

**Proceedings of the Institution of Civil Engineers UK, Volume 163,
2010 (Unpublished List)**

Sr. No. Main Topics

1. Engineering and Computational Mechanics

Papers

Ship impact on offshore minimum-structure platforms

G. S. Grewal; M. M. K. Lee

Finite-element software for conceptual design

J. Lindemann; G. Sandberg; L. Damkilde

Performance estimation of prestressed concrete box girders

T. Ch. Madhavi; M. Sekar; V. Paramasivam

Modelling heat exchange between RCC dam and reservoir

K. H. Bayagoob; J. Noorzaei; M. S. Jaafar; W. A. Thanoon; A. A. Abdulrazeg

Modelling of reinforced concrete structures in fire

Z. Huangon

Volume-163 • Issue EM1, March 2010

2. Geotechnical Engineering

Papers

Design and performance of a basement in Norwich, UK

A. Bowden; A. Lees

Settlement of piled foundations using equivalent raft approach

N. T. Dung; S. G. Chung; S. R. Kim

Effect of material uncertainty on stochastic response of dams

K. Hacıfendioğlu

The influence of moisture on sandstone properties in Iran

M. Zare Naghadehi; R. KhaloKakaie; S. R. Torabi

Elastic settlement of square footings on a two-layer deposit

S. S. Razouki; D. A. Al-Zubaidy

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3. Water Management

Papers

Modelling THMs in water treatment and distribution systems

D. Brown; J. R. West; B. J. Courtis; J. Bridgeman

Artificial intelligence model for water resources management

H. W. Tang; Y. Lei; B. Lin; Y. L. Zhou; Z. H. Gu

Ranking water transfer projects using fuzzy methods

S. L. Razavi Toosi; J. M. V. Samani; A. Koorehpazan Dezfuli

Positive surge in trapezoidal and circular channels

S. B. Mitchell

Choke-free flow in circular and ovoidal channels

A. R. Vatankhah; M. Bijankhan

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4. **Transport Road User Charging (part 2)**

