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BUILDING CONSTRUCTION

Vikas Publishing House Building Construction covers the entire process of building construction in detail, from the stage of planning and foundation building to the finishing stages like plastering, painting, electricity supply and woodwork. Each of the basic components of a building are covered separately, including doors, windows, floors, roof, walls, partitions, as are the basic finishing works like plumbing, damp-proofing, ventilation, air conditioning and so on. Essential features of construction like accoustics, fire-resistance and earthquake-resistant design are also covered. In keeping with contemporary needs, the book also inlcudes a chapter on the environmental impact of a building and how to make it green. The text, presented in simple, precise and reader-friendly language, is amply supported by figures and tables. Together with its companion volume, Building Materials, the book will meet the academic requirements of degree, as well as diploma courses in civil engineering and architecture.

MATHEMATICS FOR MACHINE LEARNING

Cambridge University Press The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition

and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered on the book's web site.

HANDBOOK ON BATTERY ENERGY STORAGE SYSTEM

Asian Development Bank This handbook serves as a guide to deploying battery energy storage technologies, specifically for distributed energy resources and flexibility resources. Battery energy storage technology is the most promising, rapidly developed technology as it provides higher efficiency and ease of control. With energy transition through decarbonization and decentralization, energy storage plays a significant role to enhance grid efficiency by alleviating volatility from demand and supply. Energy storage also contributes to the grid integration of renewable energy and promotion of microgrid.

LEED PRACTICES, CERTIFICATION, AND ACCREDITATION HANDBOOK

Butterworth-Heinemann Adopted in the United States and a number of other countries, LEED certification is the recognized standard for measuring building sustainability. Achieving LEED personal certification or project certification is the best way to demonstrate that the project is truly "green." Written by an architect with over 30 years of international experience, this book provides architects, designers, building owners, and construction engineers with an easy to understand guide to the nuts and bolts of LEED project and personal certification. Written in plain and easy to understand language, this ?hands on? book is designed to assist readers with all aspects of LEED certification. The handbook follows the rigorous third-party commissioning process, beginning with basic LEED concepts, and then carefully explains LEED documentation and technical requirements along with its standards, professional accreditation, and codes. The handbook provides readers with design strategies for sustainable site selection, and design process for high performance building and commissioning. Other important topics include green materials and products selection as well as strategies for ensuring Indoor Environmental Quality (IEQ), water efficiency and sanitary waste disposal. This handbook also offers readers a multitude of forms with expert guidance for their completion. Clear and authoritative in scope, LEED Practices and Accreditation Handbook provides architects, builders/owners, construction managers, and engineers with a reference that will help them to offer their clients, peers, and the public at large compelling proof that they have achieved their projects environmental goals and that the building is performing as designed. Instruction for completing LEED checklist and forms Detailed explanation of the third-party commissioning process Explains LEED documentation & technical requirements Topics include green materials and products selection

THE LAST LEAF

Dramatic Publishing

STRUCTURAL GLASS FACADES AND ENCLOSURES

John Wiley & Sons A structural glass facade is a glass wall in which the glass itself is part of the building structure. The fundamental technology of structural façade systems has undergone a transition over the past decade from an emergent, experimental building form to a mature, fully robust technology. The book documents, defines, and categorizes the current state of the art in long-span glass façade design and construction, with a focus on structural systems, glass cladding options and implementation strategies for innovative design. With illustrations and case studies, the book discusses designs and design practices; engineering issues; material, process and fabrication considerations, installation means and methods, and project delivery strategies. A must for architects, industrial designers, and interior designers.

ADVANCES IN ARCHITECTURE, ENGINEERING AND TECHNOLOGY

Springer Nature

BUILDING MATERIALS IN CIVIL ENGINEERING

Elsevier The construction of buildings and structures relies on having a thorough understanding of building materials. Without this knowledge it would not be possible to build safe, efficient and long-lasting buildings, structures and dwellings. Building materials in civil engineering provides an overview of the complete range of building materials available to civil engineers and all those involved in the building and construction industries. The book begins with an introductory chapter describing the basic properties of building materials. Further chapters cover the basic properties of building materials, air hardening cement materials, cement, concrete, building mortar, wall and roof materials, construction steel, wood, waterproof materials, building plastics, heat-insulating materials and sound-absorbing materials and finishing materials. Each chapter includes a series of questions, allowing readers to test the knowledge they have gained. A detailed appendix gives information on the testing of building materials. With its distinguished editor and eminent editorial committee, Building materials in civil engineering is a standard introductory reference book on the complete range of building materials. It is aimed at students of civil engineering, construction engineering and allied courses including water supply and drainage engineering. It also serves as a source of essential background information for engineers and professionals in the civil engineering and construction sector. Provides an overview of the complete range of building materials available to civil engineers and all those involved in the building and construction industries Explores the basic properties of building materials featuring air hardening cement materials, wall and roof materials and sound-absorbing materials Each chapter includes a series of questions, allowing readers to test the knowledge they have gained

