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Electrical Drives Principles Planning Applications Solutions

This volume, a condensation of the highly regarded International Encyclopedia of Robotics, serves as an invaluable guide to the rapidly growing field of robotics. None of the articles from the earlier three-volume work has been omitted. Instead, the articles have been shortened and, where necessary, updated to provide a ready-reference tool for professionals seeking to understand and gain from the use of robots and automation.

Written by a wide variety of experts, the articles are cross-referenced and include extensive bibliographic information. The articles provide thorough coverage of all of the associated theoretical aspects of robotics as well as most of the present and future applications. Stressing readability, accuracy and ease of use, it gathers in one volume the result of years of knowledge and experience.

A unique approach to sensorless control and regulator design of electric drives Based on the author's vast industry experience and collaborative works with other industries, Control of Electric Machine Drive Systems is packed with tested, implemented, and verified ideas that engineers can apply to everyday problems in the field. Originally published

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in Korean as a textbook, this highly practical updated version features the latest information on the control of electric machines and apparatus, as well as a new chapter on sensorless control of AC machines, a topic not covered in any other publication. The book begins by explaining the features of the electric drive system and trends of development in related technologies, as well as the basic structure and operation principles of the electric machine. It also addresses steady state characteristics and control of the machines and the transformation of physical variables of AC machines using reference frame theory in order to provide a proper foundation for the material. The heart of the book reviews several control algorithms of electric machines and power converters, explaining active damping and how to regulate current, speed, and position in a feedback manner. Seung-Ki Sul introduces tricks to enhance the control performance of the electric machines, and the algorithm to detect the phase angle of an AC source and to control DC link voltages of power converters. Topics also covered are: Vector control Control algorithms for position/speed sensorless drive of AC machines Methods for identifying the parameters of electric machines and power converters The matrix algebra to model a three-phase AC machine in d-q-n axes Every chapter features exercise problems drawn from actual industry experience. The book also

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includes more than 300 figures and offers access to an FTP site, which provides MATLAB programs for selected problems. The book's practicality and realworld relatability make it an invaluable resource for professionals and engineers involved in the research and development of electric machine drive business, industrial drive designers, and senior undergraduate and graduate students. To obtain instructor materials please send an email to pressbooks@ieee.org To visit this book's FTP site to download MATLAB codes, please click on this link: ftp://ftp.wiley.com/public/sci_tech_med/electric_machine/ MATLAB codes are also downloadable from Wiley Booksupport Site at <http://booksupport.wiley.com>

Developments in Geographic Information Technology have raised the expectations of users. A static map is no longer enough; there is now demand for a dynamic representation. Time is of great importance when operating on real world geographical phenomena, especially when these are dynamic. Researchers in the field of Temporal Geographical Information Systems (TGIS) have been developing methods of incorporating time into geographical information systems. Spatio-temporal analysis embodies spatial modelling, spatio-temporal modelling and spatial reasoning and data mining. Advances in Spatio-Temporal Analysis contributes to the field of spatio-temporal analysis, presenting innovative ideas and examples that reflect

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current progress and achievements.

Automating with SIMATIC

Fossil Energy Update

College of Engineering

The Brown Boveri Review

A Designer's Guide

Congressional Record

Compendium of Hydrogen Energy: Hydrogen Production and Purification, the first text in a four-volume series, focuses on the production of hydrogen. As many experts believe that the hydrogen economy will eventually replace the fossil fuel economy as our primary source of energy, the text provides a timely discussion on this interesting topic. The text details the methods of hydrogen production using fossil fuels, also exploring sustainable extraction methods of hydrogen production from water and hydrogen purification processes. Provides a comprehensive understanding of the current methods used in the production of hydrogen. Discusses the hydrogen economy and its potential to replace fossil fuels as our primary source of energy. Details the methods of hydrogen production using fossil fuels, also exploring sustainable extraction methods of hydrogen production from water and hydrogen purification processes.

