

Structural Concrete Theory And Design 5th Edition

Structural concrete designers nowadays distinguish between B-regions (named after Bernoulli beam theory) and D-regions (D standing for 'disturbed'). They are all familiar with B-regions, but less acquainted with the expertise required for D-regions. To design D-regions, the Strut-and-Tie Model (STM) is usually applied, a model laid down worldwide in structural codes of practice. The Stringer-Panel Model (SPM) recommended here is a companion method to the STM, with the advantage of being suitable for different load cases and reversed loading. This being so, the SPM is suitable for linear-elastic analyses where durability is a key consideration, but also suits structural design for contexts of cyclical seismic activity. Finally, this book sets out how structural engineers who prefer the STM can nevertheless apply the SPM to determine a proper strut-and-tie model.

Structural engineers must focus on a structure's continued safety throughout its service life. Reinforced Concrete Structural Reliability covers the methods that enable engineers to keep structures reliable during all project phases, and presents a practical exploration of up-to-date techniques for predicting the lifetime of a structure. The book a Segmental concrete bridges have become one of the main options for major transportation projects world-wide. They offer expedited construction with minimal traffic disruption, lower life cycle costs, appealing aesthetics and adaptability to a curved

roadway alignment. The literature is focused on construction, so this fills the need for a design-oriented book for less experienced bridge engineers and for senior university students. It presents comprehensive theory, design and key construction methods, with a simple design example based on the AASHTO LRFD Design Specifications for each of the main bridge types. It outlines design techniques and relationships between analytical methods, specifications, theory, design, construction and practice. It combines mathematics and engineering mechanics with the authors' design and teaching experience.

Structural Concrete discusses the design and analysis of reinforced and prestressed concrete structural components and structures. Each of the eight chapters of the book tackles a specific area of concern in structural concrete. The text first deals with the serviceability and safety, and then proceeds to the properties of materials and mix designs. The next two chapters cover reinforced concrete beams and slabs. Chapter 5 discusses column and walls, while Chapter 6 tackles reinforced concrete frames and continuous beams and slabs. The next chapter discusses design structures, while the last chapter covers prestressed concrete. The text will be of great use to undergraduate students of civil and structural engineering. Professionals whose work involves concrete technology will also find the book useful.

The most up to date structural concrete text, with the latest ACI revisions Structural Concrete is the bestselling text on concrete structural design and analysis, providing the

latest information and clear explanation in an easy to understand style. Newly updated to reflect the latest ACI 318-14 code, this sixth edition emphasizes a conceptual understanding of the subject, and builds the student's body of knowledge by presenting design methods alongside relevant standards and code. Numerous examples and practice problems help readers grasp the real-world application of the industry's best practices, with explanations and insight on the extensive ACI revision. Each chapter features examples using SI units and US-SI conversion factors, and SI unit design tables are included for reference. Exceptional weather-resistance and stability make concrete a preferred construction material for most parts of the world. For civil and structural engineering applications, rebar and steel beams are generally added during casting to provide additional support. Pre-cast concrete is becoming increasingly common, allowing better quality control, the use of special admixtures, and the production of innovative shapes that would be too complex to construct on site. This book provides complete guidance toward all aspects of reinforced concrete design, including the ACI revisions that address these new practices. Review the properties of reinforced concrete, with models for shrink and creep. Understand shear, diagonal tension, axial loading, and torsion. Learn planning considerations for reinforced beams and struts and ties. Design retaining walls, footings, slender columns, stairs, and more. The American Concrete Institute updates structural concrete code approximately every three years, and it's critical that students learn the most recent standards and best practices.

Structural Concrete provides the most up to date information, with intuitive explanation and detailed guidance.

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.

This book will provide comprehensive, practical knowledge for the design of reinforced concrete buildings. The approach will be unique as it will focus primarily on the design of various structures and structural elements as done in design offices with an emphasis on compliance with the relevant codes. It will give an overview of the integrated design of buildings and explain the design of various elements such as slabs, beams, columns, walls, and footings. It will be written in easy-to-use format and refer to all the latest relevant American codes of practice (IBC and ASCE) at every stage. The book will compel users to think critically to enhance their intuitive design capabilities.

