

**PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS UK,  
VOLUME 163, 2010 AVAILABLE AT PEC LIBRARY**

- | Sr. No | Main Topics  |
|--------|--|
| 1      | <p><b>Engineering and Computational Mechanics</b></p> <ul style="list-style-type: none"><li>• <b>Papers</b><ul style="list-style-type: none"><li><b>Ship impact on offshore minimum-structure platforms</b><br/>G. S. Grewal and M. M. K. Lee</li><li><b>Finite-element software for conceptual design</b><br/>J. Lindemann; G. Sandberg and L. Damkilde</li><li><b>Performance estimation of prestressed concrete box girders</b><br/>T. Ch. Madhavi; M. Sekar and V. Paramasivam</li><li><b>Modelling heat exchange between RCC dam and reservoir</b><br/>K. H. Bayagoob; J. Noorzaei; M. S. Jaafar; W. A. Thanoon and A. A. Abdulrazeg</li><li><b>Modelling of reinforced concrete structures in fire</b><br/>Z. Huangon</li></ul></li></ul> <p>Volume-163 • Issue EM1 March 2010</p> |
| 2      | <p><b>Geotechnical Engineering</b></p> <ul style="list-style-type: none"><li>• <b>Papers</b><ul style="list-style-type: none"><li><b>Design and performance of a basement in Norwich, UK</b><br/>A. Bowden and A. Lees</li><li><b>Settlement of piled foundations using equivalent raft approach</b><br/>N. T. Dung; S. G. Chung and S. R. Kim</li><li><b>Effect of material uncertainty on stochastic response of dams</b><br/>K. Hacıfendioglu</li><li><b>The influence of moisture on sandstone properties in Iran</b><br/>M. Zare Naghadehi; R. KhaloKakaie and S. R. Torabi</li><li><b>Elastic settlement of square footings on a two-layer deposit</b><br/>S. S. Razouki and D. A. Al-Zubaidy</li></ul></li></ul> <p>Volume-163 • Issue GE2 April 2010</p>                         |
| 3      | <p><b>Water Management</b></p> <ul style="list-style-type: none"><li>• <b>Papers</b><ul style="list-style-type: none"><li><b>Modelling THMs in water treatment and distribution systems</b><br/>D. Brown; J. R. West; B. J. Curtis and J. Bridgeman</li><li><b>Artificial intelligence model for water resources management</b><br/>H. W. Tang; Y. Lei; B. Lin; Y. L. Zhou and Z. H. Gu</li><li><b>Ranking water transfer projects using fuzzy methods</b><br/>S. L. Razavi Toosi; J. M. V. Samani and A. Koorehpazan Dezfuli</li><li><b>Positive surge in trapezoidal and circular channels</b><br/>S. B. Mitchell</li><li><b>Choke-free flow in circular and ovoidal channels</b><br/>A. R. Vatankhah and M. Bijankhan</li></ul></li></ul> <p>Volume-163 • Issue WM4 April 2010</p>    |
| 4      | <p><b>Transport Road User Charging (Part 2)</b></p> <ul style="list-style-type: none"><li>• <b>Papers</b><ul style="list-style-type: none"><li><b>Travel behaviour response to UK road user charging</b><br/>T. J. Ryley</li></ul></li></ul>   |

**Technologies to measure indicators for road user charging**  
W. Y. Ochieng; M. A. Quddus; R. J. North and R. B. Noland  
**Central London congestion charging: understanding its impacts**  
C. Buckingham; A. R. Doherty; D. C. L. Hawke and S. Vitouladiti  
**Reliability of congestion measures: Stockholm's case**  
C. Morán and K.-L. Bang  
**Road user charging in rural areas: Upper Derwent valley, UK**  
N. Thomopoulos and T. Takama  
Volume-163 • Issue TR2 May 2010

## 5 Maritime Engineering

- **Papers**  
**Numerical simulation of 3D flow around an overlapping cylinder**  
Y. Guo; J. Zhang and L. Zhang  
**Irregular wave propagation at Torres-Mostardas beach, Brazil**  
A. Palha; C. J. E. M. Fortes; P. R. F. Teixeira and L. V. Pinheiro  
**A phase-averaged non-linear wave transformation model**  
D. Villarroel-Lamb  
Volume-163 • Issue MA2 June 2010

## 6 Structures and Buildings

- **Papers**  
**Modular design for high-rise buildings**  
R. M. Lawson and J. Richards  
**Moment redistribution in reinforced concrete beams**  
D. J. Oehlers; M. Haskett; M. S. Mohamed Ali and M. C. Griffith  
**An investigation on global ductility of strengthened RC frames**  
M. H. Arslan; I. Yuksel and M. Y. Kaltakci  
**Shear strength of reinforced concrete slender beams**  
G. Arslan  
Volume-163 • Issue SB3 June 2010

## 7 Water Management

- **Papers**  
**Hydrodynamic modelling in support of flash flood warning**  
Z. Cao, X. Wang; G. Pender and S. Zhang  
**The exploration of latent river pulsing indexes in Taiwan**  
N. F. F. Chou; C.-P. Lee and S.-S. Ton  
**Solar radiation estimation in ungauged catchments**  
M. A. Shamim; R. Remesan; D. Han and A. R. Ghumman  
**Estimation of aquifer parameters from residual drawdowns**  
B. V. N. P. Kambhammettu and J. P. King  
**A numerical study of saline contamination of a coastal aquifer**  
E. D. P. Perera; K. Jinno; A. Tsutsumi and Y. Hiroshiro  
Volume-163 • Issue WM7 July 2010

