Optimum Design Of Reinforced Concrete Waffle Slabs

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Proceedings of International Conference on Scientific and Natural Computing Dipti Singh 2021-05-31 This book includes high-quality papers presented at International Conference on Scientific and Natural Computing (SNC 2021), organized by Department of Applied Mathematics, Gautam Buddha University, Greater Noida in collaboration with IIT Roorkee and Technical University of Ostrava (VSB-TU) and technically sponsored by Soft Computing Research Society of India, held online during 5 – 6 February 2021. The topics include self-organizing migrating algorithm, genetic algorithms, swarm intelligence based techniques, evolutionary computing, fuzzy computing, probabilistic computing, genetic programming, particle swarm optimization, neuro computing, hybrid methods, deep learning, including convolutional neural networks, generative adversarial networks and auto-encoders, bio-inspired systems, data mining, data visualization, intelligent agents, engineering design optimization, multi-objective optimization, fault diagnosis, decision support, robotics, signal or image processing, system identification and modelling, systems integration, time series prediction, virtual reality, vision or pattern recognition, intelligent information retrieval, motion control and power electronics, Internet of Everything (IoE), control systems, and supply chain management.

Introduction to Genetic Algorithms S.N. Sivanandam 2007-10-24 This book offers a basic introduction to genetic algorithms. It provides a detailed explanation of genetic algorithm concepts and examines numerous genetic algorithm optimization problems. In addition, the book presents implementation of optimization problems using C and C++ as well as simulated solutions for genetic algorithm problems using MATLAB 7.0. It also includes application case studies on genetic algorithms in emerging fields.

Engineering Research Bulletin Louisiana State University and Agricultural and Mechanical College. Division of Engineering Research 1972

Pandex Current Index to Scientific and Technical Literature 1971

ASCE Combined Index American Society of Civil Engineers 1984 Indexes materials appearing in the Society's Journals, Transactions, Manuals and reports, Special publications, and Civil engineering.

Journal of the American Concrete Institute American Concrete Institute 1975

International Journal of Science and Technology 1988

Applied Mechanics Reviews 1960

Structural Concrete M. Nadim Hassoun 2012-05 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.

Developments in Computer Aided Design and Modelling for Structural Engineering B. H. V. Topping 1995 Includes a selection of papers presented at the Sixth International Conference on Computing in Civil and Structural Engineering and the Fourth International Conference on the Application of Artificial Intelligence to Civil and Structural Engineering, held at Cambridge, England, 28-30 August, 1995.

Structural Engineer's Pocket Book British Standards Edition Fiona Cobb 2020-12-17 The Structural Engineer's Pocket Book British Standards Edition is the only compilation of all tables, data, facts and formulae needed for scheme design to British Standards by structural engineers in a handy-sized format. Bringing together data from many sources into a compact, affordable pocketbook, it saves valuable time spent tracking down information needed regularly. This second edition is a companion to the more recent Eurocode third edition. Although small in size, this book contains the facts and figures needed for preliminary design whether in the office or on-site. Based on UK conventions, it is split into 14 sections including geotechnics, structural steel, reinforced concrete, masonry and timber, and includes a section on sustainability covering general concepts, materials, actions and targets for structural engineers.

Design and Construction of Concrete Floors George Garber 2006-06-30 Design and Construction of Concrete Floors outlines the key principles needed for the production of a good floor which can be relied on to not only support and restrain other parts of the building, but also to meet the needs of the user.The book covers:* Uses of concrete floors* Structural design* Concrete used specifically for floors* Cracks and j

Engineering Experiment Station Bulletin 1967

Proceedings of Sixth International Conference on Soft Computing for Problem Solving Kusum Deep 2017-04-12 This two-volume book gathers the proceedings of the Sixth International Conference on Soft Computing for Problem Solving (SocProS 2016), offering a collection of research papers presented during the conference at Thapar University, Patiala, India. Providing a veritable treasure trove for scientists and researchers working in the field of soft computing, it highlights the latest developments in the broad area of "Computational Intelligence" and explores both theoretical and practical aspects using fuzzy logic, artificial neural networks, evolutionary algorithms, swarm intelligence, soft computing, computational intelligence, etc.

The Indian Concrete Journal 1980

Developments in Computational Techniques for Civil Engineering B. H. V. Topping 1995 Includes

a selection of papers presented at the Sixth International Conference on Computing in Civil and Structural Engineering, held at Cambridge, England, 28-30 August 1995.

Structural Design for Physical Security Task Committee on Structural Design for Physical Security 1999-01-01 Prepared by the Task Committee on Structural Design for Physical Security of the Structural Engineering Institute of ASCE. This report provides guidance to structural engineers in the design of civil structures to resist the effects of terrorist bombings. As dramatized by the bombings of the World Trade Center in New York City and the Murrah Building in Oklahoma City, civil engineers today need guidance on designing structures to resist hostile acts. The U.S. military services and foreign embassy facilities developed requirements for their unique needs, but these the documents are restricted. Thus, no widely available document exists to provide engineers with the technical data necessary to design civil structures for enhanced physical security. The unrestricted government information included in this report is assembled collectively for the first time and rephrased for application to civilian facilities. Topics include: determination of the threat, methods by which structural loadings are derived for the determined threat, the behavior and selection of structural systems, the design of structural components, the design of security doors, the design of utility openings, and the retrofitting of existing structures. This report transfers this technology to the civil sector and provides complete methods, guidance, and references for structural engineers challenged with a physical security problem.

