

Jain Indrajeet M Fluid Mechanics

Environmental engineers continue to rely on the leading resource in the field on the principles and practice of water resources engineering. The second edition now provides them with the most up-to-date information along with a remarkable range and depth of coverage. Two new chapters have been added that explore water resources sustainability and water resources management for sustainability. New and updated graphics have also been integrated throughout the chapters to reinforce important concepts. Additional end-of-chapter questions have been added as well to build understanding. Environmental engineers will refer to this text throughout their careers. Reinforced concrete structures are subjected to a complex variety of stresses and strains. The four basic actions are bending, axial load, shear, and torsion. Presently, there is no single comprehensive theory for reinforced concrete structural behavior that addresses all of these basic actions and their interactions. Furthermore, there is little consistency among countries around the world in their building codes, especially in the specifications for shear and torsion. Unified Theory of Reinforced Concrete addresses this serious problem by integrating available information with new research data, developing one unified theory of reinforced concrete behavior that embraces and accounts for all four basic actions and their combinations. The theory is presented in a systematic manner, elucidating its five component models from a pedagogical and historical perspective while emphasizing the fundamental principles of equilibrium, compatibility, and the constitutive laws of materials. The significance of relationships between models and their intrinsic consistencies are emphasized. This theory can serve as the foundation on which to build a universal design code that can be adopted internationally. In addition to frames, the book explains the fundamental concept of the design of wall-type and shell-type structures. Unified Theory of Reinforced Concrete will be an important reference for all engineers involved in the design of concrete structures. The book can also serve well as a text for a graduate course in structural engineering.

India Who's who Dynamics of Structure and Foundation - A Unified Approach
1. Fundamentals CRC Press

This Book Has Consistently Been Used By Students Studying The First Course In Food Science And Nutrition. In Several Universities, Diet Therapy Topics Have Been Added In The Curricula Of This Course. Therefore, Diet Therapy Has Been Added In This Revision, With A Hope Of Meeting The Changing Needs Of The Readers In This Area. The Revised Edition Incorporates Various Other Subjects, Which Are More Or Less Related To The Useful Subjects, Like Nursing, Education, Art, Social Sciences, Home Science, Medical And Paramedical Sciences, Agriculture, Community Health, Environmental Health And Pediatrics Etc. The Book Is Intended To Be An Ideal Textbook Encompassing The Following Aspects: * Introduction To The Study Of Nutrition * Nutrients And Energy * Foods * Meal Planning And Management * Diet Therapy Various Modifications Have Been Done Along With Clear Illustrations, Charts and Tables For A Visualised Practical Knowledge. Every Chapter Is Presented In A Beautiful Style With An Understandable Approach. Abbreviations Of All Terms Are Given. Glossary Is Also Available At The End For Clear Understanding. Appendices, Food Exchange Lists, Recommended Dietary Allowances For Indians And Food

Composition Tables Have Also Been Included. So Many Other Useful Informations Are Given, Regarding The Food And Dietary Habits According To The Age And Height Of Males/Females. We Hope This Textbook Would Fulfil The Goal Of Serving The Cause In An Appropriate Manner Nutrition For A Disease-Free Society.

Advances in the Chemistry and Physics of Materials is a compilation of topics on the recent developments in the areas of Materials Science. Materials Science has been a subject of major interest which has garnered significant attention over the years. Chemists and physicists have contributed extensively to this frontier research area and their synergistic efforts have led to the discovery of many new, exciting materials involving novel functions. In the light of the growing importance of the field of Materials Science, and owing to the fact that it is a subject that holds a lot of promise, internationally renowned Materials Chemist Prof. C.N.R Rao along with his colleagues at the School of Advanced Materials, at JNCASR, have compiled the contents of this book to highlight and showcase the emerging trends in materials science. It touches upon topics spanning over nanomaterials and various other classes of energy materials for harvesting, storage and conversion. The relatively new and exciting range of materials such as supramolecular, soft and biomaterials have been introduced and elucidated, in the book. Special emphasis has been laid on the synthesis, phenomena and characterization of these kinds of materials. Theoretical and Computational Chemistry has played an important role in the growth of Materials Science as a discipline, and the book covers a special topical session on the theoretical efforts in materials research. The book, packed with theory and practical aspects in a crisp and concise manner, aims to take the reader on an intense scientific expedition. The compilation provides an insight into the chemistry and physics of materials and presents up-to-date status reports which would, undoubtedly, be useful to practitioners, teachers and students.

