

## Table of contents

Foreword	vii
Preface	ix
New Zealand geology: A story of contorted crustal edge effects <i>H.J. Campbell</i>	1

### *Theme 1: Geohazards at the leading edge*

Damage to structures due to soil liquefaction <i>S. Yasuda</i>	15
Earthquake risk assessment: Combining science and engineering <i>W.D. Smith</i>	53
Volcanoes in the big smoke: A review of hazard and risk in the Auckland Volcanic Field <i>J.M. Lindsay</i>	63
Evidence of momentum transfer during large-scale rockslides' motion <i>A.L. Strom</i>	73

### *Theme 2: Managing geological risk*

Disasters should not be the protagonists of Disaster Risk Management <i>S. Mora</i>	89
Managing geological risk <i>B. Kalsnes, F. Nadim &amp; S. Lacasse</i>	111
Landslides seismically induced during the earthquake of 6 April 2009 in Abruzzo Region (Central Italy) <i>E. Miccadei, T. Piacentini &amp; N. Sciarra</i>	127
Non-seismic landslide hazards along the Himalayan Arc <i>D.N. Petley, N.J. Rosser, D. Karim, S. Wali, N. Ali, N. Nasab &amp; K. Shaban</i>	143

### *Theme 3: Advances in engineering geology*

The Geological Model <i>T.D. Sullivan</i>	155
Engineering geological models—Definitions and use with reference to landslide hazard assessments in Hong Kong <i>S. Parry</i>	171

A tribute to Professor William Dearman: New small-scale engineering geological maps of the United Kingdom	187
<i>M.G. Culshaw, M.R. Dobbs, H.J. Reeves, K.J. Northmore &amp; D.C. Entwisle</i>	

#### *Theme 4: Applied engineering geology*

Engineering geology of Alpine tunnels: Past, present and future	201
<i>S. Loew, G. Barla &amp; M. Diederichs</i>	
Study on the key engineering geological problems of the high rock slope at the Jinping I hydro-power station, China	255
<i>R.Q. Huang, M. Yan &amp; F. Lin</i>	
Collapsing cones, explosive excavations and failing fault scarps: Assessment and remedies	275
<i>W.M. Prebble</i>	
Rock mass characterization as input in the development of founding criteria for dams; some South African examples	293
<i>G.N. Davis</i>	

#### *Theme 5: Evolving engineering geology*

Simplicity and complexity—An appeal to strengthen the scientific-technological base of engineering geology	305
<i>H. Bock</i>	
Terroir and the geology of wine	321
<i>S. Burns</i>	
Defining competencies for geo-engineering: Implications for education and training	333
<i>A.K. Turner</i>	
Author index	341