MACHINE LEARNING WITH TENSORFLOW, SECOND EDITION

Manning Publications Updated with new code, new projects, and new chapters,

Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Summary Updated with new code, new projects, and new chapters, Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Written by NASA JPL Deputy CTO and Principal Data Scientist Chris Mattmann, all examples are accompanied by downloadable Jupyter Notebooks for a hands-on experience coding TensorFlow with Python. New and revised content expands coverage of core machine learning algorithms, and advancements in neural networks such as VGG-Face facial identification classifiers and deep speech classifiers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Supercharge your data analysis with machine learning! ML algorithms automatically improve as they process data, so results get better over time. You don't have to be a mathematician to use ML: Tools like Google's TensorFlow library help with complex calculations so you can focus on getting the answers you need. About the book Machine Learning with TensorFlow, Second Edition is a fully revised guide to building machine learning models using Python and TensorFlow. You'll apply core ML concepts to real-world challenges, such as sentiment analysis, text classification, and image recognition. Hands-on examples illustrate neural network techniques for deep speech processing, facial identification, and auto-encoding with CIFAR-10. What's inside Machine Learning with TensorFlow Choosing the best ML approaches Visualizing algorithms with TensorBoard Sharing results with collaborators Running models in Docker About the reader Requires intermediate Python skills and knowledge of general algebraic concepts like vectors and matrices. Examples use the super-stable 1.15.x branch of TensorFlow and TensorFlow 2.x. About the author Chris Mattmann is the Division Manager of the Artificial Intelligence, Analytics, and Innovation Organization at NASA Jet Propulsion Lab. The first edition of this book was written by Nishant Shukla with Kenneth Fricklas. Table of Contents PART 1 - YOUR MACHINE-LEARNING RIG 1 A machine-learning odyssey 2 TensorFlow essentials PART 2 - CORE LEARNING ALGORITHMS 3 Linear regression and beyond 4 Using regression for call-center volume prediction 5 A gentle introduction to classification 6 Sentiment classification: Large movie-review dataset 7 Automatically clustering data 8 Inferring user activity from Android accelerometer data 9 Hidden Markov models 10 Part-of-speech tagging and word-sense disambiguation PART 3 - THE NEURAL NETWORK PARADIGM 11 A peek into autoencoders 12 Applying autoencoders: The CIFAR-10 image dataset 13 Reinforcement learning 14 Convolutional neural networks 15 Building a real-world CNN: VGG-Face ad VGG-Face Lite 16 Recurrent neural networks 17 LSTMs and automatic speech recognition 18 Sequence-to-sequence models for chatbots 19 Utility landscape

EMBEDDED SYSTEM DESIGN

A UNIFIED HARDWARE / SOFTWARE INTRODUCTION

John Wiley & Sons This book introduces a modern approach to embedded system design, presenting software design and hardware design in a unified manner. It covers trends and challenges, introduces the design and use of single-purpose

processors ("hardware") and general-purpose processors ("software"), describes memories and buses, illustrates hardware/software tradeoffs using a digital camera example, and discusses advanced computation models, controls systems, chip technologies, and modern design tools. For courses found in EE, CS and other engineering departments.

PROBABILITY, STATISTICS, AND STOCHASTIC PROCESSES

John Wiley & Sons Praise for the First Edition ". . . an excellent textbook . . . well organized and neatly written." —Mathematical Reviews ". . . amazingly interesting . . ." —Technometrics Thoroughly updated to showcase the interrelationships between probability, statistics, and stochastic processes, Probability, Statistics, and Stochastic Processes, Second Edition prepares readers to collect, analyze, and characterize data in their chosen fields. Beginning with three chapters that develop probability theory and introduce the axioms of probability, random variables, and joint distributions, the book goes on to present limit theorems and simulation. The authors combine a rigorous, calculus-based development of theory with an intuitive approach that appeals to readers' sense of reason and logic. Including more than 400 examples that help illustrate concepts and theory, the Second Edition features new material on statistical inference and a wealth of newly added topics, including: Consistency of point estimators Large sample theory Bootstrap simulation Multiple hypothesis testing Fisher's exact test and Kolmogorov-Smirnov test Martingales, renewal processes, and Brownian motion One-way analysis of variance and the general linear model Extensively class-tested to ensure an accessible presentation, Probability, Statistics, and Stochastic Processes, Second Edition is an excellent book for courses on probability and statistics at the upper-undergraduate level. The book is also an ideal resource for scientists and engineers in the fields of statistics, mathematics, industrial management, and engineering.

