

Power System Analysis Halder And Chakrabarti

Power System Analysis: Operation And Control 3Rd Ed. **Power Transmission System Analysis Against Faults and Attacks** **Power System Small Signal Stability Analysis and Control** **Hydro-Environmental Analysis** **Computer Information Systems - Analysis and Technologies** **Artificial Intelligence in Power System Optimization** **Proceedings of International Conference on Frontiers in Computing and Systems** **Application of Artificial Neural Network in Power System Analysis** **Proceedings of International Conference on Industrial Instrumentation and Control** **Information Systems Security A Comprehensive Approach to Implement Monitoring and State Estimation in Distribution Grids with a Low Number of Measurements** **Uncertainty Modeling In Vibration, Control And Fuzzy Analysis Of Structural Systems** **Computer Information Systems and Industrial Management** **Electrical Design of a 400 kV Composite Tower** **Power System Dynamics** **ELECTRICAL POWER SYSTEMS Research Anthology on Telemedicine Efficacy, Adoption, and Impact on Healthcare Delivery** **Advances in Smart Grid Power System** **Topics on System Analysis and Integrated Water Resources Management Risk Based Technologies** **Designing Sustainable Urban Futures : Concepts and Practices from Different Countries** **Transactions on Large-Scale Data- and Knowledge-Centered Systems XXIII** **Uncertainty Modeling in Finite Element, Fatigue and Stability of Systems** **Renewable Energy and Sustainability** **Transactions on Large-Scale Data- and Knowledge-Centered Systems XXXVI** **Advances in Computing and Data Sciences** **Control Strategy for Time-Delay Systems** **Advances in Micro-Bioreactor Design for Organ Cell Studies** **Digital Business and Intelligent Systems** **Radiochemistry** **Computational Intelligence Paradigms for Optimization Problems Using MATLAB@/SIMULINK@** **Advanced Computing and Systems for Security** **Meta-Heuristics Optimization Algorithms in Engineering, Business, Economics, and Finance** **Emerging Technologies in Data Mining and Information Security** **System-on-Chip Test Architectures** **Current Trends in Reliability, Availability, Maintainability and Safety** **Handbook of Research on Synthesizing Human Emotion in Intelligent Systems and Robotics** **Recent Developments in Structural Health Monitoring And Assessment - Opportunities And Challenges: Bridges, Buildings And Other Infrastructures** **Sustainable Fuel Technologies** **Handbook Handbook of Structural Engineering**

Yeah, reviewing a ebook **Power System Analysis Halder And Chakrabarti** could mount up your close friends listings. This is just one of the solutions for you to be successful. As understood, deed does not suggest that you have fantastic points.

Comprehending as capably as accord even more than additional will manage to pay for each success, bordering to, the statement as capably as acuteness of this **Power System Analysis Halder And Chakrabarti** can be taken as competently as picked to act.

Artificial Intelligence in Power System Optimization May 26 2022 With the considerable increase of AI applications, AI is being increasingly used to solve optimization problems in engineering. In the past two decades, the applications of artificial intelligence in power systems have attracted much research. This book covers the current level of applications of artificial intelligence to the optimization problems in power systems. This book serves as a textbook for graduate students in electric power system management and is also useful for those who are interested in using artificial intelligence in power system optimization.

Emerging Technologies in Data Mining and Information Security Dec 29 2019 This book features research papers presented at the International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2020) held at the University of Engineering & Management, Kolkata, India, during July 2020. The book is organized in three volumes and includes high-quality research work by academicians and industrial experts in the field of computing and communication, including full-length papers, research-in-progress papers, and case studies related to all the areas of data mining, machine learning, Internet of things (IoT), and information security.

Risk Based Technologies Mar 12 2021 This book presents selected topics in implementing a risk-based approach for complex engineering systems in general, and nuclear plants in particular. It addresses gap areas in implementing the risk-based approach to design, operation and regulation, covering materials reliability, digital system reliability, software reliability, human factor considerations, condition monitoring and prognosis, structural aspects in risk-based design as well as the application aspects like asset management for first-of-their-kind projects, strategic management and other academic aspect. Chapters are authored by renowned experts who address some of the identified challenges in implementation of risk-based approach in a clear and cogent manner, using illustrations, tables and photographs for ease of communication. This book will prove useful to researchers, professionals, and students alike.