Small modular reactors (SMRs) are an advanced, safe type of nuclear reactor technology that are suitable for small and medium sized applications including both power and heat generation. In particular, their use as individual units or in combination to scale-up

capacity offer benefits in terms of siting, installation, operation, lifecycle and economics in comparison to the development of larger nuclear plant for centralised electricity power grids. Interest has increased in the research and development of SMRs for both developing countries as well as such additional cogeneration options as industrial/chemical process heat, desalination and district heating, and hydrogen production. This book reviews key issues in their development as well as international R&D in the field. Gives an overview of small modular reactor technology Reviews the design characteristics of integral pressurized water reactors and focuses on reactor core and fuel technologies, key reactor system components, instrumentation and control, human-system interfaces and safety Considers the economics, financing, licensing, construction methods and hybrid energy systems of small modular reactors Describes SMR development activities worldwide, and concludes with a discussion of how SMR deployment can contribute to the growth of developing countries

**Electrical Drives Principles, Planning, Applications, Solutions John Wiley & Sons
Warehousing and Transportation Logistics
Eco-friendly Innovations in Electricity
Transmission and Distribution Networks
Electric and Hybrid Buses for Urban Transport
The Electrical Journal
Electrical Drives
Sustainable Energy from Salinity Gradients**

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Calcium and Chemical Looping Technology for Power Generation and Carbon Dioxide (CO₂) Capture reviews the fundamental principles, systems, oxygen carriers, and carbon dioxide carriers relevant to chemical looping and combustion. Chapters review the market development, economics, and deployment of these systems, also providing detailed information on the variety of materials and processes that will help to shape the future of CO₂ capture ready power plants. Reviews the fundamental principles, systems, oxygen carriers, and carbon dioxide carriers relevant to calcium and chemical looping Provides a lucid explanation of advanced concepts and developments in calcium and chemical looping, high pressure systems, and alternative CO₂ carriers Presents information on the market development, economics, and deployment of these systems

Discover cutting-edge developments in electric power systems Stemming from cutting-edge research and education activities in the field of electric power systems, this book brings together the knowledge of a panel of experts in economics, the social sciences, and electric power systems. In ten concise and comprehensible chapters, the book provides unprecedented coverage of the operation, control, planning, and design of electric power systems. It also discusses: A framework for interdisciplinary research and education Modeling electricity markets Alternative economic criteria and proactive planning for transmission investment in deregulated power systems Payment cost minimization with demand bids and

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partial capacity cost compensations for day-ahead electricity auctions Dynamic oligopolistic competition in an electric power network and impacts of infrastructure disruptions Reliability in monopolies and duopolies Building an efficient, reliable, and sustainable power system Risk-based power system planning integrating social and economic direct and indirect costs Models for transmission expansion planning based on reconfiguration capacitor switching Next-generation optimization for electric power systems Most chapters end with a bibliography, closing remarks, conclusions, or future work. Economic Market Design and Planning for Electric Power Systems is an indispensable reference for policy-makers, executives and engineers of electric utilities, university faculty members, and graduate students and researchers in control theory, electric power systems, economics, and the social sciences.

Advances in Ground-Source Heat Pump Systems relates the latest information on source heat pumps (GSHPs), the types of heating and/or cooling systems that transfer heat from, or to, the ground, or, less commonly, a body of water. As one of the fastest growing renewable energy technologies, they are amongst the most energy efficient systems for space heating, cooling, and hot water production, with significant potential for a reduction in building carbon emissions. The book provides an authoritative overview of developments in closed loop GSHP systems, surface water, open loop systems, and related thermal energy storage systems, addressing the different technologies

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and component methods of analysis and optimization, among other subjects. Chapters on building integration and hybrid systems complete the volume. Provides the geological aspects and building integration covered together in one convenient volume Includes chapters on hybrid systems Presents carefully selected chapters that cover areas in which there is significant ongoing research Addresses geothermal heat pumps in both heating and cooling modes

Concise International Encyclopedia of Robotics

Calcium and Chemical Looping Technology for Power Generation and Carbon Dioxide (CO₂) Capture

How and Why It Happened

The Performance of Photovoltaic (PV) Systems

Control of Electric Machine Drive Systems

Applications and Automation

Compendium of Hydrogen Energy, Volume 2:

