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# Bridge Engineering Krishna Raju

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Advances in Civil Engineering  
Design Of Bridges, 4/E  
Prestressed Concrete  
Foundation Design  
Prestressed Concrete Design  
Advanced Mechanics of Solids  
ADVANCED REINFORCED CONCRETE DESIGN  
Reinforced Concrete Design: Principles And Practice  
Prestressed Concrete Bridges (PB)  
Bridge Superstructure  
Design of Bridges  
Structural Concrete  
Design of Bridges  
Graphical Methods in Structural Analysis  
Essentials of Bridge Engineering  
Structural Engineer's Pocket Book British Standards Edition  
Practical Civil Engineering  
Design & Construction Of Highway Bridges  
Structural Design & Drawing: 3Rd Edition  
LIMIT STATE DESIGN OF REINFORCED CONCRETE  
Applied Chemistry and Chemical Engineering, Volume 1  
CAD/CAM/CIM  
Bridge Engineering  
Advanced Mechanics of Solids and Structures  
Structural Dynamics  
Bridge Engineering, Third Edition  
Advanced Reinforced Concrete Design  
Reinforced Concrete Design  
Concrete Bridge Practice  
Machine Design: An Integrated Approach, 2/E  
EARTHQUAKE RESISTANT DESIGN OF STRUCTURES  
Structural Design and Drawing  
Design of Bridges  
Guidelines for the Design of Cable-stayed Bridges  
Fundamentals and Methods of Machine and Deep Learning  
PRESTRESSED CONCRETE  
Limit State Design of Reinforced Concrete  
Bridge Engineering  
DESIGN OF BRIDGE STRUCTURES, Third Edition

*Bridge Engineering*  
Krishna Raju

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**RAIDEN ATKINSON**

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**Advances in Civil Engineering** CRC

Press

The book begins with a brief introduction, helping the reader to understand the fundamentals of stress concept and prestressed concrete systems. The discussion then follows to explain the computation of different losses and estimation of ultimate flexural and shear strength. Important codal provisions viz. IS1343-2012, Eurocode EN2 and BSEN-1:2004 are also highlighted in this text. For clear understanding of the materials, the text is supported by a good number of figures and tables. Besides covering the important topics on design and analysis of anchorage zone stresses and analysis of continuous beam, the book also discusses composite construction and circular prestressing. The book is designed as a textbook for the senior level undergraduate and postgraduate students of civil engineering and construction technology. **KEY FEATURES** *Design Of Bridges, 4/E* Oxford and IBH Publishing

The third edition of highly successful text has been thoroughly revised and updated to meet the requirements of senior undergraduate and postgraduate students of Civil, Structural and Transportation engineering streams and practicing structural engineers. The book provides a lucid exposition of the theory and design of various types of bridges. Contents: Loading Standards / Stone Masonry Bridges / Reinforced Concrete Slab Bridge Decks / Skew Slab Culvert / Pipe Culvert / Box Culvert / Tee Beam and Slab Bridge Deck / Plate Girder Bridges / Composite Bridges / Prestressed Concrete Bridges / Rigid Frame Bridge / Steel Trussed Bridge / Balanced Cantilever Bridges / Continuous Bridges / Bridge Bearings / Cable Stayed Bridges / Piers and

Abutments / Bridge Foundations / Curved Bridge Decks / Dynamic Response of Bridge Decks / Selective Reference / Subject Index / Author Index

**Prestressed Concrete** PHI Learning Pvt. Ltd.

Prestressed concrete is widely used in the construction industry in buildings, bridges, and other structures. The new edition of this book provides up-to-date guidance on the detailed design of prestressed concrete structures according to the provisions of the latest preliminary version of Eurocode 2: Design of Concrete Structures, DD ENV 1992-1-1: 1992. The emphasis throughout is on design - the problem of providing a structure to fulfil a given purpose - but fundamental concepts are also described in detail. All major topics are dealt with, including prestressed flat slabs, an important and growing application in the design of buildings. The text is illustrated throughout with worked examples and problems for further study. Examples are given of computer spreadsheets for typical design calculations. Prestressed Concrete Design will be a valuable guide to practising engineers, students and research workers.