Uncertainty Modeling In Vibration, Control And Fuzzy Analysis Of Structural Systems Nov 19 2021 This book gives an overview of the current state of uncertainty modeling in vibration, control, and fuzzy analysis of structural and mechanical systems. It is a coherent compendium written by leading experts and offers the reader a sampling of exciting research areas in several fast-growing branches in this field. Uncertainty modeling and analysis are becoming an integral part of system definition and modeling in many fields. The book consists of ten chapters that report the work of researchers, scientists and engineers on theoretical developments and diversified applications in engineering systems. They deal with modeling for vibration, control, and fuzzy analysis of structural and mechanical systems under uncertain conditions. The book designed for readers who are familiar with the fundamentals and wish to study a particular topic or use the book as an authoritative reference. It gives readers a sophisticated toolbox for tackling modeling problems in mechanical and structural systems in real-world situations. The book is part of a series on Stability, Vibration and Control of Structures, and provides vital information in these areas.

Meta-Heuristics Optimization Algorithms in Engineering, Business, Economics, and Finance Jan 28 2020 Optimization techniques have developed into a significant area concerning industrial, economics, business, and financial systems. With the development of engineering and financial systems, modern optimization has played an important role in service-centered operations and as such has attracted more attention to this field. Meta-heuristic hybrid optimization is a newly development mathematical framework based optimization technique. Designed by logicians, engineers, analysts, and many more, this technique aims to study the complexity of algorithms and problems. Meta-Heuristics Optimization Algorithms in Engineering, Business, Economics, and Finance explores the emerging study of meta-heuristics optimization algorithms and methods and their role in innovated real world practical applications. This book is a collection of research on the areas of meta-heuristics optimization algorithms in engineering, business, economics, and finance and aims to be a comprehensive reference for decision makers, managers, engineers, researchers, scientists, financiers, and economists as well as industrialists.

Power System Dynamics Aug 17 2021 This comprehensive text offers a detailed treatment of modelling of components and sub-systems for studying the transient and dynamic stability of large-scale power systems. Beginning with an overview of basic concepts of stability of simple systems, the book is devoted to in-depth coverage of modelling of synchronous machine and its excitation systems and speed governing controllers. Apart from covering the modelling aspects, methods of interfacing component models for the analysis of small-signal stability of power systems are presented in an easy-to-understand manner. The book also offers a study of simulation of transient stability of power systems as well as electromagnetic transients involving synchronous machines. Practical data pertaining to power systems, numerical examples and derivations are interspersed throughout the text to give students practice in applying key concepts. This text serves as a well-knit introduction to Power System Dynamics and is suitable for a one-semester course for the senior-level undergraduate students of electrical engineering and postgraduate students specializing in Power Systems. Contents: contents Preface 1. ONCE OVER LIGHTLY 2. POWER SYSTEM STABILITY—ELEMENTARY ANALYSIS 3. SYNCHRONOUS MACHINE MODELLING FOR POWER SYSTEM DYNAMICS 4. MODELLING OF OTHER COMPONENTS FOR DYNAMIC ANALYSIS 5. OVERVIEW OF NUMERICAL METHODS 6. SMALL-SIGNAL STABILITY ANALYSIS OF POWER SYSTEMS 7. TRANSIENT STABILITY ANALYSIS OF POWER SYSTEMS 8. SUBSYNCHRONOUS AND TORSIONAL OSCILLATIONS 9. ENHANCEMENT AND COUNTERMEASURES Index

Advances in Smart Grid Power System May 14 2021 **Advances in Smart Grid Power System: Network, Control and Security** discusses real world problems, solutions, and best practices in related fields. The book includes executable plans for smart grid systems, their network communications, tactics on protecting information, and response plans for cyber incidents. Moreover, it enables researchers and energy professionals to understand the future of energy delivery systems and security. Covering fundamental theory, mathematical formulations, practical implementations, and experimental testing procedures, this book gives readers invaluable insights into the field of power systems, their impact, and their importance in cybersecurity. Includes supporting illustrations and tables along with valuable end of chapter reference sets Provides a working guideline for the design and analysis of smart grids and their applications Features experimental testing procedures in smart grid power systems, communication networks, reliability, and cybersecurity

Power System Analysis: Operation And Control 3Rd Ed. Oct 31 2022 This comprehensive book is designed both for postgraduate students in power systems/energy systems engineering and a one-year course for senior undergraduate students of electrical engineering pursuing courses on power systems. The text gives a systematic exposition of topics such as modelling of power system components, load flow, automatic load frequency control, economic operation, voltage control and stability, study of faulted power systems, and optimal power flow. Besides giving a detailed discussion on the basic principles and practices, the text provides computer-based examples to illustrate the topics discussed. What makes the text unique is that it deals with the practice of computer for power system operation and control. This book also brings together the diverse aspects of power system operation and control and is a practical hands-on guide to theoretical developments and to the application of advanced methods in solving operational and control problems of electric power systems. The book should therefore be of immense benefit to the industry professionals and researchers as well.

