

WELCOME MESSAGE

On behalf of the Organising Committee I would like to extend a warm welcome to all participants of the 6th International Conference on Geotechnical Earthquake Engineering (6ICEGE), in Christchurch, New Zealand.

The 6ICEGE is organised by the New Zealand Geotechnical Society (NZGS) under the auspices of the Technical Committee TC203 (Technical Committee on Earthquake Geotechnical Engineering) of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). Following the highly successful conferences in Tokyo 1995, Lisbon 1999, Berkeley 2004, Thessaloniki 2007 and Santiago 2011, we are delighted to host the sixth event in this series of specialised conferences on earthquake geotechnical engineering, here in Christchurch.

The 6ICEGE offers an outstanding technical programme on a range of earthquake geotechnical engineering topics, presented in the published proceedings, and the oral and poster sessions. Following a rigorous review process nearly 400 papers have been accepted and included in the 6ICEGE proceedings. Over 200 papers will be presented in the oral sessions including 33 invited lectures and two special lectures, the 5th Ishihara Lecture and the 2nd Schofield Lecture.

Since the 5ICEGE in Santiago in January 2011, several major earthquakes have occurred throughout the world; the 2010-2011 Christchurch earthquakes, the 2011 Tohoku (Japan) earthquake and more recently the 2015 Nepal earthquake, to mention but a few. These earthquakes caused loss of life, extensive damage and tremendous impacts on people and communities. Christchurch was not an exception in this regard, and geotechnical problems and related damage were signature features of the Christchurch earthquakes. You will witness the tremendous impacts of the earthquakes on Christchurch, but also the impressive efforts in rebuilding the city. Indeed, Christchurch offers an exceptional context and venue for the 6ICEGE.

We believe the 6ICEGE provides an excellent opportunity for earthquake and geotechnical engineers, geologists and seismologists, consulting engineers, public and private contractors, regional and national authorities, and all those involved with engineering works and research related to earthquake geotechnical engineering, to exchange ideas and present their recent experience and developments. It also provides a great opportunity to enjoy New Zealand's stunning natural and cultural beauty. Our Technical Tours and Accompanying Persons Programmes have been carefully tailored to facilitate your active participation, and we hope that you will find the 6ICEGE professionally rewarding, scientifically stimulating and personally enjoyable.

Thank you for your contributions, and enjoy the conference and New Zealand.

Misko Cubrinovski
Professor, University of Canterbury
6ICEGE Chairman

ACKNOWLEDGEMENTS

On behalf of the Organising Committee I would like to acknowledge the seed funding for 6ICEGE provided by the conference partners, the New Zealand Geotechnical Society (NZGS), the Earthquake Commission (EQC), and the University of Canterbury Quake Centre (UCQC). Additionally, I would like to recognise the financial support of the 6ICEGE platinum sponsors, Tonkin and Taylor, and Golder Associates, as well as the numerous gold, silver and bronze sponsors. We appreciate your great support and contribution to the success of the 6ICEGE.

We are thankful to all authors for their high quality contributions. Special thanks are extended to the invited speakers for their excellent contributions and papers, which are the highlight of the 6ICEGE technical programme. The contribution of the numerous reviewers is also acknowledged and greatly appreciated.

Finally, I would like to express my warmest thanks to our postgraduate students for their assistance in various matters associated with this conference, and to the outstanding efforts of the Organising Committee of the 6ICEGE. I particularly appreciate the exceptional efforts and contributions of Charlie Price (NZGS Chair), Brendon Bradley (UC), Liam Wotherspoon (UA) and Mark Stringer (UC), and would like to extend my personal thanks to them.

Misko Cubrinovski
Professor, University of Canterbury
6ICEGE Chairman



6TH INTERNATIONAL CONFERENCE ON EARTHQUAKE GEOTECHNICAL ENGINEERING (6ICEGE)

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The 6ICEGE Organising Committee would like to thank the following reviewers for undertaking the reviews of the papers presented in these Proceedings.

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