Foundation Design New Age International

The use of COSMOS for the analysis and solution of structural dynamics problems is introduced in this new edition. The COSMOS program was selected from among the various professional programs available because it has the capability of solving complex problems in structures, as well as in other engineering fields such as Heat Transfer, Fluid Flow, and Electromagnetic Phenomena. COSMOS includes routines for Structural Analysis, Static, or Dynamics with linear or nonlinear behavior (material

nonlinearity or large displacements), and can be used most efficiently in the microcomputer. The larger version of COSMOS has the capacity for the analysis of structures modeled up to 64,000 nodes. This fourth edition uses an introductory version that has a capability limited to 50 nodes or 50 elements. This version is included in the supplement, STRUCTURAL DYNAMICS USING COSMOS 1. The sets of educational programs in Structural Dynamics and Earthquake Engineering that accompanied the third edition have now been extended and updated. These sets include programs to determine the response in the time or frequency domain using the FFT (Fast Fourier Transform) of structures modeled as a single oscillator. Also included is a program to determine the response of an inelastic system with elastoplastic behavior and a program for the development of seismic response spectral charts. A set of seven computer programs is included for modeling structures as two-dimensional and three dimensional frames and trusses.

Prestressed Concrete Design McGraw Hill Professional

- Provides a concise presentation of theory and practice for all technical in civil engineering.
- Contains detailed theory with lucid illustrations.
- Focuses on the management aspects of a civil engineer's job.
- Addresses contemporary issues such as permitting, globalization, sustainability, and emerging technologies.
- Includes codal provisions of US, UK and India.

Advanced Mechanics of Solids John Wiley & Sons

In Foundation Design: Theory and Practice, Professor N. S. V. Kameswara Rao covers the key aspects of the subject, including principles of testing,

interpretation, analysis, soil-structure interaction modeling, construction guidelines, and applications to rational design. Rao presents a wide array of numerical methods used in analyses so that readers can employ and adapt them on their own. Throughout the book the emphasis is on practical application, training readers in actual design procedures using the latest codes and standards in use throughout the world. Presents updated design procedures in light of revised codes and standards, covering: American Concrete Institute (ACI) codes Eurocode 7 Other British Standard-based codes including Indian codes Provides background materials for easy understanding of the topics, such as: Code provisions for reinforced concrete Pile design and construction Machine foundations and construction practices Tests for obtaining the design parameters Features subjects not covered in other foundation design texts: Soil-structure interaction approaches using analytical, numerical, and finite element methods Analysis and design of circular and annular foundations Analysis and design of piles and groups subjected to general loads and movements Contains worked out examples to illustrate the analysis and design Provides several problems for practice at the end of each chapter Lecture materials for instructors available on the book's companion website Foundation Design is designed for graduate students in civil engineering and geotechnical engineering. The book is also ideal for advanced undergraduate students, contractors, builders, developers, heavy machine manufacturers, and power plant engineers. Students in mechanical engineering will find the chapter on machine foundations helpful for structural engineering applications.

Companion website for instructor resources: [www.wiley.com/go/rao](http://www.wiley.com/go/rao)  
**ADVANCED REINFORCED CONCRETE DESIGN** Tata McGraw-Hill Education  
 The Book Irrigation And Water Resources Engineering Deals With The Fundamental And General Aspects Of Irrigation And Water Resources Engineering And Includes Recent Developments In Hydraulic Engineering Related To Irrigation And Water Resources Engineering. Significant Inclusions In The Book Are A Chapter On Management (Including Operation, Maintenance, And Evaluation) Of Canal Irrigation In India, Detailed Environmental Aspects For Water Resource Projects, A Note On Interlinking Of Rivers In India, And Design Problems Of Hydraulic Structures Such As Guide Bunds, Settling Basins Etc. The First Chapter Of The Book Introduces Irrigation And Deals With The Need, Development And Environmental Aspects Of Irrigation In India. The Second Chapter On Hydrology Deals With Different Aspects Of Surface Water Resource. Soil-Water Relationships Have Been Dealt With In Chapter 3. Aspects Related To Ground Water Resource Have Been Discussed In Chapter 4. Canal Irrigation And Its Management Aspects Form The Subject Matter Of Chapters 5 And 6. Behaviour Of Alluvial Channels And Design Of Stable Channels Have Been Included In Chapters 7 And 8, Respectively. Concepts Of Surface And Subsurface Flows, As Applicable To Hydraulic Structures, Have Been Introduced In Chapter 9. Different Types Of Canal Structures Have Been Discussed In Chapters 10, 11, And 13. Chapter 12 Has Been Devoted To Rivers And River Training Methods. After Introducing Planning Aspects Of Water Resource Projects In Chapter 14,

Embankment Dams, Gravity Dams And Spillways Have Been Dealt With, Respectively, In Chapters 15, 16 And 17. The Students Would Find Solved Examples (Including Design Problems) In The Text, And Unsolved Exercises And The List Of References Given At The End Of Each Chapter Useful.

