In this section we shine a spotlight on papers recently published in Structures – the Research Journal of The Institution of Structural Engineers. Structures is a collaboration between the Institution and Elsevier, publishing internationally-leading research across the full breadth of structural engineering which will benefit from wide readership by academics and practitioners.

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**Spotlight on Structures**

**Structures prizes – shortlists announced**
The following papers have been shortlisted for the Structures prizes in 2018. The winners of each prize will be unveiled at the Institution’s People and Papers Awards ceremony in June. The prizes are judged by the Institution’s Research Panel.

**Best Research Paper**
- Structural Behaviour of Beam to Concrete-filled Elliptical Steel Tubular Column Connections
  - J. Yang, T. Sheehan, X. Dai and D. Lam
  - Volume 9 (2017), pp. 41–52
  - https://doi.org/10.1016/j.istruc.2016.09.005

- Moment-curvature-thrust relationships for beam-columns
  - Andrew Liew, Leroy Gardner and Philippe Block
  - https://doi.org/10.1016/j.istruc.2017.05.005

- Wind Loading of Structures: Framework, Prediction, Tools and Codification
  - Giovanni Solari
  - https://doi.org/10.1016/j.istruc.2017.09.008

- Predicting effects of design variables on modal responses of CLT floors
  - Ebenezer Ussher, Kaveh Arjomandi, Jan Weckendorf and Ian Smith

**Best Research into Practice Paper**
- Hot-Rolled Steel and Steel-Concrete Composite Design Incorporating Strain Hardening
  - L. Gardner, X. Yun, L. Macorini and M. Kucukler
  - Volume 9 (2017), pp. 21–28
  - https://doi.org/10.1016/j.istruc.2016.08.005

- Full-scale Tests of Stabilized and Unstabilized Extended Single-plate Connections
  - Kristen Thomas, Robert G. Driver, Steven A. Oosterhof and Logan Callele
  - Volume 10 (2017), pp. 49–58
  - https://doi.org/10.1016/j.istruc.2016.12.005

- Prestressing in Coventry Cathedral
  - Chris Burgoyne and Owen Mitchell
  - https://doi.org/10.1016/j.istruc.2017.04.003

- Stability of Multiple-crossarm Prestressed Stayed Columns with Additional Stay Systems
  - https://doi.org/10.1016/j.istruc.2017.09.010

**Articles in press**
The following articles have recently been made available online:

- Bar Layout and Weight Optimization of Special RC Shear Wall
  - Seyed Rohollah Hoseini Vaez and Hamidreza Shahnorad Oomi
  - https://doi.org/10.1016/j.istruc.2018.03.005

- Building in concrete with an ultra-lightweight knitted stay-in-place formwork: Prototype of a concrete shell bridge
  - M. Popescu, L. Reiter, A. Liew, T. Van Mele, R.J. Flatt and P. Block
  - https://doi.org/10.1016/j.istruc.2018.03.001

- Hydrodynamic pressures in contraction joints including waterstops on seismic response of high arch dams
  - A. Zeinizadeh, H. Mirzabozorg, A. Noorzad and A. Amirpour
  - https://doi.org/10.1016/j.istruc.2018.01.005

- FRP Strengthened RC Rectangular Columns Under Combined Axial and Lateral Loading: Analytical Study
  - Sreelatha Vuggumudi and P. Alagusundaramoorthy
  - https://doi.org/10.1016/j.istruc.2018.02.007

- Ultimate Strength Analysis of Laminated Composite Sandwich Plates
  - Anish Ajay Kumar
  - https://doi.org/10.1016/j.istruc.2018.02.004

- Exploring Bridge Dynamics for Ultra-high-speed, Hyperloop, Trains
  - Nicholas A. Alexander and Mohammad M. Koshania
  - https://doi.org/10.1016/j.istruc.2018.02.006

- New modifying truss model and numerical simulation of steel fiber reinforced concrete under pure torsion
  - Lei Hui and Francisco López-Almansa
  - https://doi.org/10.1016/j.istruc.2018.02.001

- On Structural Behavior of a Funicular Concrete Polyhedral Frame Designed by 3D Graphic Statics
  - Mohammad Bolhassani, Masoud Akbarzadeh, Mehrad Mahnia and Ramtin Taherian

- Staying RC in precast units: A novel self-stressing approach
  - M. Tahamouli Roudsari, M.B. Eslamimanesh, Anish Ajay Kumar, A. Amirpour, M. Popescu, M. Rehman and A. Noorzad
  - https://doi.org/10.1016/j.istruc.2018.02.004

- Experimental Assessment of Retrofitting RC Footings with ADAS and TADAS Yielding Dampers
  - M. Tahamouli Roudsari, M.B. Eslamimanesh, A.R. Entezari, O. Noori and M. Torkaman
  - https://doi.org/10.1016/j.istruc.2018.02.005

- Moment Resisting Frames with ADAS and TADAS Yielding Dampers
  - M. Tahamouli Roudsari, M.B. Eslamimanesh, A.R. Entezari, O. Noori and M. Torkaman
  - https://doi.org/10.1016/j.istruc.2018.02.005