
Book review

Design of Prestressed Concrete to AS3600-2009, second edition

R. I. Gilbert, N. C. Mickleborough and G. Ranzi, CRC Press, Boca Raton, FL, USA, 2014, ISBN 978-1-4665-7269-0, £49.99, 673 pp.

Shortly after agreeing to review this book, but before starting work on it, your reviewer was asked by a colleague to carry out some prestressed design to the Australian code for a project in Singapore. Turning to the book from a position of genuine need, yes, detailed questions on the code were answered but there was so much more. This book is certainly more than a commentary on a code; it is a wide ranging and thorough study of its subject, presenting the material that we have been familiar with for half a century with a concentration on structural forms that are in common use now. This is a mature book and has much to offer to the practicing engineer and academic as well as students.

The content covers the prestressed concrete design from its early days, and references range from the 1950s. Due to this full coverage of the subject, we are not left just with coverage of the design processes used in the Australian code; relevant points from ACI 318 and Eurocode EN 1992 are also included.

Structural mechanics with respect to prestressed structures are also covered, with emphasis on serviceability, not just concrete stress control but also deflections. The special requirements of design of statically indeterminate linear structures are covered and also the design of slabs. It is disappointing that so little space is devoted to pretensioning, certainly not a minor application of prestressing, and with current interest in offsite manufacture, one which may find greater favour in the future.

The general tone of the book is academic but with lots of practical points being covered on detailing and application. It deserves wide use.

Howard Taylor