**Reinforced Concrete Design: Principles And Practice** Alpha Science Int'l Ltd.

The fifth edition of this updated text follows the philosophy of limit state design for the design of various types of road bridge. An integrated design approach involving the limit states of strength and serviceability has been followed for the design of reinforced, prestressed and steel bridges commonly used for national high way crossings. The revised fifth edition presents in a lucid manner the designs.

*Prestressed Concrete Bridges (PB)* CRC Press

The state of the art in highway bridge engineering Fully updated with the latest codes and standards, including load and resistance factor design (LRFD), *Bridge Engineering, Third Edition* covers highway bridge planning, design, construction, maintenance, and rehabilitation. This thoroughly revised reference contains cutting-edge analytical, design, and construction practices, the most current information on new materials and methods, and proven, cost-effective maintenance and repair techniques. Real-world case studies and hundreds of helpful photos and illustrations are also included in this practical resource. **BRIDGE ENGINEERING, THIRD EDITION FEATURES COMPLETE COVERAGE OF:** Highway bridge structures Project inception Project funding Design standards Bridge inspection and site survey Physical

testing As-built plans and other record data Superstructure types Deck types Wearing surface types Deck joint types Design loads Design methods Internal forces Load distribution Concrete deck slabs Composite steel members Plate girder design Continuous beams Protecting steel superstructures Load rating Prestressed concrete Substructure design Abutments Piers Bearings Managing the design process Contract documents Bridge management systems

**Bridge Superstructure** PHI Learning Pvt. Ltd.

**FUNDAMENTALS AND METHODS OF MACHINE AND DEEP LEARNING** The book provides a practical approach by explaining the concepts of machine learning and deep learning algorithms, evaluation of methodology advances, and algorithm demonstrations with applications. Over the past two decades, the field of machine learning and its subfield deep learning have played a main role in software applications development. Also, in recent research studies, they are regarded as one of the disruptive technologies that will transform our future life, business, and the global economy. The recent explosion of digital data in a wide variety of domains, including science, engineering, Internet of Things, biomedical, healthcare, and many business sectors, has declared the era of big data, which cannot be analysed by classical statistics but by the more modern, robust machine learning and deep learning techniques. Since machine learning learns from data rather than by programming hard-coded decision rules, an attempt is being made to use machine learning to make computers that are able to solve problems like human experts in the field. The goal of this book is to present a practical

approach by explaining the concepts of machine learning and deep learning algorithms with applications. Supervised machine learning algorithms, ensemble machine learning algorithms, feature selection, deep learning techniques, and their applications are discussed. Also included in the eighteen chapters is unique information which provides a clear understanding of concepts by using algorithms and case studies illustrated with applications of machine learning and deep learning in different domains, including disease prediction, software defect prediction, online television analysis, medical image processing, etc. Each of the chapters briefly described below provides both a chosen approach and its implementation. Audience Researchers and engineers in artificial intelligence, computer scientists as well as software developers.

*Design of Bridges* Oxford and Ibh Publishers

This volume comprises select peer reviewed papers presented at the international conference - Advanced Research and Innovations in Civil Engineering (ARICE 2019). It brings together a wide variety of innovative topics and current developments in various branches of civil engineering. Some of the major topics covered include structural engineering, water resources engineering, transportation engineering, geotechnical engineering, environmental engineering, and remote sensing. The book also looks at emerging topics such as green building technologies, zero-energy buildings, smart materials, and intelligent transportation systems. Given its contents, the book will prove useful to students, researchers, and professionals working in the field of civil engineering.