Hydrogen Storage, Distribution and

Infrastructure focuses on the storage and

transmission of hydrogen. As many experts

believe the hydrogen economy will, at some

point, replace the fossil fuel economy as

the primary source of the world's energy,

this book details hydrogen storage in pure

form, including chapters on hydrogen

liquefaction, slush production, as well as

underground and pipeline storage. Other

sections in the book explore physical and

chemical storage, including

environmentally sustainable methods of

hydrogen production from water, with final

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chapters dedicated to hydrogen distribution and infrastructure. Covers a wide array of methods for storing hydrogen, detailing hydrogen transport and the infrastructure required for transition to the hydrogen economy Written by leading academics in the fields of sustainable energy and experts from the world of industry Part of a very comprehensive compendium which looks at the entirety of the hydrogen energy economy

The Performance of Photovoltaic (PV) Systems: Modelling, Measurement and Assessment explores the system lifetime of a PV system and the energy output of the system over that lifetime. The book concentrates on the prediction, measurement, and assessment of the performance of PV systems, allowing the reader to obtain a thorough understanding of the performance issues and progress that has been made in optimizing system performance. Provides unique insights into the performance of photovoltaic systems Includes comprehensive and systematic coverage of a fascinating area in energy Written by an expert team of authors and a respected editor

Compendium of Hydrogen Energy Volume 4: Hydrogen Use, Safety and the Hydrogen Economy focuses on the uses of hydrogen.

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As many experts believe the hydrogen economy will, at some point, replace the fossil fuel economy as the primary source of the world's energy, this book investigates the uses of this energy, from transport, to stationary and portable applications, with final sections discussing the difficulties and possibilities of the widespread adoption of the hydrogen economy. Written by both leading academics in the fields of sustainable energy and experts from the world of industry Part of a very comprehensive compendium which across four volumes looks at the entirety of the hydrogen energy economy Covers a wide array of hydrogen uses, and details safety tactics, hydrogen applications in transport, and the hydrogen economy as a whole

Safe and Secure Transport and Storage of Radioactive Materials

Handbook of Small Modular Nuclear Reactors

Membrane Technologies for Biorefining

Directory of Selected Chinese Universities and Colleges Open to Foreign Students

Developments and Innovation

Advances in Battery Technologies for Electric Vehicles

From the point of view of a user this book covers all aspects of modern electrical

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drives. It is aimed at both users, who wish to understand, design, use, and maintain electrical drives, as well as specialists, technicians, engineers, and students, who wish to gain a comprehensive overview of electrical drives. Jens Weidauer and Richard Messer describe the principles of electrical drives, their design, and application, through to complex automation solutions. In the process, they introduce the entire spectrum of drive solutions available and their main applications. A special aspect is the combination of multiple drives to form a drive system, as well as the integration of drives into automation solutions. In simple and clear language, and supported with many diagrams, complex relationships are described and presented in an easy-to-understand way. The authors deliberately avoid a comprehensive mathematical treatment of their subject and instead focus on a coherent description of the active principles and relationships. As a result, the reader will be in a position to understand electrical drives as a whole and to solve drive-related problems in everyday professional life.

Warehousing and Transportation Logistics examines professional transport and

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warehousing logistics, and offers an overview of all logistics functions for the area of internal business logistics, so-called intra-logistics, with a particular focus on transport, warehousing and assembly logistics. It includes interfaces such as unit creation, material flow or goods storage as well as systems and management for planning or information to identify objects, control and processing of orders. This book does not just contain specialist knowledge for students of technical subjects, but it also serves as a practice-oriented book for the planning of bachelor and master degree theses, with a multitude of useful information and ideas. It is also a workbook for professional practitioners, production, planning and industrial engineers, who are specifically concerned with the planning side of this specialist area. Warehousing and Transport Logistics covers transportation, information systems, procurement, finance, performance metrics as well as warehousing and distribution. There are more than 200 examples with solutions outlining the disadvantages of depending, and about 250 questions to encourage independent learning.