PHYSICAL ACTIVITY IN NATURAL SETTINGS

GREEN AND BLUE EXERCISE

Routledge Exercise interactions with green and blue spaces offer low-cost, non-invasive solutions to public health challenges—particularly around mental health and obesity—and issues around environmental sustainability. Physical Activity in Natural Settings brings together multi-disciplinary, international research on physical activity, health and the natural environment, offering evidence-based guidance on implementing nature-based solutions at individual, patient and population levels. Divided over four sections, the book assesses the current research landscape, explores the underlying psychological and physiological mechanisms of the benefits of green exercise, details applied examples of physical activity in natural settings, and suggests future directions for research and practice. It features contributions from experts from around the world and covers topics including: Self-determination, nature and wellbeing Visual cognition and multisensory stimuli Nature's role in growing resilience Physical education and nature Mindfulness and green exercise Positive psychology and pro-environmental behaviour Timely and prescient, and

showcasing real-life examples of green exercise prescription, Physical Activity in Natural Settings is fascinating and important reading for any students or researchers in the psychology or physiology of physical activity and health, physical education or outdoor studies, and policy-makers and health professionals.

CONSTRUCTING ARCHITECTURE

MATERIALS, PROCESSES, STRUCTURES

Springer Science & Business Media Now in its second edition: the trailblazing introduction and textbook on construction includes a new section on translucent materials and an article on the use of glass.

SUSTAINABLE MOBILITY AND LOGISTICS

GEOTECHNICAL INSTRUMENTATION FOR MONITORING FIELD PERFORMANCE

John Wiley & Sons The first book on the subject written by a practitioner forpractitioners. Geotechnical Instrumentation for Monitoring FieldPerformance Geotechnical Instrumentation for Monitoring FieldPerformance goes far beyond a mere summary of the technicalliterature and manufacturers' brochures: it guides readersthrough the entire geotechnical instrumentation process, showingthem when to monitor safety and performance, and how to do it well.This comprehensive guide: * Describes the critical steps of planning monitoring programsusing geotechnical instrumentation, including what benefits can beachieved and how construction specifications should bewritten * Describes and evaluates monitoring methods and recommendsinstruments for monitoring groundwater pressure, deformations,total stress in soil, stress change in rock, temperature, and loadand strain in structural members * Offers detailed practical guidelines on instrument calibrations,installation and maintenance, and on the collection, processing,and interpretation of instrumentation data * Describes the role of geotechnical instrumentation during theconstruction and operation phases of civil engineering projects,including braced excavations, embankments on soft ground,embankment dams, excavated and natural slopes, undergroundexcavations, driving piles, and drilled shafts * Provides guidelines throughout the book on the best practices

INTERNATIONAL ENERGY CONSERVATION CODE

STUDY COMPANION

Cengage Learning The Study Companion is a comprehensive self-study guide for the 2009 International Energy Conservation Code. Ten study sessions cover administration and enforcement as well as energy efficiency in residential and commercial structures. A 20-question quiz is provided at the end of each study session.

ALTERNATIVE BUILDING MATERIALS TECHNOLOGY

New Age International

ENGLISH ROMANTIC POETRY

AN ANTHOLOGY

Courier Corporation Rich selection of 123 poems by six great English Romantic poets: William Blake (24 poems), William Wordsworth (27 poems), Samuel Taylor Coleridge (10 poems), Lord Byron (16 poems), Percy Bysshe Shelley (24 poems) and John Keats (22 poems). Introduction and brief commentaries on the poets. Includes 2 selections from the Common Core State Standards Initiative: "Ozymandias" and "Ode on a Grecian Urn."

