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EDITORIAL

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In September 2016 a workshop on the Evaluation of the Seismic Response of Reinforced Concrete (RC) Buildings was held between researchers from New Zealand and Japan. The workshop was attended by 30 researchers including established experts, early career researchers, and PhD students, as shown in Fig. 1. The workshop commenced with a seminar on the seismic performance of concrete buildings in Kumamoto earthquake and was followed by research presentations on a range of topics. Despite differences in design and construction practice there were a number of similarities identified in the research priorities for both countries, including concrete wall design, interactions between components and system level effects, residual capacity and repair of earthquake damaged buildings, and the development of low-damage structural systems.

A number of resolutions were made at the conclusion of the workshop, the first of which was to develop the research papers presented into a special issue for the NZSEE Bulletin. This special issue is the result of this process and highlights the range of reinforced concrete building research currently underway in both countries. Additional resolutions included:

- Development of best practice guidelines for structural testing and instrumentation.
- Summarise the difference in Japan and NZ/US wall design practice.
- Investigate the opportunity to use damaged large-scale specimen to do residual capacity and repair tests on extracted components.

The workshop was part of the New Zealand-Japan bi-lateral joint research programme on evaluation of seismic performance of reinforced concrete wall buildings that is supported by the Royal Society of New Zealand and Japan Society for the Promotion of Science. A follow up workshop will be held in Nikko, Japan in November 2017.

This special issue includes 14 papers from those who attended the 2016 workshop. The papers have been arranged into topic areas, including:

- RC wall design and testing;
- RC frame design and testing;
- Effect of secondary wall components;
- Residual capacity and repair;
- Low-damage designs.

The last paper presents a summary of the research priorities for RC wall buildings that was developed by a wider group of researchers from Australia, Chile, Japan, Europe, New Zealand, and the United States.

Fig. 1: Workshop group in Waiheke (Sept 2016).

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