The Congressional Record is the official

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record of the proceedings and debates of the United States Congress. It is published daily when Congress is in session. The Congressional Record began publication in 1873. Debates for sessions prior to 1873 are recorded in The Debates and Proceedings in the Congress of the United States (1789-1824), the Register of Debates in Congress (1824-1837), and the Congressional Globe (1833-1873)

The Engineering Index

Undergraduate Catalog

Hydrogen Storage, Distribution and Infrastructure

Nuclear Power Fad or Future?

Scientific and Technical Aerospace Reports

Nuclear Facilities

The book provides a complete overview of the SIMATIC automation system and the TIA Portal with the engineering tool STEP 7. "Automating with SIMATIC" addresses all those who - want to get an overview of the components of the system and their features, - wish to familiarize themselves with the topic of programmable logic controllers, or - intend to acquire basic knowledge about configuration, programming and interaction of the SIMATIC components. At first, the book introduces the hardware of SIMATIC S7-1200, S7-300, S7-400 and S7-1500, including the ET 200 peripheral modules. This is followed by describing the work with STEP 7 in the programming languages LAD, FBD, STL, SCL and S7-Graph, and offline testing with S7-PLCSIM. The next section describes the structure of the user program, which

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is followed by the illustration of the data communication between the controllers of the automation system as well as with the peripheral devices by use of the bus systems Profinet and Profibus. The book closes with a survey of the devices for operator control and process monitoring and their configuration software.

The latest developments in the field of hybrid electric vehicles Hybrid Electric Vehicles provides an introduction to hybrid vehicles, which include purely electric, hybrid electric, hybrid hydraulic, fuel cell vehicles, plug-in hybrid electric, and off-road hybrid vehicular systems. It focuses on the power and propulsion systems for these vehicles, including issues related to power and energy management. Other topics covered include hybrid vs. pure electric, HEV system architecture (including plug-in & charging control and hydraulic), off-road and other industrial utility vehicles, safety and EMC, storage technologies, vehicular power and energy management, diagnostics and prognostics, and electromechanical vibration issues. Hybrid Electric Vehicles, Second Edition is a comprehensively updated new edition with four new chapters covering recent advances in hybrid vehicle technology. New areas covered include battery modelling, charger design, and wireless charging. Substantial details have also been included on the architecture of hybrid excavators in the chapter related to special hybrid vehicles. Also included is a chapter providing an overview of hybrid vehicle technology, which offers a perspective on the current debate on sustainability and the environmental impact of hybrid and electric vehicle technology. Completely updated with new chapters Covers recent developments, breakthroughs, and technologies, including new drive topologies Explains HEV fundamentals and applications Offers a holistic perspective on vehicle electrification Hybrid Electric Vehicles: Principles and

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Applications with Practical Perspectives, Second Edition is a great resource for researchers and practitioners in the automotive industry, as well as for graduate students in automotive engineering.

Designing new nuclear facilities is an extraordinarily complex exercise, often requiring teams of specialists several hundred strong. Nuclear Facilities: A Designer's Guide provides an insight into each of the main contributors and shows how the whole design process is drawn together. Essential reading for all nuclear professionals: those already involved in the industry will gain knowledge that enables them to interact more effectively with colleagues in other disciplines. Its wealth of information will assist students and graduates in progressing more rapidly into fully rounded contributors to the nuclear facility design process. Whilst those joining nuclear from other industries will find a structured introduction to the nuclear world and discover what differentiates it from other spheres of engineering. A single, comprehensive text on nuclear facility design which covers all major aspects of the process Packed full of essential information, its complex subject matter is explained in a logical and comprehensible style Valuable to those involved in both new build and decommissioning projects Written by a highly respected expert in the nuclear industry

Hybrid Electric Vehicles

*The 2011 Fukushima Nuclear Power Plant Accident
Economic Market Design and Planning for Electric Power Systems*

*Hardware and Software, Configuration and Programming,
Data Communication, Operator Control and Monitoring
Instrument Construction*

