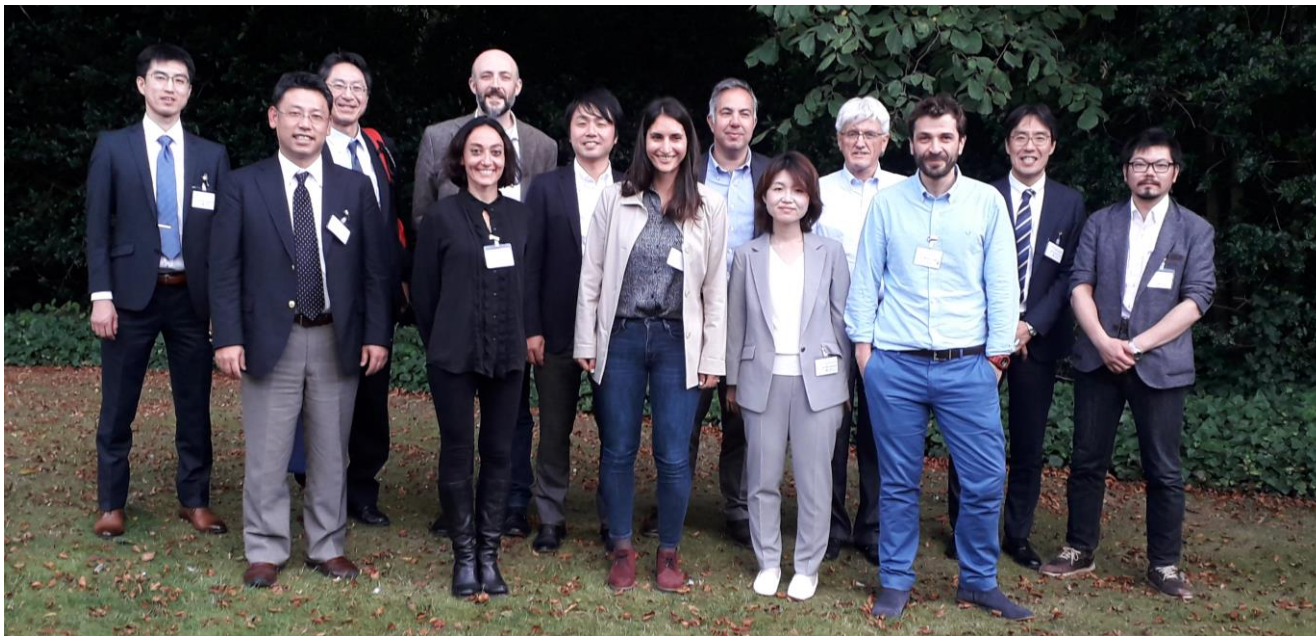


Leeds-Kyoto Symposium, September 17-19, 2018

Session Title: Advancement of Structural and Geotechnical Engineering for Natural Disaster Identification, Mitigation, Prevention and Response

Session Coordinators: Prof. Yoshikazu Takahashi (KU) and Dr. Ornella Iuorio (UL)

**Presenters: Prof. Nikolaos Nikitas, Dr. Ornella Iuorio, Dr. Chrysothemis Paraskevopoulou (Leeds)
Prof. Tomomi Yagi, Prof. Yoshikazu Takahashi, Prof. Yosuke Higo,
Dr. Kyohei Noguchi, Dr. Satoshi Takaya, Dr. Mai Sawada (Kyoto)**



Time dependent structural behaviour and interaction under multiple hazards is our main concern. Taking into account that we consider actions from instantaneous (like earthquake) to mid-term (like flooding) to long-term (as environmental, fatigue, creep ...) we aim to evaluate the how the variability of different hazards (i.e. natural, man made and environmental) influence the performance of the infrastructure and how the changing in occurrence influence the life time performance. The work will build on current theoretical, numerical and experimental techniques.

Please elaborate future plans to promote A: Collaborative Research and B: Academic Exchange, if any.

A. Collaborative Research

- ① Review paper for time dependent (from instantaneous to long-term) behavior of infrastructure and service provided by infrastructure considering interactions between structure-soil, structure-wind, structure-material-environment. Time dependent behavior includes the deterioration of characteristics of infrastructures and the improvement of required performance.
- ② Comparison of maintenance and retrofit strategies considering life time between Japan and EU
- ③ Intensive collaboration will start with sub-group of dynamics of structure-soil interaction induced by earthquake and wind, and that of sustainability of structure/services considering material-environmental interaction and maintenance/renewal strategy.
- ④ Identify possibility to develop the collaborative tools including experimentally and numerically between Kyoto and Leeds to evaluate dynamic response of infrastructures.
- ⑤ Prepare paper based on experimental data available from KU and Leeds in the field of seismic behavior of embankment entitled “From modeling to experiments”
- ⑥ Possibility to extend the collaborative research with ETH and University of Ljubljana.

B. Academic Exchange

- ① Special workshop on “From dynamics to sustainability of infrastructures under multi-hazards” will be co-organized with University of Leeds and Kyoto University in Easter break (Last week of March).
- ② We will try to continue to promote the exchange of young researchers.