

Proceedings of the Institution of Civil Engineers UK, Volume 164, 2011

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1 Water Management

Papers

Modelling of urban flooding due to Yangtze River dike break

X. Wang; Z. Cao; G. Pender and G. Tan

Data mining approach for friction factor in mobile bed channel

B. Kumar

Optimal reservoir rule curves using simulated annealing

A. Kangrang; S. Compliew and R. Hormwichian

Modelling phytoplankton dynamics in a complex estuarine system

S. Nash; M. Hartnett and T. Dabrowski

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2 Water Management

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Multireservoir optimisation in discrete and continuous domains

O. Bozorg Haddad; A. Afshar and M. A. Mariño

A local scour prediction method for pile caps in complex piers

S. Ata Amini; T. A. Mohammad; A. A. Aziz;

A. H. Ghazali and B. B. K. Huat

Methodology to estimate hydraulic efficiency of drain inlets

M. Gómez and B. Russo

Suspended sediment effects on hydraulic jump characteristics

M. H. Omid; M. Nasrabadi and J. Farhoudi

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3 Construction Materials

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Compaction and design of gypsiferous fill for hot desert road pavements

S. S Razouki; D. K Kuttah and M. H Abood

Building limes in the United Kingdom

P. Livesey

Corrosion mitigation of chloride-contaminated reinforced concrete structures: a state-of-the-art review

S. C Das; H. S. Pouya and E. Ganjian

Self-healing cementitious materials: a review of recent work

C. Joseph; D. Gardner; T. Jefferson; B. Isaacs and B. Lark

Geopolymer concrete using industrial byproducts

K. K. Deevasan and R. V. Ranganath

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4 Ground Improvement

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Electrokinetic treatment on a tropical residual soil

K. B. Ahmad; M.R. Taha and K. A. Kassim

Role of moulding water content in lime stabilisation of soil

H. N. G. Ramesh and P. V. Sivapullaiah

Geometric parametric studies on reinforced soil gabion walls

P. K. Jayasree and K. S. Beena

Field behaviour of stiffened deep cement mixing piles

P. Jamsawang; D. T. Bergado and P. Voottipruex

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5 Management, Procurement and Law

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The case for behaviour-based safety in construction

H. Lees and J. Austin

The task demands assessment methodology

P. Mitropoulos and M. Namboodiri

A framework of task demand factors for residential framing

P. Mitropoulos and V. Guillama

A task-based safety model for construction projects

D. Liang; L. Song and T. Branham

Vietnamese construction workers' attitude to health and safety

A. Tutesigensi and B. N. Phung

OHSAS 18001 in a UK county highways and transportation department

M. Winter and T. Norman

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6 Transport

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Mix design for fine-grained exposed aggregate PCC pavement

S. W. Lee; Y.-H. Cho; B. J. Chon and C. Park

Heavy vehicle road wear on sealed unbound granular roads

T. C. Martin

Seasonal variability of skid resistance in paved roadways

T. Echaveguren and H. de Solminihac

Traffic microsimulation scenario tests by the Taguchi method

B. Gunay and S. Hinishlioglu

Modelling gender perception of quality in interurban bus services

M. Rojo; H. Gonzalo-Orden; L. dell'Olio and A. Ibeas

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7 Energy

Briefing

Navigating the UK energy funding landscape

J. Hardy

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Achieving zero carbon code level 6 for the Kingspan Lighthouse building

K. Holden and C. Twinn

Light-emitting diodes and their applications in energy-saving lighting

M. A. Moram

Operation of the 2030 GB power generation system

A. Gerber; B. Awad; J. B. Ekanayake and N. Jenkins

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8 Geotechnical Engineering

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Landslide in the area of the bridge on the Danube in Novi Sad

M. Djogo and M. Vasic

Mass behaviour of embedded improved soil raft in an excavation

H. Yang; T. S. Tan and C. F. Leung

The increase of wave velocity with time in concrete piles

M. Zhang and J. Liu

Stabilising peat soil with cement and silica fume

B. Kalantari; A. Prasad and B. B. K. Huat

Cavity expansion analysis with non-linear failure criterion

X. L. Yang and J. F. Zou

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9 Structures and Buildings

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Masonry bell towers: dynamic considerations

S. Ivorra; F. J. Pallarés and J. M. Adam

Grillage analysis of cellular decks with inclined webs

C. M. Mozos and Á. C. Aparicio

Forensic engineering of structures with durability problems

M. Holický

Plate-strengthened deep reinforced concrete coupling beams

R. K. L. Su and B. Cheng

Reliability analysis of shear strengthening externally bonded FRP models

J. L. Lima and J. A. Barros

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10 Engineering History and Heritage