Principles, Planning, Applications, Solutions

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This book provides a systematic assessment of the performance of electric and hybrid buses in urban areas on a daily basis and presents a complete set of technical scenarios to promote their efficient exploitation. It will also help readers understand how future buses will perform on specific roads and how the latest technologies can be integrated into existing fleets by proposing a methodology for evaluating the energy consumption for general and specific routes and scenarios. Covering all aspects relating to the daily use of electric and hybrid buses, including maintenance strategies, power train configuration, battery replacements, route evaluation, and charging speed, emphasis is placed on energy efficiency and effective implementation. Addressing key developments in intelligent vehicle technologies, the book presents innovative transportation technologies and a broad range of topics in transportation-related sustainability research, from vehicle systems and design, to mass transit systems. Since its creation in 1884, Engineering Index has covered virtually every major engineering innovation from around the world. It serves as the historical record of virtually every major engineering innovation of the 20th century.

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Recent content is a vital resource for current awareness, new production information, technological forecasting and competitive intelligence. The world's most comprehensive interdisciplinary engineering database, Engineering Index contains over 10.7 million records. Each year, over 500,000 new abstracts are added from over 5,000 scholarly journals, trade magazines, and conference proceedings. Coverage spans over 175 engineering disciplines from over 80 countries. Updated weekly.

There is currently significant interest in the development of small modular reactors (SMRs) for the generation of both electricity and process heat. SMRs offer potential benefits in terms of better affordability and enhanced safety, and can also be sited more flexibly than traditional nuclear plants. *Small Modular Reactors: Nuclear Power Fad or Future?* reviews SMR features, promises, and problems, also discussing what lies ahead for reactors of this type. The book is organized into three major parts with the first part focused on the role of energy, especially nuclear energy, for global development. It also provides a brief history of SMRs. The second major part presents basic nuclear power plant terminology and then discusses in

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depth the attributes of SMRs that distinguish them from traditional nuclear plants. The third and final major section discusses the current interest in SMRs from a customer's perspective and delineates several remaining hurdles that must be addressed to achieve wide-spread SMR deployment. Provides decision-makers in governments, business, and research with the needed background on small nuclear power and an overview of the current situation Presents a balanced discussion of the many advantages of SMRs and the challenges they face Written by a highly respected expert in the nuclear industry

Compendium of Hydrogen Energy

Modelling, Measurement and Assessment

University of Michigan Official Publication

Small Modular Reactors

Soviet Electrical Engineering

Electrical Review

Electric Drives and Electromechanical Devices: Applications and Control, Second Edition, presents a unified approach to the design and application of modern drive system. It explores problems involved in assembling complete, modern electric drive systems involving mechanical, electrical, and electronic elements. This book

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provides a global overview of design, specification applications, important design information, and methodologies. This new edition has been restructured to present a seamless, logical discussion on a wide range of topical problems relating to the design and specification of the complete motor-drive system. It is organised to establish immediate solutions to specific application problem.

Subsidiary issues that have a considerable impact on the overall performance and reliability, including environmental protection and costs, energy efficiency, and cyber security, are also considered.

Presents a comprehensive consideration of electromechanical systems with insights into the complete drive system, including required sensors and mechanical components

Features in-depth discussion of control schemes, particularly focusing on practical operation Includes extensive references to modern application domains and real-world case studies, such as electric vehicles Considers the cyber aspects of drives, including networking and security

Advances in Battery Technologies for Electric Vehicles provides an in-depth look into the research being conducted on the development of more efficient

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batteries capable of long distance travel. The text contains an introductory section on the market for battery and hybrid electric vehicles, then thoroughly presents the latest on lithium-ion battery technology. Readers will find sections on battery pack design and management, a discussion of the infrastructure required for the creation of a battery powered transport network, and coverage of the issues involved with end-of-life management for these types of batteries.

Provides an in-depth look into new research on the development of more efficient, long distance travel batteries
Contains an introductory section on the market for battery and hybrid electric vehicles
Discusses battery pack design and management and the issues involved with end-of-life management for these types of batteries

Membrane Technologies for Biorefining highlights the best practices needed for the efficient and environmentally-compatible separation techniques that are fundamental to the conversion of biomass to fuels and chemicals for use as alternatives to petroleum refining.

