

Book reviews

Reinforced Concrete Design to Eurocodes: Design Theory and Examples (Fourth Edition)

P. Bhatt, T. J. MacGinley and B. S. Choo. CRC Press, Boca Raton, FL, USA, 2014, ISBN 978-1-4666-5252-4, £38.99, 849 pp.

Worked Examples for the Design of Concrete Structures to Eurocode 2

A. J. Threlfall. CRC Press, Boca Raton, FL, USA, 2013, ISBN 978-0-4154-6819-0, £35, 260 pp.

Concrete design may not be of immediate interest to some readers of the *Magazine of Concrete Research*, but we must all realise that research without application in practice leaves research somewhat diminished as only an academic and educational tool. The two books forming the subject of this review are well worth consideration as a means of addressing this possible failing.

The fourth edition of *Reinforced Concrete Design to Eurocodes* is a radical rewrite of a student classic; this edition has been brought up to date by its strong link to the Eurocodes and the design processes within them. The Eurocodes are strongly based on conceptual modes and this book provides an excellent way of understanding the background and derivation, allowing a researcher to be able to see exactly how a new research topic may fit into practice.

As a student text, this work is systematic and thorough, and is likely to provide a relevant and useful source of reference during the development of a design-based career. The book has been rewritten to cover the Eurocodes and to include completely new sections, for example on the strut-and-tie approach to design now incorporated in mainstream design through Eurocode 2. The book does not stay within the narrow confines of reinforced concrete design of building structures, but covers water-retaining structures and foundations, in the process helping to demystify the approach in Eurocode 7. There is also a good supply of worked

examples, which are always useful in providing a second chance to understand the theory.

Dr Bhatt has done great service in bringing this classic – from its first edition in 1978, now to the fourth revision – completely up to date.

Tony Threlfall, the author of the second reviewed book, needs no introduction as an experienced designer, lecturer and writer on concrete design. Generations of engineers were led by Tony, through many of his lectures and training sessions, to a thorough understanding of limit state design, now extending to the Eurocodes.

In this work, *Worked Examples for the Design of Concrete Structures to Eurocode 2*, the approach is typically thorough and easy in its manner. The author starts with an admirably condensed chapter on the basis of design, which is a useful demystification of the apparent complexity of Eurocode 0 and Eurocode 1. Following this there are some notes on theory and then, only a tenth of the way through the book, the design examples are presented. Examples cover reinforced concrete frames and water-retaining structures and foundations; these latter two topics are useful as they are often not covered in detail in other works.

The examples are thorough and very well presented, as would be expected by an accomplished trainer. Finally, the book contains three useful appendices. Two of these cover beam on elastic foundation analysis and moments in walls of tanks; the latter are usefully reproduced from older publications.

It was in a recent issue of *Magazine of Concrete Research* that Tony Threlfall's re-edit of the classic *Reinforced Concrete Designer's Handbook* was reviewed. This book of design examples is an ideal companion to that work.

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