This book examines the application of strut-and-tie models (STM) for the design of structural concrete. It presents state-of-the-art information, from fundamental theories to

practical engineering applications, and also provides innovative solutions for many design problems that are not otherwise achievable using the traditional methods. A Powerful Tool for the Analysis and Design of Complex Structural Elements Finite-Element Modelling of Structural Concrete: Short-Term Static and Dynamic Loading Conditions presents a finite-element model of structural concrete under short-term loading, covering the whole range of short-term loading conditions, from static (monotonic and cyclic) to dynamic (seismic and impact) cases. Experimental data on the behavior of concrete at both the material and structural levels reveal the unavoidable development of triaxial stress conditions prior to failure which dictate the collapse and ductility of structural concrete members. Moreover, and in contrast with generally accepted tenets, it can be shown that the post-peak behavior of concrete as a material is realistically described by a complete and immediate loss of load-carrying capacity. Hence rational analysis and design of concrete components in accordance with the currently prevailing limit-state philosophy requires the use of triaxial material data consistent with the notion of a fully brittle material, and this approach is implemented in the book by outlining a finite-element method for the prediction of the strength, deformation, and cracking patterns of arbitrary structural concrete forms. Presents a Unified Approach to Structural Modeling Numerous examples are given that show both the unifying generality of this proposed approach and the reliability of the ensuing numerical procedure for which the sole input is the specified uniaxial cylinder

compressive strength of concrete and the yield stress of the steel. This not only offers a better understanding of the phenomenology of structural concrete behavior but also illustrates, by means of suitable examples, the type of revision required for improving design methods in terms of both safety and economy. This book: Highlights the significance of valid experimental information on the behavior of concrete under triaxial stress conditions for interpreting structural behavior Describes the techniques used for obtaining valid test data and modeling concrete behavior Discusses the modeling of steel properties as well as the interaction between concrete and steel Presents numerical techniques for incorporating the material models into nonlinear finite-element analysis for the case of short-term static loading Provides numerical techniques adopted for extending the use of the numerical analysis scheme for the solution of dynamic problems Predicts the response of a wide range of structural-concrete configurations to seismic and impact excitations Using relevant case studies throughout, *Finite-Element Modelling of Structural Concrete: Short-Term Static and Dynamic Loading Conditions* focuses on the realistic modeling of structural concrete on the basis of existing and reliable material data and aids in the research and study of structural concrete and concrete materials.

This second edition of *Precast Concrete Structures* introduces the conceptual design ideas for the prefabrication of concrete structures and presents a number of worked examples that translate designs from BS 8110 to Eurocode EC2, before going into the

detail of the design, manufacture, and construction of precast concrete multi-storey buildings. Detailed structural analysis of precast concrete and its use is provided and some details are presented of recent precast skeletal frames of up to forty storeys. The theory is supported by numerous worked examples to Eurocodes and European Product Standards for precast reinforced and prestressed concrete elements, composite construction, joints and connections and frame stability, together with extensive specifications for precast concrete structures. The book is extensively illustrated with over 500 photographs and line drawings.

Increases in computer power have now enabled engineers to combine materials science with structural mechanics in the design and the assessment of concrete structures. The techniques developed have become especially useful for the performance assessment of such structures under coupled mechanistic and environmental actions. This allows effective management of infrastructure over a much longer life cycle, thus satisfying the requirements for durability and sustainability. This ground-breaking new book draws on the fields of materials and structural mechanics in an integrated way to address the questions of management and maintenance. It proposes a realistic way of simulating both constituent materials and structural responses under external loading and under ambient conditions. Where the research literature discusses component or element technology related to performance assessment, this book uniquely covers the subject at the level of the whole system

including soil foundation, showing engineers how to model changes in concrete structures over time and how to use this for decision making in infrastructure maintenance and asset management.

The sixth edition of this comprehensive textbook provides the same philosophical approach that has gained wide acceptance since the first edition was published in 1965. The strength and behavior of concrete elements are treated with the primary objective of explaining and justifying the rules and formulas of the ACI Building Code. The treatment is incorporated into the chapters in such a way that the reader may study the concepts in a logical sequence in detail or merely accept a qualitative explanation and proceed directly to the design process using the ACI Code.