Computational Intelligence Paradigms for Optimization Problems Using MATLAB@/SIMULINK@ Mar 31 2020 Considered one of the most innovative research directions, computational intelligence (CI) embraces techniques that use global search optimization, machine learning, approximate reasoning, and connectionist systems to develop efficient, robust, and easy-to-use solutions amidst multiple decision variables, complex constraints, and tumultuous environments. CI techniques involve a combination of learning, adaptation, and evolution used for intelligent applications. Computational Intelligence Paradigms for Optimization Problems Using MATLAB@/ Simulink@ explores the performance of CI in terms of knowledge representation, adaptability, optimality, and processing speed for different real-world optimization problems. Focusing on the practical implementation of CI techniques, this book: Discusses the role of CI paradigms in engineering applications such as unit commitment and economic load dispatch, harmonic reduction, load frequency control and automatic voltage regulation, job shop scheduling, multidepot vehicle routing, and digital image watermarking Explains the impact of CI on power systems, control systems, industrial automation, and image processing through the above-mentioned applications Shows how to apply CI algorithms to constraint-based optimization problems using MATLAB@ m-files and Simulink@ models Includes experimental analyses and results of test systems Computational Intelligence Paradigms for Optimization Problems Using MATLAB@/ Simulink@ provides a valuable reference for industry professionals and advanced undergraduate, postgraduate, and research students.

Control Strategy for Time-Delay Systems Aug 05 2020 **Control Strategy for Time-Delay Systems Part I: Concepts and Theories** covers all the important features of real-world practical applications which will be valuable to practicing engineers and specialists, especially given that delays are present in 99% of industrial processes. The book presents the views of the editors on promising research directions and future industrial applications in this area. Although the fundamentals of time-delay systems are discussed, the book focuses on the advanced modeling and control of such systems and will provide the analysis and test (or simulation) results of nearly every technique described. For this purpose, highly complex models are introduced to describe the mentioned new applications, which are characterized by time-varying delays with intermittent and stochastic nature, several types of nonlinearities, and the presence of different time-scales. Researchers, practitioners, and PhD students will gain insights into the prevailing trends in design and operation of real-time control systems, reviewing the shortcomings and future developments concerning practical system issues, such as standardization, protection, and design. Presents an overview of the most recent trends for time-delay systems Covers the important features of the real-world practical applications that can be valuable to practicing engineers and specialists Provides analysis and simulations results of the techniques described in the book

Transactions on Large-Scale Data- and Knowledge-Centered Systems XXIII Jan 10 2021 This volume, the 23rd issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems, focuses on information and security engineering. It contains five revised and extended papers selected from the proceedings of the First International Conference on Future Data and Security Engineering, FDSE 2014, held

in Ho Chi Minh City, Vietnam, November 19-21, 2014. The titles of the five papers are as follows: A Natural Language Processing Tool for White Collar Crime Investigation; Data Leakage Analysis of the Hibernate Query Language on a Propositional Formulae Domain; An Adaptive Similarity Search in Massive Datasets; Semantic Attack on anonymized Transactions; and Private Indexes for Mixed Encrypted Databases.

A Comprehensive Approach to Implement Monitoring and State Estimation in Distribution Grids with a Low Number of Measurements Dec 21 2021 This work addresses the monitoring and state estimation of electrical grids, especially at the distribution level. For economic and technical reasons, grid monitoring cannot be implemented with a similarly high measurement density as in transmission grids. Two new monitoring methods, which are designed for low measurement density, are therefore presented for use in real-time grid operation. First, a heuristic monitoring method is presented, which does not require pseudo-measurements and estimates voltage magnitudes and line loadings. Second, a monitoring method based on artificial neural networks is presented. With appropriate training, the method can estimate grid variables, e.g., voltage magnitudes or line loadings, with high accuracy. The methods are tested on thousands of test scenarios using a comprehensive evaluation methodology. For measurement infrastructure planning, a concept is presented to determine suitable measurement locations for the use of one of the monitoring methods. After optimization, several possible measurement configurations are presented with their average and maximum errors and the projected capital expenditures.

