

# 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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## New issue available

The latest issue of *Structures* (Volume 16, November 2018) is now available to read at [www.sciencedirect.com/journal/structures/vol/16](http://www.sciencedirect.com/journal/structures/vol/16).

The issue features the following articles:

Article title	Authors	Available at:
<b>Novel Digitally-manufactured Wooden Beams for Vibration Reduction</b>	C. Málaga-Chuquitaype and J. Ilkanaev	<a href="https://doi.org/10.1016/j.istruc.2018.08.003">https://doi.org/10.1016/j.istruc.2018.08.003</a>
<b>Vibration-based Structural Damage Detection Using Twin Gaussian Process (TGP)</b>	Saeid Taleai, Ali Beitollahi, Saeid Moshirabadi and Milad Fallahian	<a href="https://doi.org/10.1016/j.istruc.2018.08.006">https://doi.org/10.1016/j.istruc.2018.08.006</a>
<b>Tailored Buckling Constrained by Adjacent Members</b>	Lawrence Virgin	<a href="https://doi.org/10.1016/j.istruc.2018.08.005">https://doi.org/10.1016/j.istruc.2018.08.005</a>
<b>Influence of Separation Interference Method on Aerodynamic Responses of a Pentagonal Shaped Bridge Deck</b>	Md. Naimul Haque and Hiroshi Katsuchi	<a href="https://doi.org/10.1016/j.istruc.2018.08.010">https://doi.org/10.1016/j.istruc.2018.08.010</a>
<b>Numerical Studies on the Buckling Behaviour of Cable-stiffened Steel Columns With Pin-connected Crossarm Systems</b>	Pengcheng Li, Ce Liang, Jun Yuan and Ke Qiao	<a href="https://doi.org/10.1016/j.istruc.2018.08.008">https://doi.org/10.1016/j.istruc.2018.08.008</a>
<b>Analysis of Dampers for Stay Cables Using Non Linear Beam Elements</b>	Jean-Marc Battini	<a href="https://doi.org/10.1016/j.istruc.2018.08.009">https://doi.org/10.1016/j.istruc.2018.08.009</a>
<b>Nonlinear Finite Element Analysis of B-C Connections: Influence of the Column Axial Load, Jacket Thickness, and Fiber Dosage</b>	Mohammad A. Alhassan, Rajai Z. Al-Rousan, Layla K. Amaireh and Muneer H. Barfed	<a href="https://doi.org/10.1016/j.istruc.2018.08.011">https://doi.org/10.1016/j.istruc.2018.08.011</a>
<b>Controlled-rocking Braced Frame Bearing on a Shallow Foundation</b>	Navid Rahgozar, Nima Rahgozar and Abdolreza S. Moghadam	<a href="https://doi.org/10.1016/j.istruc.2018.08.013">https://doi.org/10.1016/j.istruc.2018.08.013</a>
<b>Evaluation of the Bond Strengths Between Concrete and Reinforcement as a Function of Recycled Concrete Aggregate Replacement Level</b>	Mahdi Arezoumandi, Amanda R. Steele and Jeffery S. Volz	<a href="https://doi.org/10.1016/j.istruc.2018.08.012">https://doi.org/10.1016/j.istruc.2018.08.012</a>
<b>Investigation of Wood Shear Walls Subjected to Lateral Load</b>	Shideh Shadravan and Christopher C. Ramseyer	<a href="https://doi.org/10.1016/j.istruc.2018.08.007">https://doi.org/10.1016/j.istruc.2018.08.007</a>
<b>Critical Inter-Load Spacing for Hogging Moments in Three-Span Bridges</b>	C.C. Caprani	<a href="https://doi.org/10.1016/j.istruc.2018.08.014">https://doi.org/10.1016/j.istruc.2018.08.014</a>
<b>Behavior of Reinforced Lightweight Aggregate Concrete-filled Circular Steel Tube Columns Under Axial Loading</b>	Baraa J.M. AL-Eliwi, Talha Ekmekyapar, Mohanad I.A. AL-Samarai and M. Hanifi Dogru	<a href="https://doi.org/10.1016/j.istruc.2018.09.001">https://doi.org/10.1016/j.istruc.2018.09.001</a>
<b>Measuring joint opening displacement between model shield-tunnel segments for reduced-scale model tests</b>	Jie Wang, Hongqing Liu and Huabei Liu	<a href="https://doi.org/10.1016/j.istruc.2018.09.003">https://doi.org/10.1016/j.istruc.2018.09.003</a>