NETWORKS, CROWDS, AND MARKETS

REASONING ABOUT A HIGHLY CONNECTED WORLD

Cambridge University Press Are all film stars linked to Kevin Bacon? Why do the stock markets rise and fall sharply on the strength of a vague rumour? How does gossip spread so quickly? Are we all related through six degrees of separation? There is a growing awareness of the complex networks that pervade modern society. We see them in the rapid growth of the Internet, the ease of global communication, the swift spread of news and information, and in the way epidemics and financial crises develop with startling speed and intensity. This introductory book on the new science of networks takes an interdisciplinary approach, using economics, sociology, computing, information science and applied mathematics to address fundamental questions about the links that connect us, and the ways that our decisions can have consequences for others.

ENVELOPE DESIGN FOR BUILDINGS

Architectual Press In this essential book Bill Allen imparts his experience gained over many years into the investigation and remedy of the numerous misfortunes which have afflicted buildings here and elsewhere. He provides not only a very substantial new body of reliable back-up for good modern design but also useful material for conservation, and for surveyors who have to evaluate premises or who become specification writers. This book is divided into two parts, the first dealing with external and internal climates and the second with the ways in which the main categories of basements, walls and roof systems operation to mediate between them. The external climate is a character-forming part of the book because our climate, though technically temperate, is powerfully intemperate with buildings. The text of the book becomes markedly relevant to climates of the UK kind, but designers can also see what to look for as risk factors in other climates and how to evaluate them; the global nature of modern practice makes this important. When it comes to the envelope itself, the author works his way up from below ground to the roof. After a chapter on basement design, be begins with cavity structures; these now fall into several sub-categories and because they exploit the cavity in different ways, he looks at what goes on in a cavity and then handles the sub-categories around this. Cavities now have two main functions, the traditional one of being a rain

barrier and the new one of being the repository for much increased insulation, and it is the latter that has greatly changed behaviour patterns because it results in sharp increases of the temperature range for the outer cladding, causing a lot of damage, and by the same token stabilises the inner leaf, opening the way for heating economies. There have been some disastrous fires in cavities, causing several deaths, and this risk is dealt with too. Curtain walls have a chapter to themselves and so do timber walls, and so many problems have developed in applied finishes and in doors and windows that these, too, have their own chapters. Finally roofs, flat and pitched, in two separate chapters. Flat roofs have a bad press and people are still suspicious about them, but we now know how to make them long-lasting and handsome, while pitched roofs have had a good press but sometimes don't deserve it. The corrosion of metal finishes especially lead, has be-devilled pitched roofs and given some terrible shocks; on one roof lead that was heavy enough to give 100 years protection failed in 10 months following official recommendations. The author is a well known consultant and is an authority in the field of 'oddities in buildings' Book provides a good thinking base for design decisions about new buildings Vital for architects, engineers, surveyors and clients

TWENTY LECTURES ON ALGORITHMIC GAME THEORY

Cambridge University Press Computer science and economics have engaged in a lively interaction over the past fifteen years, resulting in the new field of algorithmic game theory. Many problems that are central to modern computer science, ranging from resource allocation in large networks to online advertising, involve interactions between multiple self-interested parties. Economics and game theory offer a host of useful models and definitions to reason about such problems. The flow of ideas also travels in the other direction, and concepts from computer science are increasingly important in economics. This book grew out of the author's Stanford University course on algorithmic game theory, and aims to give students and other newcomers a quick and accessible introduction to many of the most important concepts in the field. The book also includes case studies on online advertising, wireless spectrum auctions, kidney exchange, and network management.

LEAN PROJECT DELIVERY AND INTEGRATED PRACTICES IN MODERN CONSTRUCTION

Routledge Lean Project Delivery and Integrated Practices in Modern Construction is the new and enhanced edition of the pioneering book Modern Construction by Lincoln H. Forbes and Syed M. Ahmed. This book provides a multi-faceted approach for applying lean methodologies to improve design and construction processes. Recognizing the wide diversity in the landscape of projects, and encompassing private and public sector activity, buildings and infrastructure, the book expands upon the detailed coverage of integrated project delivery and new lean tools and techniques to include: Greater emphasis on the importance of creating a lean culture and the initiatives required to transform the industry; Expanded discussions of the foundational writings in lean construction theory; Exploration of the synergies between "lean" and "green" initiatives; Specific procedures for modifying planning

and scheduling activities to improve the performance of the project team; Expanded sections on quality, and topics that have become a part of the lean lexicon, such as Choosing by Advantages, "line of balance"/location-based scheduling, virtual design teams, takt time planning and set-based design; Discussion questions for beginners and advanced lean practitioners; and Improved cross-referencing within the text to help the reader navigate the frameworks, techniques and tools to support the application of lean principles. The techniques described here enhance the use of resources, reducing waste, minimizing delays, increasing quality and reducing overall costs. They enable practitioners to improve the quality of the built environment, secure higher levels of customer/owner satisfaction, and simultaneously improve their profitability. This book is essential reading for all those wanting to be at the forefront of construction management and lean thinking.