Unified Theory of Concrete Structures develops an integrated theory that encompasses the various stress states experienced by both RC & PC structures under the various loading conditions of bending, axial load, shear and torsion. Upon synthesis, the new rational theories replace the many empirical formulas currently in use for shear, torsion and membrane stress. The unified theory is divided into six model components: a) the struts-and-ties model, b) the equilibrium (plasticity) truss model, c) the Bernoulli compatibility truss model, d) the Mohr compatibility truss model, e) the softened truss model, and f) the softened membrane model. Hsu presents the six models as rational tools for the solution of the four basic types of stress, focusing on the significance of their intrinsic consistencies and their inter-relationships. Because of its inherent

rationality, this unified theory of reinforced concrete can serve as the basis for the formulation of a universal and international design code. Includes an appendix and accompanying website hosting the authors' finite element program SCS along with instructions and examples Offers comprehensive coverage of content ranging from fundamentals of flexure, shear and torsion all the way to non-linear finite element analysis and design of wall-type structures under earthquake loading. Authored by world-leading experts on torsion and shear

Structural analysis is the corner stone of civil engineering and all students must obtain a thorough understanding of the techniques available to analyse and predict stress in any structure. The new edition of this popular textbook provides the student with a comprehensive introduction to all types of structural and stress analysis, starting from an explanation of the basic principles of statics, normal and shear force and bending moments and torsion. Building on the success of the first edition, new material on structural dynamics and finite element method has been included. Virtually no prior knowledge of structures is assumed and students requiring an accessible and comprehensive insight into stress analysis will find no better book available. Provides a comprehensive overview of the subject providing an invaluable resource to undergraduate civil engineers and others new to the subject Includes numerous worked examples and problems to aide in the learning process and develop knowledge and skills Ideal for classroom and training course usage providing relevant pedagogy

Timber, steel, and concrete are common engineering materials used in structural design. Material choice depends upon the type of structure, availability of material, and the preference of the designer. The design practices the code requirements of each material are very different. In this updated edition, the elemental designs of individual components of each material are presented, together with theory of structures essential for the design. Numerous examples of complete structural designs have been included. A comprehensive database comprising materials properties, section properties, specifications, and design aids, has been included to make this essential reading. This established and popular textbook has now been extensively rewritten and expanded in line with the current Eurocodes. It presents the principles of the design of concrete elements and also the design of complete structures, and provides practical illustrations of the theory. It explains the background to the Eurocode rules and goes beyond the c

Reinforced concrete is the most widely used construction material in the world, and extended performance is rightly expected. Many structures are in aggressive environments, of critical importance and may be irreplaceable, so repair and protection are vital. This book surveys deterioration of concrete, particularly corrosion of the steel reinforcement, and the various chemical, biological, physical and mechanical causes of deterioration. It outlines condition survey and diagnosis techniques by on-site and laboratory measurements. It sets out mechanical methods of protection and repair, such as patching, inhibitors, coatings, penetrants and structural strengthening as well as cathodic protection and other electrochemical methods.

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This book also gives guidance on preventative measures including concrete technology and construction considerations, coatings and penetrants, alternate reinforcement, permanent corrosion monitoring and durability planning aspects. Asset managers, port engineers, bridge maintenance managers, building managers, heritage structure engineers, plant engineers, consulting engineers, architects, specialist contractors and construction material suppliers who have the task of resolving problems of corrosion of steel reinforced concrete elements will find this book an extremely useful resource. It will also be a valuable reference for students at postgraduate level. Authors The late Professor Brian Cherry of Monash University, Melbourne, Australia was one of the world's leading corrosion science and engineering educators and researchers. Warren Green of Vinsi Partners, Sydney, Australia is a corrosion engineer and materials scientist. He is also an Adjunct Associate Professor.

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A PRACTICAL GUIDE TO REINFORCED CONCRETE STRUCTURE ANALYSIS AND DESIGN Reinforced Concrete Structures explains the underlying principles of reinforced concrete design and covers the analysis, design, and detailing requirements in the 2008 American Concrete Institute (ACI) Building Code Requirements for Structural Concrete and Commentary and the 2009 International Code Council (ICC) International Building Code (IBC). This authoritative resource discusses reinforced concrete members and provides techniques for sizing the cross section, calculating the required amount of reinforcement, and detailing the reinforcement. Design procedures and flowcharts guide you through code requirements, and worked-out examples demonstrate the proper application of the design provisions.