System-on-Chip Test Architectures Nov 27 2019 Modern electronics testing has a legacy of more than 40 years. The introduction of new technologies, especially nanometer technologies with 90nm or smaller geometry, has allowed the semiconductor industry to keep pace with the increased performance-capacity demands from consumers. As a result, semiconductor test costs have been growing steadily and typically amount to 40% of today's overall product cost. This book is a comprehensive guide to new VLSI Testing and Design-for-Testability techniques that will allow students, researchers, DFT practitioners, and VLSI designers to master quickly System-on-Chip Test architectures, for test debug and diagnosis of digital, memory, and analog/mixed-signal designs. Emphasizes VLSI Test principles and Design for Testability architectures, with numerous illustrations/examples. Most up-to-date coverage available, including Fault Tolerance, Low-Power Testing, Defect and Error Tolerance, Network-on-Chip (NOC) Testing, Software-Based Self-Testing, FPGA Testing, MEMS Testing, and System-In-Package (SIP) Testing, which are not yet available in any testing book. Covers the entire spectrum of VLSI testing and DFT architectures, from digital and analog, to memory circuits, and fault diagnosis and self-repair from digital to memory circuits. Discusses future nanotechnology test trends and challenges facing the nanometer design era; promising nanotechnology test techniques, including Quantum-Dots, Cellular Automata, Carbon-Nanotubes, and Hybrid Semiconductor/Nanowire/Molecular Computing. Practical problems at the end of each chapter for students.

Recent Developments In Structural Health Monitoring And Assessment - Opportunities And Challenges: Bridges, Buildings And Other Infrastructures Aug 24 2019 This is a follow up to Health Assessment of Engineered Structures. It incorporates the most recent developments in health assessment and monitoring of infrastructures covering several advanced conceptual frameworks, different types of sensors, and application potentials. Opportunities and challenges in theoretical, numerical, and experimental investigations generally overlooked in the profession are discussed. Also included are various types of Bayesian filtering concepts improving the commonly used techniques. Showing a multi-faceted, technology-based development in health assessment of infrastructures, several new approaches for health assessment are presented to assess the health of masonry structures, riveted steel railway bridges, and more, such as the use of:

Power Transmission System Analysis Against Faults and Attacks Sep 29 2022 The present-day power grid is basically a complex power transmission network with risks of failure due to unplanned attacks and contingencies, and therefore, assessment of vulnerability of transmission network is important and the process is based on contingency approach. This book deals with the methods of assessment of the grid network vulnerability and addresses the grid collapse problem due to cascaded failures of the transmission network following an attack or an unplanned contingency. Basic mitigation aspects for the network has been explored and the immunity of such a power transmission network against vulnerable collapse has been described using mathematical models.

Uncertainty Modeling in Finite Element, Fatigue and Stability of Systems Dec 09 2020 The functionality of modern structural, mechanical and electrical or electronic systems depends on their ability to perform under uncertain conditions. Consideration of uncertainties and their effect on system behavior is an essential and integral part of defining systems. In eleven chapters, leading experts present an overview of the current state of uncertainty modeling, analysis and design of large systems in four major areas: finite and boundary element methods (common structural analysis techniques), fatigue, stability analysis, and fault-tolerant systems. The content of this book is unique; it describes exciting research developments and challenges in emerging areas, and provide a sophisticated toolbox for tackling uncertainty modeling in real systems. Contents: Probabilistic Finite Element Analysis of Large Structural Systems (S Mahadevan) Reliability Evaluation of Structures Using Nonlinear SFEM (A Haldar & L-W Gao) Finite Element Method for Stochastic Structures Based on Inverse of Stiffness Matrix (I Elishakoff & Y-J Ren) The Weighted Integral Method and the Variability Response Function as Part of an SFEM Formulation (G Deodatis & L Graham) Response of a Vibrating Structure to Turbulent Wall Pressure: Fluid-Loaded Structure Modes Series and Boundary Element Method (P J T Filippi & D Mazzoni) Reliability-Based Structural Fatigue Damage Evaluation and Maintenance Using Non-Destructive Inspections (Z-W Zhao & A Haldar) Uncertainty Modeling in Structural Stability (B W Yeigh & M Shinozuka) Global Stability Analysis of Nonlinear Dynamical Systems (R Valéry Roy) Dynamic Random Snap-Buckling of Composite Shallow Shells (R Heuer et al.) Buckling Analysis and Design of Imperfection-Sensitive Structures (G V Palassopoulos) Basic Concepts of Fault-Tolerant Computing Design (C Aktouf et al.) Readership: Researchers in systems & knowledge engineering/artificial intelligence, civil, mechanical & electronic engineering, applied physics, applied mathematics, numerical and computing methods. keywords: "This book is a coherent compendium written by leading experts, and offers the reader a sampling of exciting research developments in these areas. It is designed for readers who are familiar with the fundamentals and wish to study a particular topic or use the book as an authoritative reference." Mathematical Reviews