RECOMMENDER SYSTEMS HANDBOOK

Springer This second edition of a well-received text, with 20 new chapters, presents a coherent and unified repository of recommender systems' major concepts, theories, methodologies, trends, and challenges. A variety of real-world applications and detailed case studies are included. In addition to wholesale revision of the existing chapters, this edition includes new topics including: decision making and recommender systems, reciprocal recommender systems, recommender systems in social networks, mobile recommender systems, explanations for recommender systems, music recommender systems, cross-domain recommendations, privacy in recommender systems, and semantic-based recommender systems. This multi-disciplinary handbook involves world-wide experts from diverse fields such as artificial intelligence, human-computer interaction, information retrieval, data mining, mathematics, statistics, adaptive user interfaces, decision support systems, psychology, marketing, and consumer behavior. Theoreticians and practitioners from these fields will find this reference to be an invaluable source of ideas, methods and techniques for developing more efficient, cost-effective and accurate recommender systems.

SUSTAINABLE INDUSTRIAL DESIGN AND WASTE MANAGEMENT

CRADLE-TO-CRADLE FOR SUSTAINABLE DEVELOPMENT

Academic Press Sustainable Industrial Design and Waste Management was inspired by the need to have a text that enveloped awareness and solutions to the ongoing issues and concerns of waste generated from industry. The development of science and technology has increased human capacity to extract resources from nature and it is only recently that industries are being held accountable for the detrimental effects the waste they produce has on the environment. Increased governmental research, regulation and corporate accountability are digging up issues pertaining to pollution control and waste treatment and environmental protection. The traditional approach for clinical waste, agricultural waste, industrial waste, and municipal waste are depleting our natural resources. The main objective of this book is to conserve the natural resources by approaching 100 % full utilization of all types of wastes by

cradle – to - cradle concepts, using Industrial Ecology methodology documented with case studies. Sustainable development and environmental protection cannot be achieved without establishing the concept of industrial ecology. The main tools necessary for establishing Industrial Ecology and sustainable development will be covered in the book. The concept of "industrial ecology will help the industrial system to be managed and operated more or less like a natural ecosystem hence causing as less damage as possible to the surrounding environment. Numerous case studies allow the reader to adapt concepts according to personal interest/field Reveals innovative technologies for the conservation of natural resources The only book which provides an integrated approach for sustainable development including tools, methodology, and indicators for sustainable development

MECHANICS OF PNEUMATIC TIRES

CONDENSED MATTER FIELD THEORY

Cambridge University Press Modern experimental developments in condensed matter and ultracold atom physics present formidable challenges to theorists. This book provides a pedagogical introduction to quantum field theory in many-particle physics, emphasizing the applicability of the formalism to concrete problems. This second edition contains two new chapters developing path integral approaches to classical and quantum nonequilibrium phenomena. Other chapters cover a range of topics, from the introduction of many-body techniques and functional integration, to renormalization group methods, the theory of response functions, and topology. Conceptual aspects and formal methodology are emphasized, but the discussion focuses on practical experimental applications drawn largely from condensed matter physics and neighboring fields. Extended and challenging problems with fully worked solutions provide a bridge between formal manipulations and research-oriented thinking. Aimed at elevating graduate students to a level where they can engage in independent research, this book complements graduate level courses on many-particle theory.

GLASS IN ARCHITECTURE

Phaidon Press An overview of the art and science of glass in architecture. This work provides a comprehensive overview of the art and science of glass use, demonstrating its historical importance in paving the way for a closer synergy between the designer and technologist. In addition to providing a historical context for glass architecture, the central section of the book presents 20 international detailed case studies of contemporary glass buildings showing the range of applications in a variety of situations, large and small. The book also explores the potential for the future, as new materials move from the abstract world of technical research into realization; a detailed appendix provides a full review of the science of glass, with a section on design and performance.

