

Reinforced Cement Concrete Design



REINFORCED CEMENT CONCRETE DESIGN



3G @LEARNING

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Reinforced Cement Concrete Design

The book is primarily designed to be an applied text to cater to the class-room or self-study needs of students in Civil Engineering. It covers all the basic topics of reinforced concrete design generally taught in Civil Engineering curriculum. It presents, in simple terms, the basic principles of reinforced concrete design, a thorough knowledge of which is essential for proper understanding of current design practices and code provisions. Reinforced concrete structures are subjected to a complex variety of stresses and strains. The four basic actions are bending, axial load, shear, and torsion. Each action alone, or in combination with others, may affect structures in different ways under varying conditions. At present, there is no one comprehensive theory for reinforced concrete structural behavior that addresses all of these basic actions and their interactions.

The purpose of this book is to integrate the collection of available information with new research data and develop one unified theory of reinforced concrete behavior that embraces and accounts for all of the four basic actions and their combinations. This rational, unified theory of reinforced concrete behavior is based on the three fundamental principles of the mechanics of materials, i.e., stress equilibrium, strain compatibility, and constitutive laws of materials. The theoretical methods presented in this book replace a host of empirical formulas currently used. This unified theory can serve as the foundation of a universal design code that can be adopted internationally.

The Book comes with a companion DVD for rich learning experience, which includes:

1. E-Book with further reading and learning links
2. Interactive E-lecture of each chapter. E-lectures are expressive, informational, entertaining and persuasive, it uses the tool of self-exploration, which makes it easy to learn and understand each topic in detail. It is very informative as concrete details are provided and also entertaining, as graphics and other visuals are provided to make the learning process more interactive..
3. Video Lecture of each chapter which explains each topic in detail with examples, animations, images and text and makes it easy to understand the topics in easier, simpler and better way.
4. Huge Database of Interactive Assessments for each chapter
5. Further reading and learning links for each topic
6. Glossary and Notes for each chapter to understand each chapter with to the point information

The DVD is also a useful tool for teachers to teach with digital resources in class-room and do a great job of illustrating skills and techniques that are otherwise difficult to explain.

