

My JSPS Fellow Experience During Jul - Sep 2014

Siu-Kui Au

Professor, Chair of Uncertainty, Reliability and Risk, University of Liverpool

E-mail: siukuiau@liverpool.ac.uk

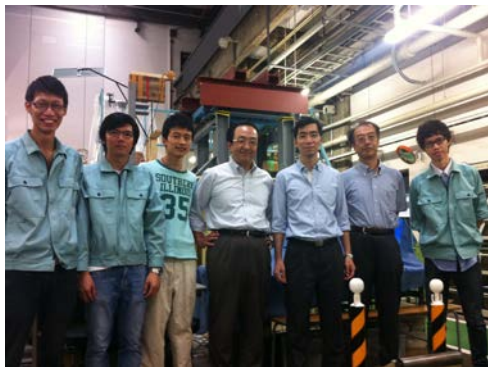
My research visit lasted for two months between July and September 2014. My visit was hosted by Professor Ikumasa Yoshida at the Department of Urban and Civil Engineering, Tokyo City University (here abbreviated as 'Toshidai'). It was not my first visit to Japan or Toshidai but the support from JSPS fellowship gives a new dimension to the visit enriching my research and cultural experience.

My research expertise spans along two directions, reliability of complex systems and structural health monitoring of civil engineering structures. During my visit various research collaboration opportunities have been explored, including two major directions which are currently being actively pursued. The first one aims at studying the deterioration of reinforced concrete members subjected to corrosion, incorporating structural health monitoring and vibration testing techniques. It leverages on the expertise and advanced concrete testing facility of Prof. Akiyama's (collaborator introduced by Prof. Yoshida) lab at Waseda University, Prof. Yoshida's expertise in inverse problems, and my expertise in ambient vibration testing. The second research direction aims at developing advanced Monte Carlo algorithms for solving Bayesian updating problems for complex systems, leveraging on Prof. Yoshida's expertise in inverse problems and infrastructures and mine in advanced Monte Carlo algorithms.

My experience of the research visit was excellent in many aspects. Japanese researchers have a very strong collaborative culture and their research activities have a very high relevance to industrial applications. This gives an excellent exposure for researchers especially those in the engineering disciplines. I have had the opportunity to interact closely with Prof. Yoshida and his research group. My office was just next to his office, and both are within a big 'lab' where undergraduate and graduate students are doing research everyday. Apart from core research activities I was also invited to give seminars and visit different labs, e.g., concrete lab of Prof. Akiyama, Waseda University; fatigue testing lab of Prof. Shirahata, Toshidai; advanced research lab of Prof. Miki, Toshidai. I appreciated very much the opportunity to meet these and other excellent researchers in their respective fields. Culturally I also had some 'hot-spring trips' and enjoyed this unique culture of Japan.

Some tips in Japan:

1. The train/metro system is very efficient and punctual
2. The Yahoo Japan website has a very good travel planner with clear transportation instructions for getting around
3. In a group dinner it is common to start with a beer. Say 'Kanpai' (Japanese for 'cheers') as a group before you drink the beer.
4. Going to pubs after a group dinner is common and it is a good opportunity for closer discussion
5. Learning some Japanese words/phrases used in restaurants can significantly enrich your experience
6. 'Katakana' is one of the two types of Japanese characters and is frequently used, e.g., in supermarkets and advertisements. In many cases the words written in Katakana mimics an English word and with some imagination you can usually guess what they mean. It is therefore quite useful to learn.



Visit to Akiyama's lab at Waseda University



'Kanpai' in a Japanese pub after group dinner