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Middle Eastern archaeology

G. Roberts

The origin of federal drinking water quality standards

P. L. Gurian and J. A. Tarr

The woodhead dam on Table Mountain, Cape Town, South Africa

T. Murray

Paddington station: span 4 refurbishment and strengthening

G. Slade

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Vegetated flows in their environmental context: a review

A. M. Folkard

The explicit stiffness matrix of the 15-noded cubic strain triangle

A. J. Anyaegbunam and U. G. Ojiako

Mesoscopic modeling of masonry failure

K. De Proft, K. Heyens and B. Sluys

Improved robust design optimization of structures

S. Chakraborty and S. Bhattacharjya

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12 Maritime Engineering

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Young Coastal Scientists and Engineers Conference 2010

R. R. Simons, A. H. Brampton, T. A. A. Adcock, R. Briganti, B. Carroll, F. D. Milne and D. Stagonas

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Rehabilitation of Sines west breakwater: wave overtopping study

M. T. Reis, M. G. Neves, M. R. Lopes, K. Hu and L. G. Silva

Salinity intrusion length: comparison of different approaches

A. Etemad-Shahidi, J. Parsa and M. Hajiani

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Early-age properties of concrete: overview of fundamental concepts and state-of-the-art research

M. Nehdi and A. M. Soliman

Durability of wheat straw ash concrete exposed to freeze-thaw damage

N. M. Al-Akhras

Compacted dune sand concrete for pavement applications

S. El Euch Khay, J. Neji and A. Loulizi

Material cost and escalation clauses in Indian construction contracts

R. Maran, S. Rajendran and S. Kalidindi

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Optimal design and operation of pumping stations using NLP-GA

S. Rasoulzadeh-Gharibdousti, O. Bozorg Haddad and M. A. Marino

Performance of a novel hybrid algorithm in the design of water networks

N. Ghajarnia, O. Bozorg Haddad and M.A. Marino

Surface vortex prevention at power intakes by horizontal plates

S. M. Amiri, A. R. Zarrati, R. Roshan and H. Sarkardeh

Modelling runoff and sediment rate using a neuro-fuzzy technique

P. C. Nayak and S. K. Jain

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15 Geotechnical Engineering Compacted fills – part 1

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Assessment of pyritic Lower Lias mudrocks for earthworks

M. A. Czerewko, S. A. Cross, P. G. Dumelow and A. Saadvandi

Earthworks to reclaim UK quarry for housing development

S. T. Jarvis

The design and construction of filled building platforms

D. P. McNicholl

High speed 1, UK: a silty sustainable earthworks case study

C. Barker and A. Phear

Compaction of fills involving stabilisation of expansive soils

M. N. Rahmat and J. M. Kinuthia

Study of carbonate sedimentary rocks are engineered dry fills

H. T. Brocklebank and P. Sharp

Assessment of water retention behaviour in compacted fills

M. Zielinski, M. Sánchez, E. Romero and P. Sentenac

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Ductile moment-resistant steel – timber connections

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Ductility of timber joints under static and cyclic loads

M. Piazza, A. Polastri and R. Tomasi

Optimisation of pre/post-stressed embedment-type timber joint

T. Shiratori, A. J. M. Leijten and K. Komatsu

Design of timber gridded shell structures

R. Harris

Development of prefabricated timber-concrete composite floor systems

M. Fragiaco and E. Lukaszewska

Timber-concrete practical applications – bridge case study

A.M. P. G. Dias, M. C. P. Ferreira, L. F. C. Jorge and H. M. G. Martins

Long-term load deformation behaviour of timber-concrete joints

J. W. G. Van de Kuilen and A. M. P. G. Dias

Long-term load test of a wood-concrete composite beam

L. To, M. Fragiaco, J. Balogh and R. M. Gutkowski

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Modelling railway track geometry deterioration

H. Guler, S. Jovanovic and G. Evren

Examining model choice disparities in high school students

D. Alemu and J. – I. G. Tsutsumi

A new approach for GIS-supported mapping of traffic accidents

I. B. Gundogdu

Fibre-reinforced roller-compacted concrete transport pavements

K. Neocleous, H. Angelakopoulos, K. Pilakoutas and M. Guadagnini

Use of volcanic aggregates in asphalt pavement mixes

H. Akbulut, C. Gurer and S. Cetin

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