WUTHERING HEIGHTS

Diamond Pocket Books Pvt Ltd Emily Bronte was an English novelist & poet, who

is best known for her only novel, "Wuthering Heights: She has written poems also such as - 'Poems by Currer, Ellis and Action Bell', 'A Death Scene', 'To a Wreath of Snow, and lots Many. 'Wuthering Heights' is a highly imaginative work of passion and hate. Author was interested in mysticism and used to enjoy her solitude outdoors. This novel consists of those elements. It is now considered a classic of English literature. It was published under the pseudonym - "Ellis Bell" The story is full of high creativity and very imaginative. It narrates revenge also. It revolves around the main character, Heathcliff. Wuthering Heights is his farmhouse. Heathcliff is a young orphan, who was brought by Earnshaw at Wuthering Heights, 30 years ago. Earnshaw loves him (Heathcliff) so much, even neglects his own children. After death of Earnshaw, his elder son Hindley becomes the new master of Wuthering Heights and he allows Heathcliff to stay there only as a servant. Catherine is in love with Heathcliff, but doesn't show due to her social statue. The story thus seems very interesting and it ends with sights of the ghosts of Catherine and Heathcliff. It consists of many ups and downs Readers will Surely going to enjoy the novel. It's Heartthrobing and it's very difficult to getup without reading the novel - fully.

SELF-HEALING MATERIALS

FUNDAMENTALS, DESIGN STRATEGIES, AND APPLICATIONS

John Wiley & Sons The book covers self-healing concepts for all important material classes and their applications: polymers, ceramics, non-metallic and metallic coatings, alloys, nanocomposites, concretes and cements, as well as ionomers. Beginning with the inspiration from biological self-healing, its mimickry and conceptual transfer into approaches for the self-repair of artificially created materials, this book explains the strategies and mechanisms for the readers' basic understanding, then covers the different material classes and suitable self-healing concepts, giving examples for their application in practical situations. As the first book in this swiftly growing research field, it is of great interest to readers from many scientific and engineering disciplines, such as physics and chemistry, civil, architectural, mechanical, electronics and aerospace engineering.

PRINCIPLES OF VIBRATION CONTROL

IRRIGATION AND WATER RESOURCES ENGINEERING

New Age International 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.

BIOINFORMATICS ALGORITHMS

TECHNIQUES AND APPLICATIONS

John Wiley & Sons Presents algorithmic techniques for solving problems in bioinformatics, including applications that shed new light on molecular biology This book introduces algorithmic techniques in bioinformatics, emphasizing their application to solving novel problems in post-genomic molecular biology. Beginning with a thought-provoking discussion on the role of algorithms in twenty-first-century bioinformatics education, Bioinformatics Algorithms covers: General algorithmic techniques, including dynamic programming, graph-theoretical methods, hidden Markov models, the fast Fourier transform, seeding, and approximation algorithms Algorithms and tools for genome and sequence analysis, including formal and approximate models for gene clusters, advanced algorithms for non-overlapping local alignments and genome tilings, multiplex PCR primer set selection, and sequence/network motif finding Microarray design and analysis, including algorithms for microarray physical design, missing value imputation, and meta-analysis of gene expression data Algorithmic issues arising in the analysis of genetic variation across human population, including computational inference of haplotypes from genotype data and disease association search in case/control epidemiologic studies Algorithmic approaches in structural and systems biology, including topological and structural classification in biochemistry, and prediction of protein-protein and domain-domain interactions Each chapter begins with a self-contained introduction to a computational problem; continues with a brief review of the existing literature on the subject and an in-depth description of recent algorithmic and methodological developments; and concludes with a brief experimental study and a discussion of open research challenges. This clear and approachable presentation makes the book appropriate for researchers, practitioners, and graduate students alike.

AN INTRODUCTION TO MANIFOLDS

Springer Science & Business Media Manifolds, the higher-dimensional analogs of smooth curves and surfaces, are fundamental objects in modern mathematics. Combining aspects of algebra, topology, and analysis, manifolds have also been

applied to classical mechanics, general relativity, and quantum field theory. In this streamlined introduction to the subject, the theory of manifolds is presented with the aim of helping the reader achieve a rapid mastery of the essential topics. By the end of the book the reader should be able to compute, at least for simple spaces, one of the most basic topological invariants of a manifold, its de Rham cohomology. Along the way, the reader acquires the knowledge and skills necessary for further study of geometry and topology. The requisite point-set topology is included in an appendix of twenty pages; other appendices review facts from real analysis and linear algebra. Hints and solutions are provided to many of the exercises and problems. This work may be used as the text for a one-semester graduate or advanced undergraduate course, as well as by students engaged in self-study. Requiring only minimal undergraduate prerequisites, 'Introduction to Manifolds' is also an excellent foundation for Springer's GTM 82, 'Differential Forms in Algebraic Topology'.

