

# Spotlight on Structures

Research Journal of The Institution of Structural Engineers

In this section we shine a spotlight on papers recently published in *Structures* – the Research Journal of The Institution of Structural Engineers.

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## Articles in press

The following articles have recently been made available online:

### Bending Moment-Axial Force-Curvature Interactions for Metal Beam-Column Sections

J.A. Rodriguez-Gutierrez and J. Dario Aristizabal-Ochoa, School of Mines, National University, Medellin, Colombia

<http://dx.doi.org/10.1016/j.istruc.2017.03.003>

### Splice strength of deformed steel bars embedded in recycled aggregate concrete

M. John Robert Prince<sup>a</sup>, Govind Gaurav<sup>b</sup> and Bhupinder Singh<sup>b</sup>

<sup>a</sup> Department of Civil Engineering, St. Xavier's Catholic College of Engineering, Chunkankadai, Nagercoil, Tamil Nadu, India

<sup>b</sup> Department of Civil Engineering, Indian Institute of Technology Roorkee, Uttarakhand, India

<http://dx.doi.org/10.1016/j.istruc.2017.03.001>

### Behavior of Concrete Filled Elliptical Steel Tubular Deep Beam under Bending-Shear

Kojiro Uenaka<sup>a</sup> and Hisao Tsunokake<sup>b</sup>

<sup>a</sup> Department of Civil Engineering, Kobe City College of Technology, Nishi, Kobe, Japan

<sup>b</sup> Department of Urban Engineering, Osaka City University, Sumiyoshi, Osaka, Japan

<http://dx.doi.org/10.1016/j.istruc.2017.02.002>

### Optimizing the Cross-Sectional Shapes of Extruded Aluminium Structural Members for Unifized Curtain Wall Facades

Adam D. Lee<sup>a,b</sup>, Paul Shepherd<sup>b</sup>, Mark C. Evernden<sup>a</sup> and David Metcalfe<sup>c</sup>

<sup>a</sup> Department of Architecture and Civil Engineering, University of Bath, Bath, UK

<sup>b</sup> PTCC Facade Design, Makati City, Metro Manila, Philippines

<sup>c</sup> Centre for Window and Cladding Technology (CWCT), Bath, UK

<http://dx.doi.org/10.1016/j.istruc.2017.03.002>

### Nonlinear Dynamic Behavior of Cable Nets Subjected to Wind Loading

Isabella Vassilopoulou<sup>a</sup>, Francesco Petrin<sup>b</sup> and Charis J. Gantes<sup>c</sup>

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<http://dx.doi.org/10.1016/j.istruc.2017.03.004>

## What are you reading?

The following are the most popular articles on the Members' portal at the time of press:

### Behaviour and Design of Connections for Demountable Steel and Composite Structures

Brian Uy, Vipulkumar Patel, Dongxu Li and Farhad Aslani

February 2017, Volume 9, Pages 1–12

### Influence of Ultra-high Strength Concrete on Circular Concrete-filled Dual Steel Columns

Manuel L. Romero, C. Ibañez, A. Espinos, J.M. Portolés and A. Hospitaler

February 2017, Volume 9, Pages 13–20

### Partial safety factor for reinforcement

Andrew Beeby and Paul Jackson

February 2016, Volume 5, Pages 101–111

### Experimental testing of grouted connections for offshore substructures: A critical review

Paul Dallyn, Ashraf El-Hamalawi, Alessandro Palmeri and Robert Knight

August 2015, Volume 3, Pages 90–108

### Hot-Rolled Steel and Steel-Concrete Composite Design Incorporating Strain Hardening

L. Gardner, X. Yun, L. Macorini and M. Kucukler

February 2017, Volume 9, Pages 21–28

### Structural Behaviour of Beam to Concrete-filled Elliptical Steel Tubular Column Connections

J. Yang, T. Sheehan, X. Dai and D. Lam

February 2017, Volume 9, Pages 41–52

### Numerical Modelling of Composite Floor Slabs Subject to Large Deflections

M.M. Florides and K.A. Cashell

February 2017, Volume 9, Pages 112–122

### Static and fatigue performance of resin injected bolts for a slip and fatigue resistant connection in FRP bridge engineering

Behrouz Zafari, Jawed Qureshi, J. Toby Mottram and Rusi Rusev

August 2016, Volume 7, Pages 71–84

### Dynamic Time-history Elastic Analysis of Steel Frames Using One Element per Member

Si-Wei Liu, Rui Bai and Siu-Lai Chan

November 2016, Volume 8, Part 2, Pages 300–309

### Performance of Partially Encased Composite Beams Under Static and Cyclic Bending

Yiyi Chen, Wei Li and Cheng Fang

February 2017, Volume 9, Pages 29–40