COVERAGE INCLUDES: Mechanics of reinforced concrete Material properties of concrete and reinforcing steel Considerations for analysis and design of reinforced concrete structures

Requirements for strength and serviceability Principles of the strength design method Design and detailing requirements for beams, one-way slabs, two-way slabs, columns, walls, and foundations

This new edition of a highly practical text gives a detailed presentation of the design of common reinforced concrete structures to limit state theory in accordance with BS 8110. This book provides the reader with a consistent approach to theory of structures on the basis of applied mechanics. It covers framed structures as well as plates and shells using elastic and plastic theory, and emphasizes the historical background and the relationship to practical engineering activities. This is the first comprehensive treatment of the school of structures that has evolved at the Swiss Federal Institute of Technology in Zurich over the last 50 years. The many worked examples and exercises make this a textbook ideal for in-depth studies. Each chapter concludes with a summary that highlights the most important aspects in concise form. Specialist terms are defined in the appendix. There is an extensive index befitting such a work of reference. The structure of the content and highlighting in the text make the book easy to use. The notation, properties of materials and geometrical properties of sections plus brief outlines of matrix algebra, tensor calculus and calculus of variations can be found in the appendices. This publication should be regarded as a key work of reference for students, teaching staff and practising engineers. Its purpose is to show readers how to model and handle structures appropriately, to support them in designing and checking the structures within their sphere of responsibility.

This new book on the fracture mechanics of concrete focuses on the latest developments in computational theories, and how to apply those theories to solve real engineering problems.

Zihai Shi uses his extensive research experience to present detailed examination of multiple-crack analysis and mixed-mode fracture. Compared with other mature engineering disciplines, fracture mechanics of concrete is still a developing field with extensive new research and development. In recent years many different models and applications have been proposed for crack analysis; the author assesses these in turn, identifying their limitations and offering a detailed treatment of those which have been proved to be robust by comprehensive use. After introducing stress singularity in numerical modelling and some basic modelling techniques, the Extended Fictitious Crack Model (EFCM) for multiple-crack analysis is explained with numerical application examples. This theoretical model is then applied to study two important issues in fracture mechanics - crack interaction and localization, and fracture modes and maximum loads. The EFCM is then reformulated to include the shear transfer mechanism on crack surfaces and the method is used to study experimental problems. With a carefully balanced mixture of theory, experiment and application, Crack Analysis in Structural Concrete is an important contribution to this fast-developing field of structural analysis in concrete. Latest theoretical models analysed and tested Detailed assessment of multiple crack analysis and multi-mode fractures Applications designed for solving real-life engineering problems A user-friendly reference on the design and technology of building structures. The authors provide a holistic approach to structural design by covering all of the primary structural materials (steel, wood, reinforced concrete, and masonry) and combining architectural form, spatial organization, and load configurations.

Shows the unifying generality of the proposed approach and the reliability of the ensuing computer package, for which the sole input is the specified cylinder strength of concrete and

the yield is the stress of steel. This book offers an understanding of structural concrete behaviour, and illustrates the revision required for improving methods.

This enlightening textbook for undergraduates on civil engineering degree courses explains structural design from its mechanical principles, showing the speed and simplicity of effective design from first principles. This text presents good approximate solutions to complex design problems, such as "Wembley-Arch" type structures, the design of thin-walled structures, and long-span box girder bridges. Other more code-based textbooks concentrate on relatively simple member design, and avoid some of the most interesting design problems because code compliant solutions are complex. Yet these problems can be addressed by relatively manageable techniques. The methods outlined here enable quick, early stage, "ball-park" design solutions to be considered, and are also useful for checking finite element analysis solutions to complex problems. The conventions used in the book are in accordance with the Eurocodes, especially where they provide convenient solutions that can be easily understood by students. Many of the topics, such as composite beam design, are straight applications of Eurocodes, but with the underlying theory fully explained. The techniques are illustrated through a series of worked examples which develop in complexity, with the more advanced questions forming extended exam type questions. A comprehensive range of fully worked tutorial questions are provided at the end of each section for students to practice in preparation for closed book exams.

