Editorial

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Our profession's continuing search for innovative solutions, continuous improvement, betterment of our digital output and efficiency reinforces the relevance of our *Bridge Engineering* journal in disseminating best practice from around the UK and abroad to our readership. As we embark on another decade, where further new developments will be implemented to our codes of practice and improvements in computer technology will only assist us in delivering innovation and efficiency, this journal will strive to continue to publish the best from the profession. In this edition, we bring five papers that do just that, covering earthquake analysis, scour assessments and deterioration mechanism on concrete bridges.

The paper by Naghibi *et al.* (2020) applies the provisions of the current British standard to near-field earthquakes in soft soil conditions and examines the effect of several well-known destructive earthquakes on the forces generated at deck level. It also examines the effect of considering soil–structure interaction in such an analysis. The paper finds that the estimates of vertical forces using methods employed in the paper were larger than would be estimated using current codes of practice and that considering soil–structure interaction for substructure elements will reduce these design actions.

Bayraktar *et al.* (2020) also examine near-field earthquakes. Their paper investigates the effect of near-fault vertical ground motions on the response of two substantial segmentally constructed, balanced cantilever post-tensioned concrete bridges in Turkey. The models used in the study were validated using ambient vibrations from both bridges modelled in the study. The results obtained illustrate that when designing or assessing structures near faults, the near-fault movements in the horizontal and vertical direction need to be considered so as not to underestimate action effects.

In their paper, Sillick *et al.* (2020) outline the efforts to repair scour on two major viaducts that occurred following Superstorm Sandy in 2012. The problem emerged after this storm exposed timber piles in areas where very soft founding material was present. They describe the evaluation of underpinning options available to them, resulting in their selection of a solution that allowed expedient repair of the scour hollows that developed on these major structures on this crucial route in New Jersey (USA) without disruption to the travelling public.

Koursari and Wallace (2020) present their work to implement measures to safeguard a structure on the A68 in Scotland against scour that resulted from significant meandering of the watercourse it crossed. Their work looked closely at the provisions of BD 97/12 (HA, 2012), showing that its rigorous implementation is essential for watercourse crossings, but also highlights the need to carefully consider its application and whether more detailed assessments of watercourse movements is needed.

In the final paper of this edition of the journal, Yazdani *et al.* (2020) present an interesting observational study of deterioration of several bridges in Texas (USA). Their study reviews four short-span in situ reinforced concrete bridges of a form of construction used widely in Texas in the 1950–1960s. Their work identifies a suite of deterioration mechanisms present in these bridges, some of which relate specifically to the method of constructing these decks.

Regular readers will be aware that the *Bridge Engineering* journal is increasingly publishing themed issues. This has been as a result of a strong response from our readership in writing about specific topics identified by the Editorial Panel.

In September 2019, we opened up the opportunity to the readership to suggest topics for future themed issues and participate as guest editors in seeing these themed issues through to publication. Interested readers are encouraged to bring forward ideas to the Editorial Panel. Further details on this opportunity can be obtained from our Journal Editor, Kirsten Buchanan, by emailing kirsten.buchanan@icepublishing.com

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