Advances in Computing and Data Sciences Sep 05 2020 This two-volume book constitutes the post-conference proceedings of the 5th International Conference on Advances in Computing and Data Sciences, ICACDS 2021, held in Nashik, India, in April 2021. * The 103 full papers were carefully reviewed and selected from 781 submissions. Part II is devoted to data sciences, organizing principles, medical technologies, computational linguistics etc. * The conference was held virtually due to the COVID-19 pandemic.

Topics on System Analysis and Integrated Water Resources Management Apr 12 2021 The Integrated Water Resources Management (IWRM) paradigm has been worldwide recognized as the only feasible way currently available to ensure a sustainable perspective in planning and managing water resource systems. It is the inspiring principle of the Water Framework Directive, adopted by the European Union in 2000, as well as the main reference for all the water related activity of UNESCO in the third world countries. However, very often, real world attempts of implementing IWRM fail for the lack of a systematic approach and the inadequacy of tools and techniques adopted to address the intrinsically complex nature of water systems. This book explores recent and important contributions of System Analysis and Control Theory to the technical application of such paradigm and to the improvement of its theoretical basis. Its prior aim is to demonstrate how the modelling and computational difficulties posed by this paradigm might be significantly reduced by strengthening the efficiency of the solution techniques, instead of weakening the integration requirements. The first introductory chapter provides the reader with a logical map of the book, by formalizing the IWRM paradigm in a nine-step decisional procedure and by identifying the points where the contribution of System Analysis and Control Theory is more useful. The book is then organized in three sections whose chapters analyze some theoretical and mathematical aspects of these contributions or presents design applications. The outstanding research issues on the border between System Analysis and IWRM is depicted in the last chapter, where a pull of scientists and experts, coordinated by Prof. Tony Jakeman describe the foreseeable scenario. The book is based on the most outstanding contributions to the IFAC workshop on Modelling and Control for Participatory Planning and Managing Water Systems held in Venice, September 28- October 1, 2004. That workshop has been conceived and organized with the explicit purpose of producing this book: the maximum length of the papers was unusually long (of the size of a book chapter) and only five long oral presentations were planned each day, thus allowing for a very useful and constructive discussion. Contributions from the leading world specialists of the field Integration of technical modelling aspects and participatory decision-making Good compromise between theory and application

Designing Sustainable Urban Futures : Concepts and Practices from Different Countries Feb 08 2021

Application of Artificial Neural Network in Power System Analysis Mar 24 2022

Electrical Design of a 400 kV Composite Tower Sep 17 2021 This book presents an innovative concept for designing a 400 kV double circuit composite tower. The major challenges encountered by the authors in the electrical design process of the composite tower are addressed. They concern material selection for the full composite cross-arm core, electrical insulation of the cross-arm, electrical dimensioning of the full composite tower, lightning shielding performance and failure of the full composite tower. The electric field performance of the tower's insulation has been investigated theoretically by using finite element method and experimentally by testing different fiber reinforced polymers as candidates. The book reports in detail those finite element simulations and tests, together with the authors' recommendations on the most suitable materials and manufacturing process as well as conductor clamp designs for the cross-arm. Another important issue of the full composite tower, which concerns the environmental aspects of the full composite tower, has also been evaluated. This book offers a timely reference guide on a highly innovative topic, addressing researchers working on power transmission system both in industry and academia.

Information Systems Security Jan 22 2022 This book constitutes the refereed proceedings of the 12th International Conference on Information Systems Security, ICISS 2016, held in Jaipur, India, in December 2016. The 24 revised full papers and 8 short papers presented together with 4 invited papers were carefully reviewed and selected from 196 submissions. The papers address the following topics: attacks and mitigation; authentication; authorization and information flow control; crypto systems and protocols; network security and intrusion detection; privacy; software security; and wireless, mobile and IoT security.

Handbook of Research on Synthesizing Human Emotion in Intelligent Systems and Robotics Sep 25 2019 Emotions convey significant information through means of natural language analysis, embodiment, and emotional signing. Machines equipped with the ability to experience and interpret emotions perform better in complex environments and share in the emotionally-rich social context. The Handbook of Research on Synthesizing Human Emotion in Intelligent Systems and Robotics presents a solid framework for taking human-robot interaction closer to its full potential. Presenting a close look at all the factors involved in modeling emotions and applying a thorough understanding of human emotional recognition to technology, this volume appeals to active researchers in the fields of artificial emotions, artificial intelligence, computing, robotics, philosophy, and psychology, as well as to students interested in the research of synthetic emotions.