Papers

Travel behaviour response to UK road user charging

T. J. Ryley

Technologies to measure indicators for road user charging

W. Y. Ochieng; M. A. Quddus; R. J. North; R. B. Noland

Central London congestion charging: understanding its impacts

C. Buckingham; A. R. Doherty; D. C. L. Hawke; S. Vitouladiti

Reliability of congestion measures: Stockholm's case

C. Morán; K.-L. Bang

Road user charging in rural areas: Upper Derwent valley, UK

N. Thomopoulos; T. Takama

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5. **Maritime Engineering**

Papers

Numerical simulation of 3D flow around an overlapping cylinder

Y. Guo; J. Zhang; L. Zhang

Irregular wave propagation at Torres-Mostardas beach, Brazil

A. Palha; C. J. E. M. Fortes; P. R. F. Teixeira; L. V. Pinheiro

A phase-averaged non-linear wave transformation model

D. Villarreal-Lamb

Volume-163 • Issue MA2, June 2010

6. **Structures and Buildings**

Papers

Modular design for high-rise buildings

R. M. Lawson; J. Richards

Moment redistribution in reinforced concrete beams

D. J. Oehlers; M. Haskett; M. S. Mohamed Ali; M. C. Griffith

An investigation on global ductility of strengthened RC frames

M. H. Arslan; I. Yuksel; M. Y. Kaltakci

Shear strength of reinforced concrete slender beams

G. Arslan

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7. **Water Management**

Papers

Hydrodynamic modelling in support of flash flood warning

Z. Cao; X. Wang; G. Pender; S. Zhang

The exploration of latent river pulsing indexes in Taiwan

N.-F. F. Chou; C.-P. Lee; S.-S. Ton

Solar radiation estimation in ungauged catchments

M. A. Shamim; R. Remesan; D. Han; A. R. Ghuman

Estimation of aquifer parameters from residual drawdowns

B. V. N. P. Kambhammettu; J. P. King

A numerical study of saline contamination of a coastal aquifer

E. D. P. Perera; K. Jinno; A. Tsutsumi; Y. Hiroshiro

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8. Transport

Papers

Locating of variable message signs in parking guidance systems

Q. Chen; F. Shi

Pavement foundation stiffness testing – a new regime

M. W. Frost; P. R. Fleming; M. Gordon; J. P. Edwards

Importance of pavement rehabilitation design in Bangladesh

M. U. Khan; M. R. Islam; 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; J. S. M. Pinto

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9. Structures and Buildings

Papers

Fire safety of multistorey timber buildings

A. Frangi; M. Fontana

Beam–spring model for timber diaphragm and shear walls

W. C. Pang; D. V. Rosowsky

Slip modulus of inclined screws in timber–concrete floors

D. Symons; R. Persaud; H. Stanislaus

Stiffness of dowel-type fasteners in timber–concrete joints

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

Moment-resisting bolted timber connections

F. Lam; M. Gehloff; M. Cloßen

Z-spike rejuvenation of timber railroad bridge members

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

Whitewood–limecrete joints of supplementary stud-slip angles

W. Sebastian; J. Sellwood; T. Walworth

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10. Construction Materials

Briefing

Blast tests of fibre-reinforced concrete panels

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

Papers

Engineering properties of concrete made with slate waste

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

Recycling of metamorphic rock waste in ecological cement

Y. Ding; S. Jalali; C. Niederegger

Use of cement kiln dust in blended cement concretes

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

Sustainable soil stabilisation with blastfurnace slag – a review

R. M. Nidzam; J. M. Kinuthia

Microwave vitrification for lightweight aggregate manufacture

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

Effects of heat and mixing time on self-compacting concrete

S. Al-Martini; M. Nehdi

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11. Ground Improvements

Papers

Use of biological approach for ground improvement

A. Ahmed; I. Hussain

Geotechnical properties of sediment subjected to ultrasound

R. Meriggi; M. Del Fabbro

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

A. Wilkinson; A. Haque; J. Kodikara

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

A. Wilkinson; A. Haque; J. Kodikara

Development of stabilised soils for construction applications

K. M. A. Hossain

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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; Allan Mason-Jones

Hydro-environmental modeling of proposed Severn barrage, UK

Reza Ahmadian; Roger Falconer; Binliang Lin

Considerations of a horizontal axis tidal turbine

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

Lerwick district heating scheme Shetland Islands, UK

Neville Adrian Martin; William Spence

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13. Geotechnical Engineering

Papers

Effects of granular columns in compacted fills

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

Pull-in force predictions for horizontal directional drilling

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

Finite-element analysis of secant pile wall installation

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

Performance of rigid-flexible-pile foundation with cushion

K. Liu; X. Xie; H. Liu

Predicting soil swelling behaviour from specific surface area

Y. Yukselen-Aksoy; A. Kayaon

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14. Urban Design and Planning

Briefings

Energy and the built environment

Y. Rydin; S. Thomas; J. Beddington

Holistic assessment of sustainable urban development

P. Paranagamage; A. Price; F. Khandokar

Papers

Land use as a sustainability indicator for Arab cities

N. I. Mohareb

Retrofitting the city: reuse of non-domestic buildings

P. Femenías; C. Fudge

Urban air pollution and mitigation options in Sri Lanka

B. Perera; R. Emmanuel; S. Nandasena

Urbanwords

Rob Cowan

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15. Water Management

Papers

Coagulation and disinfection in water treatment using Moringa

T. Ahmed; R. Kanwal; M. Hassan; N. Ayub; M. Scholz; W. McMinn

Seamless pressure-deficient water distribution system model

T. T. Tanyimboh; A. B. Templeman

The role of trunk mains in discolouration

P. S. Husband; J. Whitehead; J. B. Boxall

Modelling systems of reservoirs using structured Markov chains

J. Piantadosi; P. G. Howlett; N. G. Bean; S. Beecham

River modelling and flood mitigation in a Belgian catchment

B. Khuat Duy; P. Archambeau; B. J. Dewals; S. Erpicum; M. Pirotton

The end depth ratio and principal component analysis

M. Sterling; S. Sharifi; D. W. Knight

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16. Geotechnical Engineering