## 8 Transport

- **Papers**  
**Locating of variable message signs in parking guidance systems**  
Q. Chen and F. Shi  
**Pavement foundation stiffness testing – a new regime**  
M. W. Frost; P. R. Fleming; M. Gordon and J. P. Edwards

**Importance of pavement rehabilitation design in Bangladesh**

M. U. Khan; M. R. Islam and M. F. Alam

**Influence of vehicular interaction on PCU values**

R. M. Brooks

**Road safety management system for Oliveira do Bairro**

A. J. L. Ferreira; J. M. S. A. Jesus and J. S. M. Pinto

Volume-163 • Issue TR3 August 2010

**9 Structures and Buildings**

• **Papers**

**Fire safety of multistorey timber buildings**

A. Frangi and M. Fontana

**Beam–spring model for timber diaphragm and shear walls**

W. C. Pang and D. V. Rosowsky

**Slip modulus of inclined screws in timber–concrete floors**

D. Symons; R. Persaud and H. Stanislaus

**Stiffness of dowel-type fasteners in timber–concrete joints**

A. M. P. G. Dias; H. M. P. Cruz; S. M. R. Lopes and J. W. van de Kuilen

**Moment-resisting bolted timber connections**

F. Lam; M. Gehloff; and M. Closen

**Z-spike rejuvenation of timber railroad bridge members**

R. M. Gutkowski; N. J. Miller; D. W. Radford and J. Balogh

**Whitewood–limecrete joints of supplementary stud-slip angles**

W. Sebastian; J. Sellwood and T. Walworth

Volume-163 • Issue SB4 August 2010

**10 Construction Materials**

• **Briefing**

**Blast tests of fibre-reinforced concrete panels**

S. J. Barnett; S. G. Millard; G. K. Schleyer; and A. Tyas

• **Papers**

**Engineering properties of concrete made with slate waste**

J. E. Oti; J. M. Kinuthia; J. Bai; R. Delpak and D. G. Snelson

**Recycling of metamorphic rock waste in ecological cement**

Y. Ding; S. Jalali and C. Niederegger

**Use of cement kiln dust in blended cement concretes**

M. Maslehuddin; O. S. B. Al-Amoudi; M. Kalimur Rahman; M. Shameem and M. Ibrahim

**Sustainable soil stabilisation with blastfurnace slag – a review**

R. M. Nidzam and J. M. Kinuthia

**Microwave vitrification for lightweight aggregate manufacture**

J. P. Robinson; A. R. Parry; J. R. A. Grenfell and N. Ghazireh

**Effects of heat and mixing time on self-compacting concrete**

S. Al-Martini and M. Nehdi

Volume-163 • Issue CM3 August 2010

**11 Ground Improvement**

• **Papers**

**Use of biological approach for ground improvement**

A. Ahmed and I. Hussain

**Geotechnical properties of sediment subjected to ultrasound**

R. Meriggi and M. Del Fabbro

**Stabilisation of clayey soils with industrial by-products: part A**

A. Wilkinson; A. Haque and J. Kodikara

**Stabilisation of clayey soils with industrial by-products: part B**

A. Wilkinson; A. Haque and J. Kodikara

**Development of stabilised soils for construction applications**

K. M. A. Hossain

Volume-163 • Issue GI3 August 2010

**12 Energy**

• **Papers**

**Tidal turbine deployment in the Bristol Channel: a case study**

Miles Willis; Ian Masters; Sara Thomas; Rebecca Gallie; Jo Loman; Andy Cook; Reza Ahmadian; Roger Falconer; Binliang Lin; Guanghai Gao; Mark Cross; Nick Croft; Alison Williams; Medzid Muhasilovic; Ian Horsfall; Rob Fidler; Chris Wooldridge; Ian Fryett; Paul Evans; Tim O'Doherty; Daphne O'Doherty and Allan Mason-Jones

**Hydro-environmental modeling of proposed Severn barrage, UK**

Reza Ahmadian; Roger Falconer and Binliang Lin

**Considerations of a horizontal axis tidal turbine**

Tim O'Doherty; Allan Mason-Jones; Daphne M. O'Doherty; Paul S. Evans; C. F. Wooldridge and Ian Fryett

**Lerwick district heating scheme Shetland Islands, UK**

Neville Adrian Martin and William Spence

Volume-163 • Issue EN3 August 2010

**13 Geotechnical Engineering**

• **Papers**

**Effects of granular columns in compacted fills**

V. Sivakumar; J. L. Boyd; J. A. Black and J. A. McNeil

**Pull-in force predictions for horizontal directional drilling**

A. C. D. Royal; M. A. Polak; C. D. F. Rogers and D. N. Chapman

**Finite-element analysis of secant pile wall installation**

L. S. Bryson and D. G. Zapata-Medina

**Performance of rigid-flexible-pile foundation with cushion**

K. Liu; X. Xie and H. Liu

**Predicting soil swelling behaviour from specific surface area**

Y. Yukselen-Aksoy and A. Kayaon

Volume-163 • Issue GE4 August 2010