

16th World Conference on Earthquake Engineering 2017 Debrief – Alex Shegay

The World Conference on Earthquake Engineering (WCEE) is the largest symposium of earthquake engineers from around the world. The conference has been held once every four years since its inception over 6 decades ago in 1956. The event brings together a wide group of specialists outside of engineering including scientists, planners and architects, to present their research and discuss the most precedent issues facing the earthquake engineering field. This year, the conference was hosted in Santiago, Chile and the conference the theme revolved around resilience and risk reduction. This year, the conference attracted over 3000 participants with over 2000 abstracts submitted.

The conference had a very busy schedule. Each day begun with a morning keynote presentation followed by a total of approximately 6 hours of parallel sessions, divided into three two-hour slots. In total, 15 sessions were held concurrently at any one time. The vast range of research around the world was overwhelming and very impressive. Topics ranged from fundamentally relevant topics to New Zealand such as protecting heritage buildings, research into steel and concrete structures and developing seismic monitoring sensor networks to those of lesser concern such as nuclear and petrochemical research. In addition, a special session would be reserved in the afternoon for either a debate, or a talk from an invited lecturer. The debates in particular (Performance-Based Design: Promises & Pitfalls and Prescription of Seismic Demands: Probabilistic vs. Deterministic) were extremely engaging and served as a nice catalyst for some compelling discussion in the follow up.

The conference also provided many networking opportunities to re-connect with international colleagues but also served as a great platform to meet new collaborators. After my presentation on “Experimental Testing of RC Walls with High Axial Loads” I was approached by a number of Chilean and European researchers and practitioners who had further interest in the test results and in learning about common New Zealand design and detailing methodologies for RC walls. Furthermore, the conference was a perfect opportunity to hold the last meeting for the NSF virtual wall research institute. The institute comprises researchers from NZ, Japan, Europe, Chile and the United States and was formed three years ago to collate and share the vast amount of research being conducted around the world on RC walls. Though unlike the other ‘workshops’ held by this institute, this meeting was ideal in re-grouping ideas and setting a plan for future collaboration.

The New Zealand Society for Earthquake Engineering teamed up with Tourism NZ to put in a strong bid at the conference to host the 17WCEE at the Skycity Convention Centre currently under construction in Auckland. The competition was fierce from Indonesia, India and Japan. On this occasion, Japan won the majority vote to host in the 17WCEE in 2020. The conference will be held in Sendai, a city that sustained major damage from the tsunami triggered by the 2011 Tohoku earthquake, but also a city that showed the highest level of resilience and recovery post-event.

Overall, the experience of attending the largest conference in my field has been unique and truly rewarding. I cannot be thankful enough to the New Zealand Concrete Society for awarding me the travel bursary which has enabled me to attend this conference.