SPIŚ TREŚCI

Is. 1

PRESIDENTIAL ADDRESS
3 Civil engineers: inspiring, innovating, informing

BRIEFING
9 Using building information modelling on a highway project
10 The ICE health and safety register: a recognised standard of competence
11 Road schemes at risk from persistently dirty diesels

MONITOR
12 Discussion
14 Books
16 ICE Proceedings
18 ICE review

TECHNICAL PAPERS
19 Concrete renaissance: design and construction of the Auditorium Oscar Niemeyer, Ravello, Italy / G. Martuscelli, I. Coppola and M. Di Placido
27 London Underground: unraveling 150 years of structural secrets / G. Bessant and R. McKoy
35 The use of GDM 2007 in the London 2012 construction programme / M. Webster
42 Is the USA set to dominate accreditation of engineering education and professional qualifications? / A. Anwar and D. Richards
BRIEFING
51 Negative emissions technologies could become the world's largest industry
52 Designing for diversity: one of the biggest challenges facing civil engineers
53 Lessons learned for civil engineers from the earthquakes in Christchurch, New Zealand
54 Cloud computing set to make complex design simulation accessible to all civil engineers

MONITOR
55 Discussion
58 Books
60 ICE Proceedings
63 ICE review

TECHNICAL PAPERS
74 Kolkata's brick sewer renewal: history, challenges and benefits / N.B. Basu, A. Dey and D. Ghosh
82 Accounting for the greenhouse gas emissions of construction: a UK case study / A. Amiri, P. Caddock and M. Whitehead
89 Civil engineering's image in the UK - a 10-year update / L. Hamill and L. Hodgkinson
BRIEFING
99 The new infrastructure procurement routemap: a global guide to improving delivery capability
100 New model set to revolutionise the design and development of reinforced-concrete structures
101 Developments in UK flood forecasting will lead to major reduction in flash-flood risk
102 EU spreads the net for waste electrical and electronic equipment
103 The importance of teaching civil engineers about learning from failure

MONITOR
104 Discussion
106 Books
108 ICE Proceedings
110 Award-winning papers for free download
11 ICE review

TECHNICAL PAPERS
114 Global engineers thinking locally: creating kindergartens for Africa / H. Gryc and J. da Silva
122 Peninsula Link: Australia’s first availability public-private partnership highway / A. Gilbert
129 London Olympic Park underpass leads to better understanding of cast iron / M. Kirk
137 The importance of understanding computer analyses in civil engineering / A. Borthwick, J. Carpenter, B. Clarke, R. Falconer and J. Wicks
BRIEFING
147 Carbon dioxide capture and storage faces a challenging future
148 Concrete's green credentials boosted by carbonation study
149 Natural stone: sustaining the future of the world's oldest construction material
150 Institution of Civil Engineers launches online image library

MONITOR
151 Discussion
154 Books
158 ICE Proceedings
160 ICE review

TECHNICAL PAPERS
162 Delivering the Emirates Air Line, London - Britain’s first urban cable car / M. Randall
170 The 2011 Great East Japan earthquake, tsunami and nuclear disaster / A. Inokuma and D. Nagayama
178 Port of Newcastle, Australia: innovation at one of the world's largest coal-export terminals / C. Varming
185 Delivery of subway line 9 in Seoul, South Korea - lessons in public-private partnering / I.K. Lee and J.-H. Shin
Special Issue 5

2 Introduction / E. Kent and R. Burcombe

TECHNICAL PAPERS

3 From wasteland to world-class centre: Barangaroo South, Sydney, Australia / P. Wong, R. Bressi, P. Jerogin and V. Kardash

10 Port Botany expansion project, Sydney, Australia: design and construction of counterfort retaining walls / D. Packer, P. Masters and G. Riordan

15 Design and construction of the Inner West Busway, Sydney Australia / P. Hyndman, A. Shoebotham and I. Hespe

22 Hunter Expressway, Australia: dealing with poor ground and subsidence / A. Aryal, R. Kingsland, P. Rees et al.

28 Ipswich motorway, Australia: delivering transport solutions for urban corridors / G. Royle

36 Coping with the boom: transport strategies for Perth, Australia / G. Mason, G. Newson and C. Wooldrige

43 New stations in Melbourne, Australia: working in a live rail environment / M. Holt, M. Ager and C. Lyons

50 The Auckland rail electrification project, New Zealand: accelerated bridge construction in seismic zones / P. Wiles, A. Walker and D. Idle

57 Infrastructure impact and recovery following the 2010-2011 earthquakes in Christchurch, New Zealand / T. Howes and T. Cheesebrough
2 Introduction / Elizabeth Wilson

TECHNICAL PAPERS

3 Brazil - building the country of tomorrow / L. Pannett

13 São Paulo building for the future freeze-frames Brazil's past / M. Franco

20 State of the art of steel-concrete composite structures in Brazil / S. De Nardin and A. El Debs

28 Rio 2016 sustainable construction commitments lead to new developments in recycled aggregate concrete / R.D. Toledo Filho, E. Koenders, M. Pepe, G.C. Cordeiro, E. Fairbairn and E. Martinelli

36 Ground improvement in soft soils in Rio de Janeiro: the case of the Athletes' Park / M. Riccio, M. Baroni and M. Almeida

44 Flash flood control works around the Maracanã stadium district in Rio de Janeiro, Brazil / M. Duarte, P. Fonseca and A. Ortigao

49 Hydrodynamic evaluation of a flood embankment in the Amazon estuary region, Brazil / C. Blanco, M. Sena, A. Mesquita, M. Filho and Y. Secretan

56 The Rio Grande Port breakwater, Brazil: geotechnical design / F. Schnaid, G. Dienstmann, L.G. de Mello and S. Sandroni

Oprac. BPK