Recent advances in stem cell biology, nanotechnology and gene therapy have opened new avenues for therapeutics. The availability of molecular therapeutics that rely on the delivery of DNA, RNA or proteins, harnessing enhanced delivery with nanoparticles, and the regenerative potential of stem cells (adult, embryonic or induced pluripotent stem cells) has had a tremendous impact on translational medicine. The chapters in this book cover a range of strategies for molecular and cellular therapies for human disease, their advantages, and central challenges to their widespread application. Potential solutions to these issues are also discussed in detail. Further, the book addresses numerous advances in the field of molecular therapeutics that will be of interest to the general scientific community. Lastly, the book provides specific examples of disease conditions for which these strategies have been transferred to the clinic. As such, it will be extremely useful for all students, researchers and clinicians working in the field of translational medicine and molecular therapeutics.

I feel elevated in presenting the New edition of this standard treatise. The favourable reception, which the previous edition and reprints of this book have enjoyed, is a matter of great satisfaction for me. I wish to express my sincere thanks to numerous professors and students for their valuable suggestions and recommending the patronise this standard treatise in the future also.

The book presents high-quality papers presented at 3rd International Conference on Applications of Fluid Dynamics (ICAFD 2016) organized by Department of Applied

Mathematics, ISM Dhanbad, Jharkhand, India in association with Fluid Mechanics Group, University of Botswana, Botswana. The main theme of the Conference is "Sustainable Development in Africa and Asia in context of Fluid Dynamics and Modeling Approaches". The book is divided into seven sections covering all applications of fluid dynamics and their allied areas such as fluid dynamics, nanofluid, heat and mass transfer, numerical simulations and investigations of fluid dynamics, magnetohydrodynamics flow, solute transport modeling and water jet, and miscellaneous. The book is a good reference material for scientists and professionals working in the field of fluid dynamics.

Milk and dairy products are a vital source of nutrition for many people. They also present livelihood opportunities for farm families, processors and other stakeholders in dairy value chains. Consumers, industry and governments need up-to-date information on how milk and dairy products can contribute to human nutrition and how dairy-industry development can best contribute to increasing food security and alleviating poverty. This publication is unique in drawing together information on nutrition, and dairy-industry development, providing a rich source of useful material on the role of dairy products in human nutrition and the way that investment in dairy-industry development has changed.

Salient Features: - Comprehensive coverage of Hydraulic Machines in a student-friendly manner - Detailed concept review that aids in thorough and quick revision - Objective questions for competitive examinations as per new pattern - Solutions to numerical objective questions provided on Online Learning Center

Strength of Materials is an important subject in engineering in which concept of load transfer in a structure is developed and method of finding internal forces in the members of the structure is taught. This book is written strictly as per West Bengal polytechnic syllabus. The subject is developed systematically, using good number of figures and simple English. At the end of each chapter a set of problems are presented with answer so that the students can check their ability to solve problems. To enhance the ability of students to answer semester and examinations a set of descriptive type, fill in the blanks type, identifying true/ false type and multiple choice questions are also presented. Key Features • 100% coverage of new syllabus • Emphasis on practice of numerical for guaranteed success in exams • Lucidity and simplicity maintained throughout • Nationally acclaimed author of over 40 books

1 Compass 2 Plane table surveying 3 Levelling 4 Contouring 5 Theodolite surveying 6 Theodolite traversing 7 Tacheometry 8 Total station surveying 9 Curves 10 Construction survey 11 Space based positioning system Sample Questions Paper University Question Papers

The three-volume set LNCS 6838, LNAI 6839, and LNBI 6840 constitutes the thoroughly refereed post-conference proceedings of the 7th International Conference on Intelligent Computing, ICIC 2011, held in Zhengzhou, China, in August 2011. This volume contains 93 revised full papers, from a total of 281 presentations at the conference - carefully reviewed and selected from 832 initial submissions. The papers address all issues in Advanced Intelligent Computing, especially Methodologies and Applications, including theories, methodologies, and applications in science and technology. They include a range of techniques such as artificial intelligence, pattern recognition, evolutionary computing, informatics theories and applications, computational neuroscience and bioscience, soft computing, human computer interface issues, etc.