Papers

Driven pile construction control procedures and design

C. Roohnavaz

Behaviour of an over-length pile in layered soils

J.-J. Wang

Strain-rate effect on consolidation behaviour of Ariake clay

R. Jia; J.-C. Chai; T. Hino; Z.-S. Hong

Design and performance of retaining walls

H. Roscoe; D. Twine

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17. Structures and Buildings

Papers

Reinforced jet-grouted piles. Part 1: analysis and design

M. N. Pavlović; D. M. Cotsovos; M. M. Dedić; A. Savidu

Reinforced jet-grouted piles. Part 2: materials and tolerances

M. N. Pavlović; D. M. Cotsovos; M. M. Dedić; A. Savidu

Shear connections in prestressed beams with precast slabs

C.-H. Chung; C.-S. Shim; B.-H. Hyun; Y.-J. Kim

Strengthening masonry infill walls with reinforced plaster

S. Altın; Ö. Anıl; Y. Koprman; Ç. Belgin

Optimal prestressing and configuration of stayed columns

D. Saito; M. A. Wadee

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18. Ground Improvement

Papers

Evaluation of long-term behaviours of geogrids: a review

H.-Y. Jeon

Experimental investigation of installation damage for geogrids

H.-Y. Jeon; A. Bouazza

Plane strain FE analysis of arching in a piled embankment

Y. Zhuang; E. A. Ellis; H. S. Yu

Finite-element study of arching behaviour in reinforced fills

V. J. Potts; L. Zdravkovic

Extensible geosynthetics and stone-column-reinforced soil

K. Deb; P. K. Basudhar; S. Chandra

Analysis of PVD-enhanced consolidation with soil disturbance

P. Basu; D. Basu; M. Prezzi

Ground improvement for infrastructure projects in Malaysia

V. R. Raju; H. K. Yandamuri

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19. Water Management

Papers

Bend scour protection using riprap

J. P. Martín-Vide; M. Roca; C. A. Alvarado-Ancieta

Sizing of riprap for spill-through abutments

A. H. Cardoso; G. Simarro; O. Le Doucen; A. Schleiss

Time to equilibrium scour at vertical-wall bridge abutments

A. H. Cardoso; C. M. S. Fael

Sill-controlled hydraulic jump in a gradually expanding channel

M. H. Omid; A. Gord-Noshahri; S. Kouchakzadeh

Ski jump design

L. Savic; V. Kuzmanovic; B. Milovanovic

Cedric Masey White and his solution to the pipe flow problem

W. H. Hager

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20. Construction Materials

Briefing

Innovative cladding at the 'Think Tank'

B. Pilbeam; J. Barfield

New regulations will require chemical emissions testing

G. Davies

Papers

European standards in road construction

I. D. Walsh

Concrete performance using locally produced kaolin

W. F. Pan; H. A. Razak

Laboratory and field performance of maturity functions

M. Lachemi; K. M. A. Hossain; C. Anagnostopoulos; A. R. Sabouni

Curing time and behaviour of high-performance concrete

A. Poursaee; C. M. Hansson

Non-linear analysis of polymer-strengthened concrete beams

S. H. Aldajah; A. M. Biddah; A. S. El-Dieb; A. M. Al Omari

Detrimental effects on coastal concrete by *Ulva fasciata*

S. Jayakumar; Raman Saravanane

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21. Management, Procurement and Law

Briefing

Making soldiers' lives better

Peter Smart

Papers

Institutional innovation and financing infrastructure in Xi'an

Willie Tan; Dong Xin

A modern contract: developments in the UK and China

Wayne Lord; Anita Liu; Martin Morgan Tuuli; Shuibo Zhang

Key influences of innovation magnitude and mode

Nicholas Shaw; Dino Bouchlaghem; Peter Demian

Effectiveness of dispute adjudication boards, South Africa

Patrick M. M. Lane; Michael J. Watson

The dispute resolution adviser (DRA) system in Hong Kong

Colin J. Wall; Richard Fellows

A short history for the future of engineering

Harry Macdonald Steels

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22. Engineering History and Heritage

