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Editorial

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In his editorial earlier this year, Jones (2021) reminded us of the importance of the challenge of sustainability to our industry. Without doubt, a significant area that presents to us in our profession to help reduce carbon in construction is the preservation of existing structures by avoidance of the demolishing and reconstructing of them. This could be the early detection and remediation of deterioration, or reusing them to cater for increasing use such as bridge widening in place of bridge replacement. In this issue of the Bridge Engineering Journal, we have several papers that describe work on existing structures, from analytical work to challenging remedial works on a major suspension bridge, as well as a look at the economic impact of the closure of one major bridge in the UK.

In our first paper in this edition paper, Arundel A *et al*. (2021) present a thorough summary of works that were undertaken on one of Britain's most iconic suspension bridges, the Humber Bridge. The paper provides a thorough summary of work that was undertaken to replace hanger cables on the structure. As well as describing the cable replacement that was undertaken, the paper outlines the results of analytical work that informed the hanger replacement, as well as testing that supported decisions made during the works that also provided useful information for future management of the structure.

Smith A *et al*. (2021) outline the impact of a bridge closure due to failure, fortuitously on the recently constructed Queensferry bridge, neighbouring the Forth Road Bridge that did close for a fairly long period of time in 2015 as a result of a structural failure. Their work investigates the impact by analysing the monetary impact. Noting that the first closure of the Queensferry bridge in 2020 was caused by ice on the cables, the authors include a useful discussion on potential mitigation measures that could be trialled to reduce this occurrence.

In our third paper, Verma X, and Mishara DF, (2021) present the results of analytical work that they undertook on a bridge in New Dehli. Their analysis looks specifically at soil structure interaction on a 156 m long 5 span integral bridge using a nonlinear analysis for soil. Their study presents a useful summary of longitudinal displacements estimated from the analysis.

In our final paper in this issue, Granata MF (2021), present an informative discussion on factors that impact stress build up in bowstring arch bridges with composite decks. Their study focusses on geometry, construction sequence, and creep and shrinkage-induced stresses. Their work includes a discussion on optimisation that could have been implemented during design stages on two bridges in southern Italy, including one that they were appointed to undertake remedial works design.

This edition also includes a useful book review by Collings D, (2021) who provides his thoughts on the fourth edition of Holmes J, and Bekele S. (2021) book *Wind Loading on structures*.

I hope the readership find these papers as interesting and informative as I have in editing this journal. We would encourage readers to submit discussion pieces on these articles through the regular channel. We also would encourage the entire readership to share their experiences in the profession by way of submitting an article to the journal in our regular editions.

Regular readers will be aware that the ICE *Bridge Engineering Journal* are increasingly publishing themed issues. This has been as a result of a strong response from our readership in writing about specific topics that we as an editorial panel have identified. Readers are also reminded that we have opened the opportunity up to the readership to suggest topics for future themed issues, and participate as guest editors in seeing these themed issues through to publication. Further details on this opportunity can be obtained from our journal editor, Kirsten Buchanan, by emailing kirsten.buchanan@icepublishing.com

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