Editorial

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I have been a member of the editorial advisory panel for *Structures and Buildings* for the past five years, initially under the chairmanship of Professor Ian May and more recently of Mr Rob Smith. Both have done an excellent job in attracting interesting papers, maintaining high standards and introducing new initiatives to improve the journal. I now take on the role of chairman and look to build upon the success of my predecessors by encouraging a healthy mix of papers from both research and practice, and strengthening the international appeal and reputation of the journal.

The present issue contains five papers of widely varying subject matter. The first paper (Ivorra *et al.*, 2011) explores the dynamic response of masonry bell towers focussing on the influence of the forces generated from ringing of the bells themselves and possible interaction with the tower's natural frequencies. Recommended assessment procedures are outlined.

Three-dimensional decks are commonly represented with grillage models for ease of analysis. The second paper (Mozos and Aparicio, 2011) addresses how to split cellular decks with inclined webs into such models and provides splitting criteria together with a means of determining equivalent torsional characteristics of the beams. Adequacy of the approach is demonstrated by comparing key results obtained from the grillage models with those from full three-dimensional finite-element analyses.

In the third paper, Holický (2011) introduces the recently developed international standard on the design of structures for durability. The paper provides background to the new standard, explanation of its use and an example.

The remaining two papers explore different means and aspects of strengthening existing reinforced concrete structures. Su and Cheng (2011) investigate retrofitting deep reinforced concrete beams with steel plates, while Lima and Barros (2011) assess the

reliability of current design models for reinforced concrete beams strengthened by externally bonded fibre-reinforced polymers (FRPs). The effectiveness of the steel plate reinforcing system was examined experimentally with four cyclic loading tests being performed; it was concluded that this system offers an effective means of increasing both the strength and ductility of deep reinforced concrete beams and, by employing thin steel sheets, installation is also relatively straightforward requiring no special surface preparation or drilling of bolt holes. The reliability assessment of design models for FRP strengthening raised a number of concerns relating to current design practice; such findings may well lead to further research and provoke discussion, which is strongly encouraged for both this paper and other papers in the journal.

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