MODERN ELECTRIC, HYBRID ELECTRIC, AND FUEL CELL VEHICLES

CRC Press "This book is an introduction to automotive technology, with specic reference to battery electric, hybrid electric, and fuel cell electric vehicles. It could serve electrical engineers who need to know more about automobiles or automotive engineers who need to know about electrical propulsion systems. For example, this reviewer, who is a specialist in electric machinery, could use this book to better understand the automobiles for which the reviewer is designing electric drive motors. An automotive engineer, on the other hand, might use it to better understand the nature of motors and electric storage systems for application in automobiles, trucks or motorcycles. The early chapters of the book are accessible to technically literate people who need to know something about cars. While the rst chapter is historical in nature, the second chapter is a good introduction to automobiles, including dynamics of propulsion and braking. The third chapter discusses, in some detail, spark ignition and compression ignition (Diesel) engines. The fourth chapter discusses the nature of transmission systems." —James Kirtley, Massachusetts Institute of Technology, USA "The third edition covers extensive topics in modern electric, hybrid electric, and fuel cell vehicles, in which the profound knowledge, mathematical modeling, simulations, and control are clearly presented. Featured with design of various vehicle drivetrains, as well as a multi-objective optimization software, it is an estimable work to meet the needs of automotive industry." —Haiyan Henry Zhang, Purdue University, USA "The extensive combined experience of the authors have produced an extensive volume covering a broad range but detailed topics on the principles, design and architectures of Modern Electric, Hybrid Electric, and Fuel Cell Vehicles in a well-structured, clear and concise manner. The volume offers a complete overview of technologies, their selection, integration & control, as well as an interesting Technical Overview of the Toyota Prius. The technical chapters are complemented with example problems and user guides to assist the reader in practical calculations through the use of common scientic computing packages. It will be of interest mainly to research postgraduates working in this eld as well as established academic researchers, industrial R&D engineers and allied professionals." —Christopher Donaghy-Sparg, Durham

University, United Kingdom The book deals with the fundamentals, theoretical bases, and design methodologies of conventional internal combustion engine (ICE) vehicles, electric vehicles (EVs), hybrid electric vehicles (HEVs), and fuel cell vehicles (FCVs). The design methodology is described in mathematical terms, step-by-step, and the topics are approached from the overall drive train system, not just individual components. Furthermore, in explaining the design methodology of each drive train, design examples are presented with simulation results. All the chapters have been updated, and two new chapters on Mild Hybrids and Optimal Sizing and Dimensioning and Control are also included • Chapters updated throughout the text. • New homework problems, solutions, and examples. • Includes two new chapters. • Features accompanying MATLABTM software.

UNIT OPERATIONS OF PARTICULATE SOLIDS

THEORY AND PRACTICE

CRC Press Suitable for practicing engineers and engineers in training, this book covers the most important operations involving particulate solids. Through clear explanations of theoretical principles and practical laboratory exercises, the text provides an understanding of the behavior of powders and pulverized systems. It also helps readers develop skills for operating, optimizing, and innovating particle processing technologies and machinery in order to carry out industrial operations. The author explores common bulk solids processing operations, including milling, agglomeration, fluidization, mixing, and solid-fluid separation.

WEAVING

CONVERSION OF YARN TO FABRIC

Elsevier In this book, the authors consider not only the design and operation of the loom itself, but also the preparation of yarns and packages, the design and structure of the fabrics produced, and the management aspects of weaving as an industrial process. A comprehensive reference book covering in depth the modern technology of woven fabric production. It will be of value of the practitioner and student alike. The information provided will enable the reader to judge how to produce a fabric suited to a particular purpose in the most economical way. The text is generously illustrated and there is a glossary of terms which is cross-referenced to the text and to an extensive list of cited literature. Originally published by Merrow 2nd edition 1982.