Sustainable Fuel Technologies Handbook Jul 24 2019 Sustainable Fuel Technologies Handbook provides a thorough thermodynamic analysis of new and current methods to give detailed insight into energy efficiency processes. This book includes the production methods, storage systems, and applications in various engines, as well as the safety related issues associated with all stages of production, storage, and utilization. With a comparison of cost implications and a techno-economic evaluation checking the feasibility of sustainable fuel use, this handbook is an invaluable reference source for researchers, professionals, and scientists working in the field of sustainability. The present power from solar, biomass, wind, hydrogen and other forms of renewable energy generated from sustainable sources can be harvested by various means and utilized in a variety of industries, supporting the need for clean fuels in modern society. However, there is still limited global availability and insufficient storage, which are required for efficient and effective harvesting of sustainable fuels. Discusses new and innovative sustainable fuel technologies Provides an integrated approach for modern tools, methodologies, and indicators in sustainable technologies Evaluates advanced fuel technologies alongside other transformational options

Advanced Computing and Systems for Security Feb 29 2020 The book contains the extended version of the works that have been presented and discussed in the Second International Doctoral Symposium on Applied Computation and Security Systems (ACSS 2015) held during May 23-25, 2015 in Kolkata, India. The symposium has been jointly organized by the AGH University of Science & Technology, Cracow, Poland; Ca' Foscari University, Venice, Italy and University of Calcutta, India. The book is divided into volumes and presents dissertation works in the areas of Image Processing, Biometrics-based Authentication, Soft Computing, Data Mining, Next Generation Networking and Network Security, Remote Healthcare, Communications, Embedded Systems, Software Engineering and Service Engineering.

Handbook of Structural Engineering Jun 22 2019 Continuing the tradition of the best-selling Handbook of Structural Engineering, this second edition is a comprehensive reference to the broad spectrum of structural engineering, encapsulating the theoretical, practical, and computational aspects of the field. The authors address a myriad of topics, covering both traditional and innovative approaches to analysis, design, and rehabilitation. The second edition has been expanded and reorganized to be more informative and cohesive. It also follows the developments that have emerged in the field since the previous edition, such as advanced analysis for structural design, performance-based design of earthquake-resistant structures, lifecycle evaluation and condition assessment of existing structures, the use of high-performance materials for construction, and design for safety. Additionally, the book includes numerous tables, charts, and equations, as well as extensive references, reading lists, and websites for further study or more in-depth information. Emphasizing practical applications and easy implementation, this text reflects the increasingly global nature of engineering, compiling the efforts of an international panel of experts from industry and academia. This is a necessity for anyone studying or practicing in the field of structural engineering. New to this edition Fundamental theories of structural dynamics Advanced analysis Wind and earthquake-resistant design Design of prestressed concrete, masonry, timber, and glass structures Properties, behavior, and use of high-performance steel, concrete, and fiber-reinforced polymers Semirigid frame structures Structural bracing Structural design for fire safety

Computer Information Systems - Analysis and Technologies Jun 26 2022 This book constitutes the refereed proceedings of the 10th International Conference on Computer Information Systems, CISIM 2011, held in Kolkata, India, in December 2011. The 30 revised full papers presented together with 6 keynote talks and plenary lectures were carefully reviewed and selected from 67 submissions. The papers are organized in topical sections on networking and its applications; agent-based systems; biometric applications; pattern recognition and image processing; industrial applications; algorithmic applications and data management; information and network security.

Digital Business and Intelligent Systems Jun 02 2020 This book constitutes the refereed proceedings of the 15th International Baltic Conference on Digital Business and Intelligent Systems, Baltic DB&IS 2022, held in Riga, Latvia, in July 2022. The 16 revised full papers and 1 short paper presented were carefully reviewed and selected from 42 submissions. The papers are centered around topics like architectures and quality of information systems, artificial intelligence in information systems, data and knowledge engineering, enterprise and information systems engineering, security of information systems.

Proceedings of International Conference on Industrial Instrumentation and Control Feb 20 2022 This book is a collection of selected high-quality research papers presented at the International Conference on Industrial Instrumentation and Control (ICI2C 2021), organized by the Department of Applied Electronics & Instrumentation Engineering, RCC Institute of Information Technology, Kolkata, India, during 20–August 22, 2021. It includes novel and innovative work from experts, practitioners, scientists and decision-makers from academia and industry. It covers topics such as instrumentation application in industry, instrumentation in electrical applications and instrumentation in recent trends with computation approach.