Briefing

Queensway and Kingsway Tunnels, UK

N. Scales

Papers

Historic canals of Maryland and Virginia, USA

R. J. Kapsch

Crossing the Severn estuary, UK: challenges past and present

E. T. Bradley

Inspired by infrastructure

D. B. Stacey

John Monash: promoting early reinforced concrete in Australia

A. Holgate

Thomas Brassey and the railways of Italy

D. Brooke

Pompeii by Robert Harris: an engineering reading

W. P. S. Dias

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23. Energy

Papers

UK microgeneration. Part II: technology overviews

Iain Staffell; Philip Baker; John P. Barton; Noam Bergman; Richard Blanchard; Nigel P. Brandon; Daniel J. L. Brett; Adam Hawkes; David Infield; Christian N. Jardine; Nick Kelly; Matthew Leach; Mardit Matian; Andrew D. Peacock; Sohasini Sudtharalingam; Bridget Woodman

Early experiences with UK round 1 offshore wind farms

Y. Feng; P. J. Tavner; H. Long

Statistics of wind farm power output: methods and applications

Annelies Gerber; Janaka Bandara Ekanayake ; Nicholas Jenkins

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24. Urban Design and Planning

Briefing

Challenging lock-in through urban energy systems

Y. Rydin; P. Devine-Wright; C. Goodier; S. Guy; L. Hunt; J. Watson

Strategies for designing a green built environment

K. Yeang

Papers

Dilemmas in developing a sustainable built environment index

Y. Rydin; S. Maguire; P. Austin

Planning for peak oil: learning from Cuba's 'special period'

E. Piercy; R. Granger; C. Goodier

Stumbling blocks on the Hydrogen road in Norway

A. Kårstein

Planning urban energy trajectories: London and Barcelona

A. Maassen

Retrofitting suburbia: is the compact city feasible?

L. Rice

Housing and sustainability: demolition or refurbishment?

A. Power

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25. Structures and Buildings

Papers

Current static design guidance for hollow-section joints

X.-L. Zhao, J. Wardenier, J. A. Packer and G. J. Vegte

Effect of material properties on hollow section performance

J. A. Packer, S. P. Chiew, R. Tremblay and G. Martinez-Saucedo

Structural design of elliptical hollow sections: a review

T. M. Chan, L. Gardner and K. H. Law

Castings in tubular structures – the state of the art

S. Herion, J.-C. deOliveria, J. A. Packer, C. Christopoulos and M. G. Gray

Tubular Structures in China: state of the art and applications

Z. Shen, Y. Chen, W. Wang and Zhao

FE analysis for welded hollow-section joints and bolted joints

G. J. Van der Vegta, J. Wardenier and R. S. Puthli

Re-evaluation of the moment capacity of CHS joints

G. J. Van der Vegta, J. Wardenier, X. D. Qian and Y. S. Choo

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26. Maritime Engineering

Briefings

UK Marine Management Organization

J. Cross

Dunwich coastal protection demonstration project

A. Hawes

Papers

Final closure of the Saemangeum tidal dike, South Korea

J. W. Ha, D. Eo, K. O. Kim and B. H. Choi

Manifa field causeway, Saudi Arabia

D. Close, O. al Dakhil, D. Brett and R. Albarillo

Management of dredged material in the port of Huelva, Spain

P. Garcia Navarro

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27. Engineering and Computational Mechanics

Papers

Jean-Baptiste Belanger: hydraulic engineer and academic

H. Chanson

Revisiting a flood simulation model based on PIC techniques

R. W. K. Cheung and S. Shao

Lattice Boltzmann method for open-channel flows

J. G. Zhou, H. Liu, S. Shafai, Y. Peng and R. Burrows

Finite-size Lyapunov exponents: a new tool for lake dynamics

G. Karolyi, M. Pattantyus-Abraham, T. Kramer, J. Jozsa and T. Tel

Sloshing in concrete cylindrical tanks subjected to earthquake

K. Shaverdiani, A. Rahai and F. Khoshnoudian

Object-oriented programming and the extended finite-element method

R. Chamrova and B. Patzak

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