Editorial

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This issue of *Structures and Buildings* consists of three technical papers and two book reviews. The first paper, by Yang and Ashour (2012), presents the development of a mechanism analysis to predict the shear capacity of reinforced concrete corbels. Following a comprehensive review of existing models, the authors develop their mechanism analysis based on an idealised assemblage of two rigid blocks either side of the shear failure plane. The concrete material model is based on the rigid perfectly plastic assumption and equilibrium is based on energy principles equating internal work with external work. The resulting shear capacity predictions are shown to be in better agreement with available experimental observations than any of the existing models of reinforced concrete corbel load capacity.

The second paper, by McCarthy *et al.* (2012), reports on the lateral pressure imposed on formwork by fresh self-compacting concrete (SCC). The results of series of control tests on SCC and regular comparative concretes are reported, along with the results of site tests on actual SCC members. These tests consider differing rates of rise of the concrete in the formwork. The results shown that the lateral pressures imposed by SCC on formwork are slightly less than those for comparative concretes. These findings will be of interest to temporary works designers who need guidance on the pressures associated with SCC, a relatively new and increasing popular construction material. The paper concludes with practical recommendations of how SCC may fit within the guidance contained in CIRIA 108 for estimating wet concrete pressures on formwork.

In the first part of the third paper, by Mannini *et al.* (2012), a

technique for the simplification of the classical flutter equations is proposed. The extent of the simplification proposed employs just three of the usual eight flutter coefficients. This technique will provide a quicker and simplified engineering tool that can be used in the early design stages of bridge design. In the second part of the paper, a model is developed to account for the uncertainty in the measurement of self-excited forces in a flutter analysis. This employs Monte Carlo simulation techniques to determine the probability distribution function of the critical wind speed. The techniques proposed in this paper simplify what are complex advanced analysis techniques and so the example of the application of the proposed methods will be particularly helpful for readers wanting to use the techniques.

The issue concludes with two book reviews.

REFERENCES

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