Based on the Institute of Concrete Technology's Advanced Concrete Technology Course, these four volumes are a comprehensive educational and reference resource for the concrete materials technologist. An expert international team of authors from research, academia and industry has been brought together to produce this unique series. Each volume deals with a different aspect of the subject: constituent materials, properties, processes and testing and quality. With worked examples, case studies and illustrations throughout, the books will be a key reference for the concrete specialist for years to come. Expert international authorship ensures the series is authoritative. Case studies and worked examples help the reader apply their knowledge to practice. Comprehensive coverage of the subject gives the reader all the necessary reference material.

This book gathers the best papers presented at the International Conference on Data Sciences, Security and Applications (ICDSSA 2019), organized by Bharati Vidyapeeth's College of Engineering, New Delhi, India, on 7–8 March 2019. The respective contributions present original research work, essential information, techniques and applications in the fields of data mining, artificial intelligence and computational intelligence. They also discuss machine learning in business intelligence and big data analytics, soft computing, security, cloud computing and the latest trends.

This book focuses on soft computing and how it can be applied to solve real-world problems arising in various domains, ranging from medicine and healthcare, to supply chain management, image processing and cryptanalysis. It gathers high-quality papers presented at the International Conference on Soft Computing: Theories and Applications (SoCTA 2019), organized by the National Institute of Technology Patna, India. Offering valuable insights into soft computing for teachers and researchers alike, the book will inspire further research in this dynamic field.

This book is the first that describes the practices of any stock exchange; it makes evident a high development of practices, with puts, calls, pools, and manipulations; and it appeared as early as the seventeenth century. Not inappropriately the stock exchange described is that of Amsterdam, a city which at the date of the volume's publication —1688 — was still the leading financial center of the world. The book, to be sure, is hardly a systematic account of the institution; the author pursued moral, philosophical, and rhetorical objectives, and, while saying a lot that seems now to be of little value, manages somehow to leave unsaid a great deal that would be of interest for us. Nevertheless, it represents, even in its peculiar form, a really important source of information about the stock exchange, and indeed about the Dutch business world of that period.

Turbulence is widely recognized as one of the outstanding problems of the physical sciences, but it still remains only partially understood despite having attracted the sustained efforts of many leading scientists for well over a century. In *A Voyage Through Turbulence* we are transported through a crucial period of the history of the subject via biographies of twelve of its great personalities, starting with Osborne Reynolds and his pioneering work of the 1880s. This book will provide absorbing reading for every scientist, mathematician and engineer interested in the history and culture of turbulence, as background to the intense challenges that this universal phenomenon still presents.

Over the past two decades concrete has enjoyed a renewed level of research and testing, resulting in the development of many new types of concrete. Through the use of various additives, production techniques and chemical processes, there is now a great degree of control over the properties of specific concretes for a wide range of applications. New theories, models and testing techniques have also been developed to push the envelope of concrete as a building material. There is no current textbook which brings all of these advancements together in a single volume. This book aims to bridge the gap between the traditional concrete technologies and the emerging state-of-the-art technologies which are gaining wider use.

This book constitutes the refereed proceedings of the 29th IFIP TC 11 International Information Security and Privacy Conference, SEC 2014, held in Marrakech, Morocco, in June 2014. The 27 revised full papers and 14 short papers presented were carefully reviewed and selected from 151 submissions. The papers are organized in topical sections on intrusion detection, data security, mobile security, privacy, metrics and risk assessment, information flow control, identity management, identifiability and decision making, malicious behavior and fraud and organizational security.

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.

This book constitutes the refereed proceedings of the First International Conference on Computer Science, Engineering and Information Technology, CCSEIT 2011, held in Tirunelveli, India, in September 2011. The 73 revised full papers were carefully reviewed and selected from more than 400 initial submissions. The papers feature significant contributions to all major fields of the Computer Science and Information Technology in theoretical and practical aspects.