Innovative Computational Intelligence: A Rough Guide to 134 Clever Algorithms Bo Xing 2013-12-13 The first notable feature of this book is its innovation: Computational intelligence (CI), a fast evolving area, is currently attracting lots of researchers' attention in dealing with many complex problems. At present, there are quite a lot competing books existing in the market. Nevertheless, the present book is markedly different from the existing books in that it presents new paradigms of CI that have rarely mentioned before, as opposed to the traditional CI techniques or methodologies employed in other books. During the past decade, a number of new CI algorithms are proposed. Unfortunately, they spread in a number of unrelated publishing directions which may hamper the use of such published resources. These provide us with motivation to analyze the existing research for categorizing and synthesizing it in a meaningful manner. The mission of this book is really important since those algorithms are going to be a new revolution in computer science. We hope it will stimulate the readers to make novel contributions or even start a new paradigm based on nature phenomena. Although structured as a textbook, the book's straightforward, self-contained style will also appeal to a wide audience of professionals, researchers and independent learners. We believe that the book will be instrumental in initiating an integrated approach to complex problems by allowing cross-fertilization of design principles from different design philosophies. The second feature of this book is its comprehensiveness: Through an extensive literature research, there are 134 innovative CI algorithms covered in this book.

Design of Slabs-on-ground ACI Committee 360 2006

Transactions of the American Society of Civil Engineers American Society of Civil Engineers 1991 Vols. 29-30 contain papers of the International Engineering Congress, Chicago, 1893; v. 54, pts. A-F, papers of the International Engineering Congress, St. Louis, 1904.

Geodex Structural Information Service Geodex International 1970

Systems Analysis and Design in Engineering, Architecture, Construction, and Planning Rodolfo J.

Aguilar 1973

Engineering Index of India 1973

Cumulative Index to ASCE Publications American Society of Civil Engineers 1970

Reinforced Concrete Designer's Handbook Charles E. Reynolds 2007-08-07 This classic and essential work has been thoroughly revised and updated in line with the requirements of new codes and standards which have been introduced in recent years, including the new Eurocode as well as up-to-date British Standards. It provides a general introduction along with details of analysis and design of a wide range of structures and examination of design according to British and then European Codes. Highly illustrated with numerous line diagrams, tables and worked examples, Reynolds's Reinforced Concrete Designer's Handbook is a unique resource providing comprehensive guidance that enables the engineer to analyze and design reinforced concrete buildings, bridges, retaining walls, and containment structures. Written for structural engineers, contractors, consulting engineers, local and health authorities, and utilities, this is also excellent for civil and architecture departments in universities and FE colleges.

Introduction to Real Estate Development and Finance Richard M. Levy 2019-11-05 This book provides readers with a basic understanding of the principles that underlie real estate development. A brief historical overview and an introduction to basic principles are followed by examples from practice. Case studies focus on how cities change and respond to the economic, technological, social, and political forces that shape urban development in North America. It is important to have a framework for understanding the risks and rewards in real estate investing. In measuring return, consideration must be given to both investment appreciation and the cash flow generated over the life of a project. In addition, metrics are presented that can be useful in assessing the financial feasibility of a real estate development proposal. This book also provides an overview of the forces of supply and demand that gauge the potential market for a new project. In determining the size of "residual demand", estimates for population growth, family formation, and new development are important. All development projects fall under the auspices of one or several jurisdictions. Though every jurisdiction has different rules and procedures, basic knowledge of the planning process is critical to the success of all development projects regardless of location. Furthermore, all projects have a legal component. Basic issues of land ownership, property rights, property transfer, and land registration are reviewed, all of which need to be considered when a property is sold or purchased. This book also provides a primary on the design and construction process. In constructing a building, a team of experts is first required to design the architectural, structural, and heating, ventilation, and air conditioning (HVAC) systems for a building. An overview is provided of each building system: wood, concrete, and steel. Critical to a successful real estate development, project management principles for the processes of design, bidding, and construction are explored, with close attention given to budgeting, scheduling, and resource management. Essential reading for anyone involved in the development of our built environment, this is a must-read introduction for students and professionals in architecture, urban planning, engineering or real estate seeking an approachable and broad view of real estate development and finance.

Theory and Design of Bridges Petros P. Xanthakos 1994 Indeed, this essential working reference for practicing civil engineers uniquely reflects today's gradual transition from allowable stress design to Load and Resistance Factor Design by presenting LRFD specifications - developed from research requested by AASH-TO and initiated by the NCHRP - which spell out new provisions in areas ranging from load models and load factors to bridge substructure elements and foundations.

