Editorial

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It gives me great pleasure to introduce to you this March issue of *Structures and Buildings*. In this issue, there are six excellent papers covering a wide range of structural engineering topics. It is interesting to note that all of the papers, although discussing different topics, provide practical guidance and advice for engineers.

The first and second papers both deal with different issues relating to concrete structures. First, Venkateshwaran and Tan (2020) consider the classical issue of moment redistribution in continuous concrete slabs, this time applied to members with steel fibre reinforcement. Both experimental and analytical research is presented. Then, Singh and Bedi (2020) focus on the shear capacity of concrete beams made from self-consolidating concrete (SCC). SCC is very topical in structural design so this research is of great interest to many engineers, and a useful and practical new analytical model is proposed.

The third paper by Zhang (2020) presents a very interesting experimental study into wind loading on transmission towers. This is identified as a practical and complex issue which requires more research. The paper compares the experimental data with current design practice, and provides very useful guidance for how engineers should tackle this issue. Fang (2020) presents the recent research into externally prestressed beams, specifically focussing on the non-linear analysis of the friction that develops between the external tendon and the deviator. The analysis considers the non-linear stress-strain relationships of concrete, steel and the external tendon are considered.

The fifth and sixth papers in this issue both consider structural elements with dampers. First, He *et al.* (2020), propose a genetic algorithm for neural networks to design intelligent control systems for highway bridges. Their work is focussing on improving the optimisation of performance whilst also

reducing energy consumption. Then, in the final paper, Matin *et al.* (2020), discuss the employment of distributed multiple tuned mass dampers for seismic response control in bridges. A numerical model is developed for concrete and steel truss bridges and methods for locating the distributed multiple tuned mass dampers to improve the structural and seismic performance, are provided.

I am sure that you will find the range and quality of these papers to be both inspiring and useful. As always, comments and discussions from the readers of *Structures and Buildings* are encouraged.

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