**Structural Concrete** Toronto ; Montreal

: McGraw-Hill Ryerson

Intended as a companion volume to the author's Limit State Design of Reinforced Concrete (published by Prentice-Hall of India), the Second Edition of this comprehensive and systematically organized text builds on the strength of the first edition, continuing to provide a clear and masterly exposition of the fundamentals of the theory of concrete design. The text meets the twin objective of catering to the needs of the postgraduate students of Civil Engineering and the needs of the practising civil engineers as it focuses also on the practices followed by the industry. This text, along with Limit State Design, covers the entire design practice of revised Code IS456 (2000). In addition, it analyzes the procedures specified in many other BIS codes such as those on winds, earthquakes, and ductile detailing. What's New to This Edition Chapter 18 on Earthquake Forces and Structural Response of framed buildings has been completely revised and updated so as to conform to the latest I.S. Codes 1893 (2002) entitled Criteria for Earthquake Resistant Design of Structures (Part I - Fifth Revision). Chapters 19 and 21 which too deal with earthquake design have been revised. A Summary of elementary design of reinforced concrete members is added as Appendix. Valuable tables and charts are presented to help students and practising designers to arrive at a speedy estimate of the steel requirements in slabs, beams, columns and footings of ordinary buildings. *Design of Bridges* South Asia Books Emphasizing a conceptual understanding of concrete design and analysis, this revised and updated edition builds the student's understanding by presenting design methods in an easy to

understand manner supported with the use of numerous examples and problems. Written in intuitive, easy-to-understand language, it includes SI unit examples in all chapters, equivalent conversion factors from US customary to SI throughout the book, and SI unit design tables. In addition, the coverage has been completely updated to reflect the latest ACI 318-11 code.

**Graphical Methods in Structural Analysis** PHI Learning Pvt. Ltd.

This book provides, in SI units, an integrated design approach to various reinforced concrete and steel structures, with particular emphasis on the logical presentation of steps conforming to Indian Standard Codes. Detailed drawings along with carefully chosen examples, many of them from examination papers, greatly facilitate the understanding of the subject. *Essentials of Bridge Engineering* PHI Learning Pvt. Ltd.

The revised edition of this hallmark text is updated with the recent developments in design, construction and maintenance of Prestressed Concrete Structures. It incorporates the integrated limit state concepts in design with emphasis on the practical aspe.

**Structural Engineer's Pocket Book British Standards Edition** Pearson Education India

Design of Bridges Oxford and Ibh Publishers

Practical Civil Engineering CRC Press

This updated third edition of the textbook on design of bridge structures continues to provide comprehensive coverage of both theory and design practice within a single capsule. It is intended for undergraduate and postgraduate students of civil engineering. It is also considered useful for practicing civil engineers and



designers who need a ready reckoner on important design aspects on bridges. This third edition comes with three recent topics in bridge engineering. Chapters on limit state method design of concrete bridges, flyovers, and smart structural health monitoring of bridges, have been appended. The most distinguishing features of this edition comprise:

- Design of concrete bridges based on both working stress and limit state methods
- Detailed design drawings of bridges
- Detailed overview of flyovers
- Exposition to smart structural health monitoring of bridges
- Computer programs in C on bridge design

**TARGET AUDIENCE** • BE/BTech Civil Engineering • ME/MTech Civil Engineering

**Design & Construction Of Highway Bridges** CBS Publishers & Distributors Pvt Limited, India

This report discusses loadings and materials used in the design of cable-stayed bridges.

*Structural Design & Drawing: 3Rd Edition* PHI Learning Pvt. Ltd.

The book deals with the graphical analysis of various structures such as beams, plane and space trusses, and arches. Deflection analysis of beams and

plane trusses is also included in this book. Mohr's stress and strain circles are discussed along with the extension to three-dimensional problems.

**LIMIT STATE DESIGN OF REINFORCED CONCRETE** New Age International

This comprehensive and well-organized book presents the concepts and principles of earthquake resistant design of structures in an easy-to-read style. The use of these principles helps in the implementation of seismic design practice. The book adopts a step-by-step approach, starting from the fundamentals of structural dynamics to application of seismic codes in analysis and design of structures. The text also focuses on seismic evaluation and retrofitting of reinforced concrete and masonry buildings. The text has been enriched with a large number of diagrams and solved problems to reinforce the understanding of the concepts. Intended mainly as a text for undergraduate and postgraduate students of civil engineering, this text would also be of considerable benefit to practising engineers, architects, field engineers and teachers in the field of earthquake resistant design of structures.

Best Sellers - Books :

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- [A Court Of Wings And Ruin \(a Court Of Thorns And Roses, 3\) By Sarah J. Maas](#)
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- [Think And Grow Rich: The Landmark Bestseller Now Revised And Updated For The 21st Century \(think And Grow Rich Series\)](#)
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