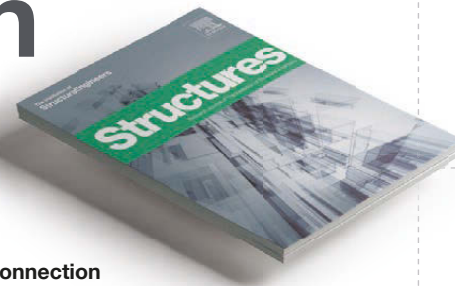


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Spotlight on *Structures*



Read the latest issue

The latest issue of *Structures* (Volume 23, February 2020) is available at www.sciencedirect.com/journal/structures/vol/23. Editor-in-Chief, Leroy Gardner, has selected an article on slotted-hole bolted cover-plate connections as his 'Featured Article' from the issue. This will be available free of charge for six months.

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Editor's Featured Article

Experimental study of slotted hole bolted cover-plate connection using full field measurement

Edouard Cavène, Sébastien Durif, Abdelhamid Bouchaïr, Evelyne Toussaint
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This study investigates the ductile failure modes associated to bearing mode for bolted cover-plates with slotted holes on the basis of an experimental program. The strengths from tests are compared to those given by two analytical models based on design standards. Two tested specimens were monitored to observe the local deformations

of the loaded zones at the end-distance of the plates. The deformations are measured using Digital Image Correlation (DIC) technique. Strain maps showed that the behaviour of the plates with slotted holes is very complex combining, in some cases, bending, shear and tension of the loaded part under the bolt. The wealth of information leads to a better

understanding of the behaviour of slotted hole connections until failure and proposes an analysis on the limits of the existing analytical approaches.

→ Read the full paper at <https://doi.org/10.1016/j.istruc.2019.09.003>



(a) E1-1 (Tensions and shearing)



(b) E1-1.5 (Shearing and bearing)



(c) E1-2 (Shearing and bearing)



(d) E2-1 (Tensions and shearing)



(e) E2-1.5 (Shearing and bearing)

Call for papers

Resilience-Based Design for Next-Generation Bridge Design and Construction

Date: 15–16 July 2020

Venue: University of Southampton, UK

Abstract deadline: 15 March 2020

Submit an abstract for the workshop 'Resilience-Based Design for Next-Generation Bridge Design and Construction', dedicated to the broad topics of accelerated, automated and robotic bridge construction. Accepted papers will be published in a special issue of *Structures* following the workshop.

→ For further information, visit www.southampton.ac.uk/engineering/news/events/2020/07/resilience-based-design-bridges.page