Concise but comprehensive, Jonathan Ochshorn's *Structural Elements for Architects and Builders* explains how to design and analyze columns, beams, tension members and their connections. The material is organized into a single, self-sufficient volume, including all necessary data for the preliminary design and analysis of these structural elements in wood, steel, and reinforced concrete. Every chapter contains insights developed by the author and generally not found elsewhere. Appendices included at the end of each chapter contain numerous tables and graphs, based on material contained in industry publications, but reorganized and formatted especially for this text to improve clarity and simplicity, without sacrificing comprehensiveness. Procedures for design and analysis are based on the latest editions of the National Design Specification for Wood Construction (AF&PA and AWC), the Steel Construction Manual (AISC), Building Code Requirements for Structural Concrete (ACI), and Minimum Design Loads for Buildings and Other Structures (ASCE/SEI). This thoroughly revised and expanded second edition of *Structural Elements* includes an introduction to statics and strength of materials, an examination of loads, and new sections on material properties and construction systems within the chapters on wood, steel, and reinforced concrete design. This permits a more comprehensive overview of the various design and analysis procedures for each of the major structural materials used in modern buildings. Free structural calculators (search online for: Ochshorn calculators) have been created for many examples in the book, enabling architects and builders to quickly

find preliminary answers to structural design questions commonly encountered in school or in practice.

The design of many structures such as pressure vessels, aircrafts, bridge decks, dome roofs, and missiles is based on the theories of plates and shells. The degree of simplification needed to adopt the theories to the design of various structures depends on the type of structure and the required accuracy of the results. Hence, a water storage tank can be satisfactorily designed using the membrane shell theory, which disregards all bending moments, whereas the design of a missile casing requires a more precise analysis in order to minimize weight and materials. Similarly, the design of a nozzle-to-cylinder junction in a nuclear reactor may require a sophisticated finite element analysis to prevent fatigue failure while the same junction in an air accumulator in a gas station is designed by simple equations that satisfy equilibrium conditions. Accordingly, this book is written for engineers interested in the theories of plates and shells and their proper application to various structures. The examples given throughout the book subsequent to derivation of various theories are intended to show the engineer the level of analysis required to achieve a safe design with a given degree of accuracy. The book covers three general areas. These are: bending of plates; membrane and bending theories of shells; and buckling of plates and shells. Bending of plates is discussed in five chapters. Chapters 1 and 2 cover rectangular plates with various boundary and loading conditions.

* The best-selling text and reference on wood structure design * Incorporates the latest National Design Specifications, the 2003 International Building Code and the latest information on wind and seismic loads

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This established textbook sets out the principles of limit state design and of its application to reinforced and prestressed concrete members and structures. It will appeal both to students and design engineers. The fourth edition incorporates information on the recently introduced British Standard Code of practice for water retaining structures BS8007. The authors have also taken the opportunity of making minor revisions, generally based on the recommendations of BS8110.

In our world of seemingly unlimited computing, numerous analytical approaches to the estimation of stress, strain, and displacement-including analytical, numerical, physical, and analog techniques-have greatly advanced the practice of engineering. Combining theory and experimentation, computer simulation has emerged as a third path for engineering

Many important advances in designing modern structures have occurred over the last

several years. Structural engineers need an authoritative source of information that thoroughly and concisely covers the foundational principles of the field. Comprising chapters selected from the second edition of the best-selling Handbook of Structural Engineering,

Based on the latest version of designing codes both for buildings and bridges (GB50010-2010 and JTG D62-2004), this book starts from steel and concrete materials, whose properties are very important to the mechanical behavior of concrete structural members. Step by step, analysis of reinforced and prestressed concrete members under basic loading types (tension, compression, flexure, shearing and torsion) and environmental actions are introduced. The characteristic of the book that distinguishes it from other textbooks on concrete structures is that more emphasis has been laid on the basic theories of reinforced concrete and the application of the basic theories in design of new structures and analysis of existing structures. Examples and problems in each chapter are carefully designed to cover every important knowledge point. As a basic course for undergraduates majoring in civil engineering, this course is different from either the previously learnt mechanics courses or the design courses to be learnt. Compared with mechanics courses, the basic theories of reinforced concrete structures cannot be solely derived by theoretical analysis. And compared with design courses, this course emphasizes the introduction of basic theories rather than simply being a translation of design specifications. The book will focus on both the theoretical derivations and the engineering practices.