With contributions by numerous experts

Despite significant development in earthquake analysis and design in the last 50 years or more, different structures related to industry, infra structure and human habitats get destroyed with monotonic regularity under strong motion earthquake. Even the recent earthquake in Mexico in September 2017 killed a number of people and destroyed national assets amounting to hundreds of millions of dollars. Careful evaluation of the technology reveals that, despite significant development in earthquake engineering, most of the books that are available on the market for reference are primarily focused towards buildings and framed type structures. It is accepted that during an earthquake it is buildings that get destroyed most and has been the biggest killers of human life. Yet, there are a number of structures like retaining walls, water tanks, Bunkers, silos, tall chimneys, bridge piers etc that are equally susceptible to earthquake, and if damaged can cause serious trouble and great economic distress. Unfortunately, many of these systems are analyzed by techniques that are too simplified, unrealistic/obsolete or nothing is done about them, ignoring completely the seismic effects, as no guidelines exist for their analysis/design (like seismic analysis of counterfort retaining walls or dynamic pressures on bunker walls etc.). This highly informative book addresses many of these items for which

there exists a significant gap in technology and yet remain an important life line of considerable commercial significance. The book is an outcome of authors' academic research and practice across the four continents (USA, Europe, Africa and Asia) in the last thirty two years, where many of these technologies have been put in practice, that got tested against real time earthquakes. All methods presented herein have been published previously in peer reviewed research journals and international conferences of repute before being put to practice.

Professionals working in international EPC and consulting engineering firms, graduates taking advanced courses in earthquake engineering, doctoral scholars pursuing research in earthquake engineering in the area of dynamic soil structure interaction (DSSI) and advanced under graduates wanting to self-learn and update themselves on earthquake analysis and design are greatly benefited from this book.

Designed to provide engineers with quick access to current and practical information on the dynamics of structure and foundation, this unique work, consisting of two separately available volumes, serves as a complete reference, especially for those involved with earthquake or dynamic analysis, or the design of machine foundations in the oil, gas, a Fully updated and expanded to reflect recent advances, this Fourth Edition of the classic text provides students and professional chemists with an excellent introduction to the principles and general properties of organometallic compounds, as well as including practical information on reaction mechanisms and detailed descriptions of contemporary applications.

The two volume set CCIS 1030 and 1031 constitutes the refereed proceedings of the Second International Conference on Computational Intelligence, Communications, and Business Analytics, CICBA 2018, held in Kalyani, India, in July 2018. The 76 revised full papers presented in the two volumes were carefully reviewed and selected from 240 submissions. The papers are organized in topical sections on computational intelligence; signal processing and communications; microelectronics, sensors, and intelligent networks; data science & advanced data analytics; intelligent data mining & data warehousing; and computational forensics (privacy and security).

The book comprises selected papers presented at the International Conference on Advanced Computing, Networking and Informatics (ICANI 2018), organized by Medi-Caps University, India. It includes novel and original research work on advanced computing, networking and informatics, and discusses a wide variety of industrial, engineering and scientific applications of the emerging techniques in the field of computing and networking.

This book features high-quality research papers presented at the 2nd International Conference on Computational Intelligence in Pattern Recognition (CIPR 2020), held at the Institute of Engineering and Management, Kolkata, West Bengal, India, on 4–5 January 2020. It includes practical development experiences in various areas of data analysis and pattern recognition, focusing on soft computing technologies, clustering and classification algorithms, rough set and fuzzy set theory, evolutionary computations, neural science and neural network systems, image processing, combinatorial pattern matching, social network analysis, audio and video data analysis, data mining in dynamic environments, bioinformatics, hybrid computing, big data analytics and deep learning. It also provides innovative solutions to the challenges in these areas and discusses recent developments.

This book gathers outstanding research papers presented at the International Conference on Frontiers in Computing and Systems (COMSYS 2020), held on January

13-15, 2019 at Jalpaiguri Government Engineering College, West Bengal, India and jointly organized by the Department of Computer Science & Engineering and Department of Electronics & Communication Engineering. The book presents the latest research and results in various fields of machine learning, computational intelligence, VLSI, networks and systems, computational biology, and security, making it a rich source of reference material for academia and industry alike

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