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<b>Shear Strength Models for Reinforced Concrete Slender Beams: A Comparative Study</b>	Subhan Ahmad and Pradeep Bhargava	<a href="https://doi.org/10.1016/j.istruc.2018.09.004">https://doi.org/10.1016/j.istruc.2018.09.004</a>
<b>Improvement in the Ductility of Over-reinforced NSC and HSC Beams by Confining the Compression Zone</b>	Heba A. Mohamed	<a href="https://doi.org/10.1016/j.istruc.2018.09.005">https://doi.org/10.1016/j.istruc.2018.09.005</a>
<b>The Effect of Cutting Openings on the Behavior of Two-way Solid Loaded Slabs</b>	Mona Mahlis, Ata Elkareim Shoeib, Sherif Abd Elnaby and Alaa Sherif	<a href="https://doi.org/10.1016/j.istruc.2018.09.002">https://doi.org/10.1016/j.istruc.2018.09.002</a>
<b>Improvement in first-order reliability method using an adaptive chaos control factor</b>	Mohammad Amin Roudak, Mohsen Ali Shayanfar and Mohammad Karamloo	<a href="https://doi.org/10.1016/j.istruc.2018.09.010">https://doi.org/10.1016/j.istruc.2018.09.010</a>
<b>Design for lateral stability of slender timber beams considering slip in the lateral bracing system</b>	Anders Klasson, Roberto Crocetti, Ivar Björnsson and Eva Frühwald Hansson	<a href="https://doi.org/10.1016/j.istruc.2018.09.007">https://doi.org/10.1016/j.istruc.2018.09.007</a>
<b>Hysteretic Behaviour of Asymmetrical Friction Connections Using Brake Pads of D3923</b>	Jose Christian Chanchi Golondrino, Gregory Anthony MacRae, James Geoffrey Chase, Geoffrey William Rodgers and George Charles Clifton	<a href="https://doi.org/10.1016/j.istruc.2018.09.012">https://doi.org/10.1016/j.istruc.2018.09.012</a>
<b>Tensile Membrane Action of Lightly-reinforced Rectangular Composite Slabs in Fire</b>	Ian Burgess and Mesut Sahin	<a href="https://doi.org/10.1016/j.istruc.2018.09.011">https://doi.org/10.1016/j.istruc.2018.09.011</a>
<b>A study on the parameters influencing flexural bond stress in reinforced concrete</b>	Rakesh Siempu and Rathish Kumar Pancharathi	<a href="https://doi.org/10.1016/j.istruc.2018.09.006">https://doi.org/10.1016/j.istruc.2018.09.006</a>
<b>Properties and applications of FRP in strengthening RC structures: A review</b>	Y.H. Mughed Amran, Rayed Alyousef, Raizal S.M. Rashid, Hisham Alabduljabbar and C.-C. Hung	<a href="https://doi.org/10.1016/j.istruc.2018.09.008">https://doi.org/10.1016/j.istruc.2018.09.008</a>
<b>Behavior of reinforced concrete beams strengthened with CFRP rod panels CRP 195</b>	Akram Jawdhari, Issam Harik and Amir Fam	<a href="https://doi.org/10.1016/j.istruc.2018.09.014">https://doi.org/10.1016/j.istruc.2018.09.014</a>
<b>Optimum Plastic Design of Moment Resisting Frames Using Mechanism Control</b>	Mostafa Fathi Sepahvand, Jalal Akbari and Koichi Kusunoki	<a href="https://doi.org/10.1016/j.istruc.2018.10.002">https://doi.org/10.1016/j.istruc.2018.10.002</a>
<b>Innovative use of steel plates to strengthen flange openings in reinforced concrete T-beams</b>	Khattab Saleem Abdul-Razzaq and Mais Malallah Abdul-Kareem	<a href="https://doi.org/10.1016/j.istruc.2018.10.005">https://doi.org/10.1016/j.istruc.2018.10.005</a>
<b>Optimum Design of Stay Cables of Steel Cable-stayed Bridges Using Nonlinear Inelastic Analysis and Genetic Algorithm</b>	Manh-Hung Ha, Quoc-Anh Vu and Viet-Hung Truong	<a href="https://doi.org/10.1016/j.istruc.2018.10.007">https://doi.org/10.1016/j.istruc.2018.10.007</a>
<b>Experimental and numerical investigations of rigid IPE beam connections with drilled flange and web stiffener</b>	M. Tahamouli Roudsari, H. Jamshidi K., M. Torkaman and S. Ganji M.	<a href="https://doi.org/10.1016/j.istruc.2018.10.008">https://doi.org/10.1016/j.istruc.2018.10.008</a>
<b>Seismic Soil-structure Interaction: A State-of-the-Art Review</b>	Vishwajit Anand and S.R. Satish Kumar	<a href="https://doi.org/10.1016/j.istruc.2018.10.009">https://doi.org/10.1016/j.istruc.2018.10.009</a>
<b>Effect of thickness on the behaviour of axially loaded back-to-back cold-formed steel built-up channel sections - Experimental and numerical investigation</b>	Krishanu Roy, Tina Chui Huon Ting, Hieng Ho Lau and James B.P. Lim	<a href="https://doi.org/10.1016/j.istruc.2018.09.009">https://doi.org/10.1016/j.istruc.2018.09.009</a>
<b>Seismic Risk Assessment of a 2-storey Steel-sheathed CFS Building Considering Different Sources of Uncertainty</b>	Liqiang Jiang and Jihong Ye	<a href="https://doi.org/10.1016/j.istruc.2018.10.010">https://doi.org/10.1016/j.istruc.2018.10.010</a>
<b>Monotonic and cyclic performance of threaded reinforcement splices</b>	D.V. Bompa and A.Y. Elghazouli	<a href="https://doi.org/10.1016/j.istruc.2018.11.009">https://doi.org/10.1016/j.istruc.2018.11.009</a>
<b>Finite Element Modeling and Design of Single Angle Member Under Bi-axial Bending</b>	A. Hussain, Yao-Peng Liu and Siu-Lai Chan	<a href="https://doi.org/10.1016/j.istruc.2018.11.001">https://doi.org/10.1016/j.istruc.2018.11.001</a>
<b>Experimental evaluation of rigid connection with reduced section and replaceable fuse</b>	Allah Reza Moradi Garoosi, Mehrzad Tahamouli Roudsari and Behrokh Hosseini Hashemi	<a href="https://doi.org/10.1016/j.istruc.2018.11.010">https://doi.org/10.1016/j.istruc.2018.11.010</a>