Nature-Inspired Computing Nazmul H. Siddique 2017-05-19 Nature-Inspired Computing: Physics and Chemistry-Based Algorithms provides a comprehensive introduction to the methodologies and algorithms in nature-inspired computing, with an emphasis on applications to real-life engineering problems. The research interest for Nature-inspired Computing has grown considerably exploring different phenomena observed in nature and basic principles of physics, chemistry, and biology. The discipline has reached a mature stage and the field has been well-established. This endeavour is another attempt at investigation into various computational schemes inspired from nature, which are presented in this book with the development of a suitable framework and industrial applications. Designed for senior undergraduates, postgraduates, research students, and professionals, the book is written at a comprehensible level for students who have some basic knowledge of calculus and differential equations, and some exposure to optimization theory. Due to the focus on search and optimization, the book is also appropriate for electrical, control, civil, industrial and manufacturing engineering, business, and economics students, as well as those in computer and information sciences. With the mathematical and programming references and applications in each chapter, the book is self-contained, and can also serve as a reference for researchers and scientists in the fields of system science, natural computing, and optimization.

Canadian Journal of Civil Engineering 1979

Report 1972

Concrete Abstracts 1985

Israel Journal of Technology 1973

Asce, 1982 American Society of Civil Engineers 1982-12

Criteria and Methods of Structural Optimization Andrzej M Brandt 1987-06-30 This book is intended to serve all those who are interested in structural opti mization, whether they work in this field or study it for other purposes. Rapid growth of interest in the cognitive aspects of optimization and the increas ing demands that the present day engineer has to meet in modern design have created the need of a monographic treatment of the subject. The vast number and wide range of structural optimization problems formulated and investigated in the last twenty years call for an attempt to sum up the pres ent state of knowledge in this domain and to outline the directions of its further development. The present authors undertook this task, hoping that the result would stimulate further work towards finding new methods and solutions and increasing the range of applications of the optimization methods to structural design. The immediate aim of the book is to present the basic criteria and methods of optimization and to provide a reference guide to the most important publications in the field. 'The book consists of fourteen chapters. Chapter 1 introduces the basic concepts, definitions and assumptions relating to structural optimization. Chapter 2 gives the foundations of optimization for minimum elastic strain potential or maximum rigidity, and sets a basis for optimization of bar, plate and lattice structures. Chapter 3 presents criteria of strength design and their applications to plane structures.

The Advances in Civil Engineering Materials Mokhtar Awang 2018-09-17 This volume presents a compilation of research works in civil engineering. All manuscripts in this volume were presented during the 2nd International Conference on Architecture and Civil Engineering (ICACE 2018) which was held at Parkroyal Hotel, Penang, Malaysia on 09–10 May 2018. The editor(s) of the proceeding

would like to express the utmost gratitude and thanks to all reviewers in the technical team for making this volume a success.

Simplified Design of Reinforced Concrete Harry Parker 1984-10-30 The updated version of this classic text explains the principles involved in the design of concrete structure buildings and summarizes the primary requirements of current building codes. Developed for self-study use as well as classroom instruction, this book requires little mathematical or engineering expertise. Example calculations are given for the practical design of contemporary structures.

Tall Building Design Bungale S. Taranath 2016-10-04 Addresses the Question Frequently Proposed to the Designer by Architects: "Can We Do This? Offering guidance on how to use code-based procedures while at the same time providing an understanding of why provisions are necessary, Tall Building Design: Steel, Concrete, and Composite Systems methodically explores the structural behavior of steel, concrete, and composite members and systems. This text establishes the notion that design is a creative process, and not just an execution of framing proposals. It cultivates imaginative approaches by presenting examples specifically related to essential building codes and standards. Tying together precision and accuracy—it also bridges the gap between two design approaches—one based on initiative skill and the other based on computer skill. The book explains loads and load combinations typically used in building design, explores methods for determining design wind loads using the provisions of ASCE 7-10, and examines wind tunnel procedures. It defines conceptual seismic design, as the avoidance or minimization of problems created by the effects of seismic excitation. It introduces the concept of performance-based design (PBD). It also addresses serviceability considerations, prediction of tall building motions, damping devices, seismic isolation, blast-resistant design, and progressive collapse. The final chapters explain gravity and lateral systems for steel, concrete, and composite buildings. The Book Also Considers: Preliminary analysis and design techniques The structural rehabilitation of seismically vulnerable steel and concrete buildings Design differences between code-sponsored approaches The concept of ductility trade-off for strength Tall Building Design: Steel, Concrete, and Composite Systems is a structural design guide and reference for practicing engineers and educators, as well as recent graduates entering the structural engineering profession. This text examines all major concrete, steel, and composite building systems, and uses the most up-to-date building codes.

Applied Science & Technology Index 1984

American Doctoral Dissertations 1993

Journal - Prestressed Concrete Institute Prestressed Concrete Institute 1973