The popular, easily accessible guide to the design of reinforced concrete structures—now

updated and revised Structural Concrete, Fifth Edition provides complete guidance to the analysis and design of reinforced and prestressed concrete structures. This new edition brings all material up to date while maintaining the book's practical, logical, easy-to-follow approach. Coverage includes the latest ACI 318 - 11 code rules, emphasizing the code's strength approach and strain limits. Additional codes, standards, and specifications, as well as material properties and specific loads and safety provisions are also examined in detail. Drawing on decades of experience in industry and academia, the authors include numerous SI unit examples and design tables along with step-by-step instructions on how to analyze and design for each type of structural member. They clearly explain all key concepts one should know before tackling design formulas, and supplement the discussion with helpful end-of-chapter summaries, references, and problems. New and updated material in this edition includes: The application of shear design to beams with variable length in actual structure The design of deep beams employing ACI and AASHTO strut-and-tie approach The design of stepped-type reinforced concrete stairs, not covered anywhere else Seismic design and analysis utilizing the IBC 2012 and ASCE 7-10 code The design of curved beams subject to flexure, shear, and torsion Prestressed concrete bridge design according to AASHTO specifications Examples for predicting shrinkage and creep of concrete in both U.S. and SI units Structural Concrete, Fifth Edition arms civil and structural engineers with a complete set of tools for designing concrete structures with confidence. It is also an excellent resource for students of civil engineering. This third edition of a popular textbook is a concise single-volume introduction to the design of structural elements in concrete, steel, timber, masonry, and composites. It provides design principles and guidance in line with both British Standards and Eurocodes, current as of late

2007. Topics discussed include the philosophy of design, basic structural concepts, and material properties. After an introduction and overview of structural design, the book is conveniently divided into sections based on British Standards and Eurocodes.

This revised, fully updated second edition covers the analysis, design, and construction of reinforced concrete structures from a real-world perspective. It examines different reinforced concrete elements such as slabs, beams, columns, foundations, basement and retaining walls and pre-stressed concrete incorporating the most up-to-date edition of the American Concrete Institute Code (ACI 318-14) requirements for the design of concrete structures. It includes a chapter on metric system in reinforced concrete design and construction. A new chapter on the design of formworks has been added which is of great value to students in the construction engineering programs along with practicing engineers and architects. This second edition also includes a new appendix with color images illustrating various concrete construction practices, and well-designed buildings. The ACI 318-14 constitutes the most extensive reorganization of the code in the past 40 years. References to the various sections of the ACI 318-14 are provided throughout the book to facilitate its use by students and professionals. Aimed at architecture, building construction, and undergraduate engineering students, the scope of concepts in this volume emphasize simplified and practical methods in the analysis and design of reinforced concrete. This is distinct from advanced, graduate engineering texts, where treatment of the subject centers around the theoretical and mathematical aspects of design. As in the first edition, this book adopts a step-by-step approach to solving analysis and design problems in reinforced concrete. Using a highly graphical and interactive approach in its use of detailed images and self-experimentation exercises, "Concrete Structures, Second Edition," is

tailored to the most practical questions and fundamental concepts of design of structures in reinforced concrete. The text stands as an ideal learning resource for civil engineering, building construction, and architecture students as well as a valuable reference for concrete structural design professionals in practice.

An Original Source of Expressions and Tools for the Design of Concrete Elements with Eurocode Seismic design of concrete buildings needs to be performed to a strong and recognized standard. Eurocode 8 was introduced recently in the 30 countries belonging to CEN, as part of the suite of Structural Eurocodes, and it represents the first European Standard for seismic design. It is also having an impact on seismic design standards in countries outside Europe and will be applied there for the design of important facilities. This book: Contains the fundamentals of earthquakes and their effects at the ground level, as these are affected by local soil conditions, with particular reference to EC8 rules Provides guidance for the conceptual design of concrete buildings and their foundations for earthquake resistance Overviews and exemplifies linear and nonlinear seismic analysis of concrete buildings for design to EC8 and their modelling Presents the application of the design verifications, member dimensioning and detailing rules of EC8 for concrete buildings, including their foundations Serves as a commentary of the parts of EC8 relevant to concrete buildings and their foundations, supplementing them and explaining their proper application Seismic Design of Concrete Buildings to Eurocode 8 suits graduate or advanced undergraduate students, instructors running courses on seismic design and practicing engineers interested in the sound application of EC8 to concrete buildings. Alongside simpler examples for analysis and detailed design, it includes a comprehensive case study of the conceptual design, analysis and detailed