Computer Information Systems and Industrial Management Oct 19 2021 This book constitutes the proceedings of the 14th IFIP TC 8 International Conference on Computer Information Systems and Industrial Management, CISIM 2015, held in Warsaw, Poland, in September 2015. The 47 papers presented in this volume were carefully reviewed and selected from about 80 submissions. The main topics covered are biometrics, security systems, multimedia, classification and clustering with applications, and industrial management.

Research Anthology on Telemedicine Efficacy, Adoption, and Impact on Healthcare Delivery Jun 14 2021 Telemedicine, which involves electronic communications and software, provides the same clinical services to patients without the requirement of an in-person visit. Essentially, this is considered remote healthcare. Though telemedicine is not a new practice, it has become an increasingly popular form of healthcare delivery due to current events, including the COVID-19 pandemic. Not only are visits being moved onto virtual platforms, but additional materials and correspondence can remain in the digital sphere. Virtual lab results, digital imaging, medical diagnosis, and video consultations are just a few examples that encompass how telemedicine can be used for increased accessibility in healthcare delivery. With telemedicine being used in both the diagnosis and treatment of patients, technology in healthcare can be implemented at almost any phase of the patient experience. As healthcare delivery follows the digital shift, it is important to understand the technologies, benefits and challenges, and overall impacts of the remote healthcare experience. The Research Anthology on Telemedicine Efficacy, Adoption, and Impact on Healthcare Delivery presents the latest research on best practices for adopting telehealth into medical practices and its efficacy and solutions for the improvement of telemedicine, as well as addresses emerging challenges and opportunities, including issues such as securing patient data and providing healthcare accessibility to rural populations. Covering important themes that include doctor-patient relationships, tele-wound monitoring, and telemedicine regulations, this book is essential for healthcare professionals, doctors, medical students, academic and medical libraries, medical technologists, practitioners, stakeholders, researchers, academicians, and students interested in the emerging technological developments and solutions within the field of telemedicine.

Transactions on Large-Scale Data- and Knowledge-Centered Systems XXXVI Oct 07 2020 This volume, the 36th issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems, contains eight revised, extended papers selected from the 3rd International Conference on Future Data and Security Engineering, FDSE 2016, and the 10th International Conference on Advanced Computing and Applications, ACOMP 2016, which were held in Can Tho City, Vietnam, in November 2016. Topics covered include big data analytics, massive dataset mining, security and privacy, cryptography, access control, deep learning, crowd sourcing, database watermarking, and query processing and optimization.

Hydro-Environmental Analysis Jul 28 2022 Focusing on fundamental principles, Hydro-Environmental Analysis: Freshwater Environments presents in-depth information about freshwater environments and how they are influenced by regulation. It provides a holistic approach, exploring the factors that impact water quality and quantity, and the regulations, policy and management methods that are necessary to maintain this vital resource. It offers a historical viewpoint as well as an overview and foundation of the physical, chemical, and biological characteristics affecting the management of freshwater environments. The book concentrates on broad and general concepts, providing an interdisciplinary foundation. The author covers the methods of measurement and classification; chemical, physical, and biological characteristics; indicators of ecological health; and management and restoration. He also considers common indicators of environmental health; characteristics and operations of regulatory control structures; applicable laws and regulations; and restoration methods. The text delves into rivers and streams in the first half and lakes and reservoirs in the second half. Each section centers on the characteristics of those systems and methods of classification, and then moves on to discuss the physical, chemical, and biological characteristics of each. In the section on lakes and reservoirs, it examines the characteristics and operations of regulatory structures, and presents the methods commonly used to assess the environmental health or integrity of these water bodies. It also introduces considerations for restoration, and presents two unique aquatic environments: wetlands and reservoir tailwaters. Written from an engineering perspective, the book is an ideal introduction to the aquatic and limnological sciences for students of environmental science, as well as students of environmental engineering. It also serves as a reference for engineers and scientists involved in the management, regulation, or restoration of freshwater environments.

Proceedings of International Conference on Frontiers in Computing and Systems Apr 24 2022 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.

