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Award-winning paper in 2021.
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Announcement

Bridge Engineering

ice Publishing

Award-winning paper in 2021

Papers published in *Bridge Engineering* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 14 October 2022, ICE president Ed McCann presented an award to the following paper published in *Bridge Engineering* in 2021. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the award.

John Henry Garood King Medal

The John Henry Garood King Medal, awarded to the best paper on bridges, was awarded to Hendy *et al*. (2021).

Abstract

Many steel plate girder bridges today are curved in plan. This is because it is now relatively inexpensive to construct bridges with continuous plan curvature, which is more aesthetic than the traditional series of straight spans kinked at supports, and because many bridges are now built in congested urban areas where complex curved plan alignments are required to thread new infrastructure past the existing. However, design rules have not caught up with this fabrication trend. The design of continuously curved steel plate girder bridges is typically more complex than that for equivalent straight ones. The plan curvature both induces additional stresses in the webs and flanges, reducing overall bending strength, and changes the shear behaviour and resistance of the webs. This paper considers typical steel–concrete composite multi-girder decks with plan curvature and uses the results of an extensive finite-element parametric study to propose new design rules based on modifications to the existing Eurocode rules for straight girders so there is a consistent approach provided for the design of plated girders for all curvatures, including none.

REFERENCE

Hendy CR, Cai M, Martins JP, Ljubinkovic F and da Silva LS (2021) New design rules for plate girders curved in plan. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **174(2)**: 97–112, https://doi.org/10.1680/jbren.19.00057.