



# IRRIGATION ENGINEERING & HYDRAULIC STRUCTURES



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*Irrigation Engineering & Hydraulic Structures*

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# Irrigation Engineering & Hydraulic Structures

Irrigation engineering is an applied subject dealing with planning, investigation, design, construction, operation and maintenance of different irrigation and allied works. It is an interdisciplinary subject where knowledge of diverse areas like agronomy, soil sciences, hydrology, meteorology, agriculture, hydraulics, structures, geology, soil mechanics and foundation engineering etc. is called for. This is a professional course usually offered at the final year or pre final year level after the students are exposed to basic courses in science and engineering.

The primary objective of writing book is to offer a well-balanced treatment of the subject with emphasis on fundamental principles and practices so that students get interested in learning and practicing the subject with confidence during their professional career. It is sincerely hoped that the book will be well received by both diploma and degree level students in civil and agricultural engineering. Those interested in pursuing advanced design course in the subject either as elective, will also find the book useful since no advanced course can be understood without a strong base in fundamentals. Having as its main feature a substantial number of worked examples, its purpose is to augment lecture courses and standard book on fluid mechanics and hydraulics by illustrating the application of the underlying theory to a wide range of practical situations. Aspects of relevant theory, in concise form and accompanied by explanation, are included at the beginning of each chapter. The book should prove useful not only to students but also to practicing engineers as a concise working reference.

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 classroom and do a great job of illustrating skills and techniques that are otherwise difficult to explain.