Power System Small Signal Stability Analysis and Control Aug 29 2022 Power System Small Signal Stability Analysis and Control, Second Edition analyzes severe outages due to the sustained growth of small signal oscillations in modern interconnected power systems. This fully revised edition addresses the continued expansion of power systems and the rapid upgrade to smart grid technologies that call for the implementation of robust and optimal controls. With a new chapter on MATLAB programs, this book describes how the application of power system damping controllers such as Power System Stabilizers and Flexible Alternating Current Transmission System controllers—namely Static Var Compensator and Thyristor Controlled Series Compensator—can guard against system disruptions. Detailed mathematical derivations, illustrated case studies, the application of soft computation techniques, designs of robust controllers, and end-of-chapter exercises make it a useful resource to researchers, practicing engineers, and post-graduates in electrical engineering. Considers power system small signal stability and provides various techniques to mitigate it Offers a new and straightforward method of finding the optimal location of PSS in a multi-machine power system Includes MATLAB programs and simulations for practical applications

Advances in Micro-Bioreactor Design for Organ Cell Studies Jul 04 2020 This book is a printed edition of the Special Issue "Advances in Micro-Bioreactor Design for Organ Cell Studies" that was published in Bioengineering

ELECTRICAL POWER SYSTEMS Jul 16 2021 This textbook, in its second edition aims to provide undergraduate students of Electrical Engineering with a unified treatment of all aspects of modern power systems, including generation, transmission and distribution of electric power, load flow studies, economic considerations, fault analysis and stability, high voltage phenomena, system protection, power control, and so on. The text systematically deals with the fundamental techniques in power systems, coupled with adequate analytical techniques and reference to practices in the field. Special emphasis is placed on the latest developments in power system engineering. The book will be equally useful to the postgraduate students specialising in power systems and practising engineers as a reference. **NEW TO THIS EDITION** • Chapters on Elements of Electric Power Generation and Power System Economics are thoroughly updated. • A new Chapter on Control of Active and Reactive Power is added.

Renewable Energy and Sustainability Nov 07 2020 Renewable Electricity and Sustainability: Prospects in Developing Economies is the first book of its kind to be dedicated entirely to the needs of emerging economies. It provides readers with a comprehensive review of current renewable energy technologies, their status in emerging economies, and the potential for sustainable renewable electricity generation in those countries. A multidisciplinary approach is used to assess the needs and challenges of each region, which is supported by quantitative analyses of the current and future potential for renewable electricity generation. Real-world examples are also provided from the respective electricity sectors of each region. This resource is a unique reference for graduates and researchers on the social, technical and economic landscape of renewable energy in emerging economies and would also be useful to NGO's and policymakers in developing countries or those working in sustainable development. Focuses specifically on the renewable energy and sustainability needs of developing economies Explores the renewable energy potential of developing countries and how this can be converted to sustainable electricity generation, supported by quantitative analyses and real-world case studies Addresses energy efficiency, energy management and the socioeconomic aspects of renewable electricity generation in developing countries, in addition to each renewable energy resource

Radiochemistry May 02 2020 Specialist Periodical Reports provide systematic and detailed review coverage of progress in the major areas of chemical research. Written by experts in their specialist fields the series creates a unique service for the active research chemist, supplying regular critical in-depth accounts of progress in particular areas of chemistry. For over 90 years The Royal Society of Chemistry and its predecessor, the Chemical Society, have been publishing reports charting developments in chemistry, which originally took the form of Annual Reports. However, by 1967 the whole spectrum of chemistry could no longer be contained within one volume and the series Specialist Periodical Reports was born. The Annual Reports themselves still existed but were divided into two, and subsequently three, volumes covering Inorganic, Organic, and Physical Chemistry. For more general coverage of the highlights in chemistry they remain a 'must'. Since that time the SPR series has altered according to the fluctuating degree of activity in various fields of chemistry. Some titles have remained unchanged, while others have altered their emphasis along with their titles; some have been combined under a new name whereas others have had to be discontinued. The current list of Specialist Periodical Reports can be seen on the inside flap of this volume.

Current Trends in Reliability, Availability, Maintainability and Safety Oct 26 2019 Containing selected papers from the ICRESH-ARMS 2015 conference in Lulea, Sweden, collected by editors with years of experiences in Reliability and maintenance modeling, risk assessment, and asset management, this work maximizes reader insights into the current trends in Reliability, Availability, Maintainability and Safety (RAMS) and Risk Management. Featuring a comprehensive analysis of the significance of the role of RAMS and Risk Management in the decision making process during the various phases of design, operation, maintenance, asset management and productivity in Industrial domains, these proceedings discuss key issues and challenges in the operation, maintenance and risk management of complex engineering systems and will serve as a valuable resource for those in the field.