

Spotlight on Structures

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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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Editor's highlights

Editor-in-Chief, Professor Leroy Gardner, has chosen the following highlights:

Design of Composite Cold-Formed Steel Flooring Systems

Pinelopi Kyvelou, Leroy Gardner and David A. Nethercot

<https://doi.org/10.1016/j.istruc.2017.09.006>

Wind Loading of Structures: Framework, Phenomena, Tools and Codification

Giovanni Solari

<https://doi.org/10.1016/j.istruc.2017.09.008>

An assessment framework for sensor-based detection of critical structural conditions with consideration of load uncertainty

Sebastian Rau and Guido Morgenthal

<https://doi.org/10.1016/j.istruc.2017.06.001>

Full issue

Determination of Loading Scenarios on Buildings Due to Column Damage

Carles Colomer Segura, Lotfi Hamra, Marina D'Antimo, Jean-François Demonceau and Markus Feldmann

Estimating Shear Strength of Short Rectangular Reinforced Concrete Columns Using Nonlinear Regression and Gene Expression Programming

S.B. Beheshti Aval, H. Ketabdari and S. Asil Gharebaghi

A Numerical Analysis of the Stress-strain Behavior of Anchorage Elements and Steel Liner of a Prestressed Concrete Containment Wall

Petr Bilyý and Alena Kohoutková

Concrete Stiffened Steel Plate Shear Walls With an Unstiffened Opening

Soheil Shafaei, Farhang Farahbod and Amir Ayazi

Shear Transfer Capacity of Composite Sections in Steel Tubed-Reinforced-Concrete Frames

Dan Gan, Zheng Zhou, Feng Yan and Xuhong Zhou

Ultra-high Strength Concrete on Eccentrically Loaded Slender Circular Concrete-filled Dual Steel Columns

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

Parametric Evaluation of Racking Performance of Platform Timber Framed Walls

R. Dhonju, B. D'Amico, A. Kermani, J. Porteous and B. Zhang

Behaviour of Composite Beams Made Using High Strength Steel

R. Shamass and K.A. Cashell

Hysteretic Behaviour of a Piston Based Self-centering (PBSC) Bracing System Made of Superelastic SMA Bars – A Feasibility Study

A.B.M. Rafiqul Haque and M. Shahria Alam

Ductility considerations for mechanical reinforcement couplers

D.V. Bumpa and A.Y. Elghazouli

CFRP strengthened steel beams: Improvement in failure modes and performance analysis

Sivaganes Selvaraj and Mahendrakumar Madhavan

Optimal prestressing of triple-bay prestressed stayed columns

Jialiang Yu and M. Ahmer Wadee

Nonlinear Static Pushover and Eigenvalue Modal Analyses of Quasi-Isolated Highway Bridges with Seat-Type Abutments

Jie Luo, Larry A. Fahnstock and James M. LaFave

Geometric Nonlinear Analysis of Plane Frames With Generically Nonuniform Shear-deformable Members

Francisco C. de Araujo and Iara S. Ribeiro, Katia I. Silva

Prediction of the Bolt Fracture in Shear Using Finite Element Method

Amir Ahmad Hedayat, Ehsan Ahmadi Afzadi and Amin Iranpour

Impact Statement on "Prestressing in Coventry Cathedral"

Chris Burgoyne and Owen Mitchell

Anisotropic Damage Plasticity Model for Concrete and Its Use in Plastic Hinge Relocation in RC Frames with FRP

M.R. Javanmardi and Mahmoud R. Maheri

Stability of Multiple-crossarm Prestressed Stayed Columns With Additional Stay Systems

Luke Lapira, M. Ahmer Wadee and Leroy Gardner

The Effect of Shear and Lap Arrangement on Reinforcement Lap Strength

Marianna Micallef and Robert Vollum

Experimental and Numerical Dynamic Analyses of Hollow Core Concrete Floors

Fangzhou Liu, Jean-Marc Battini, Costin Pacoste and Alexandra Granberg

Mathematical Model to Determine the Weld Resistance Factor of Asymmetrical Strength Results

M. Dundu