



The
Geological
Society

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Joint meeting with



Speaker:
Professor Michael Davies
(University of Sussex)

Details:

Tea/Coffee 17:30

Lecture 18:00

Free to attend

Registration not
required

Geotechnical Implications of the 2010-2011 Canterbury (New Zealand) Earthquake Sequence

17:30 Wednesday 9th April 2014

Evening Meeting

The Geological Society Burlington House, Piccadilly, London

In September 2010, February 2011 and June 2011 three large shallow earthquakes occurred in the Canterbury region of New Zealand. The magnitude of the first major earthquake in the sequence was M 7.1, the second M 6.3 and the third M 6.0. The epicentre of the 2010 earthquake was 44 km to the west of the central business district (CBD) of Christchurch - which, with a population of 390,300, is the second largest city in New Zealand - whilst the epicentres of both 2011 earthquakes were 6 km from the CBD. Although of a lower magnitude than the September 2010 earthquake, mainly as a result of the proximity of the epicentres to the CBD and the eastern and southern suburbs of Christchurch, the 2011 earthquakes resulted in significantly greater groundshock in these areas. This explains why the lower magnitude earthquakes had a more destructive effect on structures and lifelines; with a resulting greater number of casualties in the first of these. Geotechnical observations and implications of these earthquakes, such as surface fault rupture, rockfalls, liquefaction and lateral spreading are presented.

Professor Michael Davies is Deputy Vice-Chancellor at the University of Sussex. Prior to being appointed to his present post in January 2013 he was the Dean of Engineering at the University of Auckland, New Zealand and also Pro-Vice-Chancellor of The University of Auckland Tāmaki Innovation Campus. From 1997 to 2007 he was the Professor of Civil Engineering at the University of Dundee and was previously a lecturer in the School of Engineering at Cardiff University. At both Cardiff and Dundee universities Professor Davies established Geotechnical centrifuge facilities. He obtained his first degree from King's College, University of London and his Masters and PhD degrees from the University of Cambridge. Following this he was a NATO/SERC Research Fellow at the University of California, Los Angeles. He is currently an Honorary Professor at both the University of Dundee and the University of Auckland. He is a Fellow of the ICE, the Geological Society of London, the Institution of Professional Engineers New Zealand and the Royal Society of Edinburgh. Professor Davies is a former Chairman of the British Geotechnical Association and from 2009 to 2013 was Vice-President for Australasia and First Vice-President of the International Society for Soil Mechanics and Geotechnical Engineering.

For further information please contact:

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