Structures and Buildings
Volume 165 Issue SB2

Editorial
Young

ice | proceedings

Proceedings of the Institution of Civil Engineers
Structures and Buildings 165 February 2012 Issue SB2
Page 55 http://dx.doi.org/10.1680/stbu.2012.165.2.55

ice
Institution of Civil Engineers
publishing

Editorial

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This issue of *Structures and Buildings* consists of four technical papers. The first paper, by Nazri and Alexander (2012), presents analytical expressions for the ultimate load in the general class of uniform moment-resisting steel frames. An empirical relationship between first yield and frame failure load is also derived. Furthermore, an analytical expression for the extent of damage at failure is proposed in this study.

The second paper relates to anchored wires in concrete structures. Camposinhos and Serra Neves (2012) present three-point bending tests on concrete beams reinforced by headed wires. It is found that the anchorage force of headed wires depends mainly on the bearing area of the head, the concrete cover and the concrete strength. Analytic design models are also developed.

The third paper, by Cotsovos and Pavlović (2012), is also related to reinforced concrete beams but under impact loading. A three-dimensional non-linear finite-element analysis using a brittle constitutive model is presented. The investigation focuses on the effect of applied loading rate, including high loading rate. The numerical predictions agreed well with experimental results.

The fourth paper, by Vedalakshmi (2012), examines the service life of concrete structures. The electrochemical impedance spectroscopy technique in the presence of 0, 0·5 and 1% of chloride is used in this study. It is found that the enhancement of service life of concrete under marine atmospheric conditions using Portland slag cement is greater than that of Portland pozzolana cement.

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