NEGOTIATING FOR SUCCESS: ESSENTIAL STRATEGIES AND SKILLS

Van Rye Publishing, LLC We all negotiate on a daily basis. We negotiate with our spouses, children, parents, and friends. We negotiate when we rent an apartment, buy a car, purchase a house, and apply for a job. Your ability to negotiate might even be the most important factor in your career advancement. Negotiation is also the key to business success. No organization can survive without contracts that produce profits. At a strategic level, businesses are concerned with value creation and achieving competitive advantage. But the success of high-level business strategies

depends on contracts made with suppliers, customers, and other stakeholders. Contracting capability—the ability to negotiate and perform successful contracts—is the most important function in any organization. This book is designed to help you achieve success in your personal negotiations and in your business transactions. The book is unique in two ways. First, the book not only covers negotiation concepts, but also provides practical actions you can take in future negotiations. This includes a Negotiation Planning Checklist and a completed example of the checklist for your use in future negotiations. The book also includes (1) a tool you can use to assess your negotiation style; (2) examples of "decision trees," which are useful in calculating your alternatives if your negotiation is unsuccessful; (3) a three-part strategy for increasing your power during negotiations; (4) a practical plan for analyzing your negotiations based on your reservation price, stretch goal, most-likely target, and zone of potential agreement; (5) clear guidelines on ethical standards that apply to negotiations; (6) factors to consider when deciding whether you should negotiate through an agent; (7) psychological tools you can use in negotiations—and traps to avoid when the other side uses them; (8) key elements of contract law that arise during negotiations; and (9) a checklist of factors to use when you evaluate your performance as a negotiator. Second, the book is unique in its holistic approach to the negotiation process. Other books often focus narrowly either on negotiation or on contract law. Furthermore, the books on negotiation tend to focus on what happens at the bargaining table without addressing the performance of an agreement. These books make the mistaken assumption that success is determined by evaluating the negotiation rather than evaluating performance of the agreement. Similarly, the books on contract law tend to focus on the legal requirements for a contract to be valid, thus giving short shrift to the negotiation process that precedes the contract and to the performance that follows. In the real world, the contracting process is not divided into independent phases. What happens during a negotiation has a profound impact on the contract and on the performance that follows. The contract's legal content should reflect the realities of what happened at the bargaining table and the performance that is to follow. This book, in contrast to others, covers the entire negotiation process in chronological order beginning with your decision to negotiate and continuing through the evaluation of your performance as a negotiator. A business executive in one of the negotiation seminars the author teaches as a University of Michigan professor summarized negotiation as follows: "Life is negotiation!" No one ever stated it better. As a mother with young children and as a company leader, the executive realized that negotiations are pervasive in our personal and business lives. With its emphasis on practical action, and with its chronological, holistic approach, this book provides a roadmap you can use when navigating through your life as a negotiator.

PROMOTING ENERGY EFFICIENCY INVESTMENTS

CASE STUDIES IN THE RESIDENTIAL SECTOR

Organization for Economic Existing buildings are responsible for over 40% of the world's total primary energy consumption. An impressive amount of energy could be saved simply by applying energy-efficient technologies. Yet, various market barriers

inhibit energy efficiency improvements in existing buildings and result in energy savings that are significantly lower than potentials. This publication provides illustrations of policies and measures implemented in five IEA member countries and the European Union. Each case includes relevant background and contextual information, as well as a detailed evaluation of each policy according to five pre-defined criteria: relevance, effectiveness, flexibility, clarity and sustainability.

INTRODUCTION TO EARTHQUAKE ENGINEERING

Steve Parish

INTRODUCTION TO TIME SERIES AND FORECASTING

Springer Science & Business Media Some of the key mathematical results are stated without proof in order to make the underlying theory acccessible to a wider audience. The book assumes a knowledge only of basic calculus, matrix algebra, and elementary statistics. The emphasis is on methods and the analysis of data sets. The logic and tools of model-building for stationary and non-stationary time series are developed in detail and numerous exercises, many of which make use of the included computer package, provide the reader with ample opportunity to develop skills in this area. The core of the book covers stationary processes, ARMA and ARIMA processes, multivariate time series and state-space models, with an optional chapter on spectral analysis. Additional topics include harmonic regression, the Burg and Hannan-Rissanen algorithms, unit roots, regression with ARMA errors, structural models, the EM algorithm, generalized state-space models with applications to time series of count data, exponential smoothing, the Holt-Winters and ARAR forecasting algorithms, transfer function models and intervention analysis. Brief introducitons are also given to cointegration and to non-linear, continuous-time and long-memory models. The time series package included in the back of the book is a slightly modified version of the package ITSM, published separately as ITSM for Windows, by Springer-Verlag, 1994. It does not handle such large data sets as ITSM for Windows, but like the latter, runs on IBM-PC compatible computers under either DOS or Windows (version 3.1 or later). The programs are all menu-driven so that the reader can immediately apply the techniques in the book to time series data, with a minimal investment of time in the computational and algorithmic aspects of the analysis.