Membrane technologies are increasingly of interest in biorefineries due to their modest energy consumption, low chemical

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requirements, and excellent separation efficiency. The book provides researchers in academia and industry with an authoritative overview of the different types of membranes and highlights the ways in which they can be applied in biorefineries for the production of chemicals and biofuels. Topics have been selected to highlight both the variety of raw materials treated in biorefineries and the range of biofuel and chemical end-products. Presents the first book to focus specifically on membrane technologies in biorefineries Provides a comprehensive overview of the different types of membranes and highlight ways in which they can be applied in biorefineries for the production of chemicals and biofuels Topics selected highlight both the variety of raw materials treated using membranes in biorefineries and the range of biofuel and chemical end-products

Technical Abstract Bulletin

Systems, Planning, Application and Cost Effectiveness

Hydrogen Production and Purification

Geothermal Power Generation

Advances in Ground-Source Heat Pump Systems

Energy Efficiency Strategies

Electricity transmission and distribution (T&D)

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networks carry electricity from generation sites to demand sites. With the increasing penetration of decentralised and renewable energy systems, in particular variable power sources such as wind turbines, and the rise in demand-side technologies, the importance of innovative products has never been greater. Eco-design approaches and standards in this field are aimed at improving the performance as well as the overall sustainability of T&D network equipment. This multidisciplinary reference provides coverage of developments and lessons-learned in the fields of eco-design of innovation from product-specific issues to system approaches, including case studies featuring problem-solving methodologies applicable to electricity transmission and distribution networks. Discusses key environmental issues and methodologies for eco-design, and applies this to development of equipment for electricity transmission and distribution. Provides analysis of using and assessing advanced equipment for wind energy systems. Includes reviews of the energy infrastructure for demand-side management in the US and Scandinavia.

Geothermal Power Generation: Developments and Innovation provides an update to the advanced energy technologies that are urgently required to meet the challenges of economic development, climate change mitigation, and energy security. As geothermal resources are considered renewable and

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can be used to generate baseload electricity while producing very low levels of greenhouse gas emissions, they can play a key role in future energy needs. This book, edited by a highly respected expert, provides a comprehensive overview of the major aspects of geothermal power production. The chapters, contributed by specialists in their respective areas, cover resource discovery, resource characterization, energy conversion systems, and design and economic considerations. The final section provides a range of fascinating case studies from across the world, ranging from Larderello to Indonesia. Users will find this to be an essential text for research and development professionals and engineers in the geothermal energy industry, as well as postgraduate researchers in academia who are working on geothermal energy. Provides readers with a comprehensive and systematic overview of geothermal power generation Presents an update to the advanced energy technologies that are urgently required to meet the challenges of economic development, climate change mitigation, and energy security Edited by a world authority in the field, with chapters contributed by experts in their particular areas Includes comprehensive case studies from across the world, ranging from Larderello to Indonesia

Safe and Secure Transport and Storage of Radioactive Materials reviews best practice and

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emerging techniques in this area. The transport of radioactive materials is an essential operation in the nuclear industry, without which the generation of nuclear power would not be possible. Radioactive materials also often need to be stored pending use, treatment, or disposal. Given the nature of radioactive materials, it is paramount that transport and storage methods are both safe and secure. A vital guide for managers and general managers in the nuclear power and transport industries, this book covers topics including package design, safety, security, mechanical performance, radiation protection and shielding, thermal performance, uranium ore, fresh fuel, uranium hexafluoride, MOX, plutonium, and more. Uniquely comprehensive and systematic coverage of the packaging, transport, and storage of radioactive materials Section devoted to spent nuclear fuels Expert team of authors and editors

Advances in Spatio-Temporal Analysis

Principles and Applications with Practical Perspectives

*Hydrogen Use, Safety and the Hydrogen Economy
Electric Drives and Electromechanical Systems
Applications and Control*

Each number is the catalogue of a specific school or college of the University.

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In March 2011 the Fukushima nuclear power plant (NPP) in Japan was hit by an earthquake and subsequent tsunami which resulted in the release of significant amounts of radioactive material. The incident led to the suspension of nuclear programmes by a number of countries. This book provides a definitive account of the accident. Outlines the main sequence of events of the 2011 Fukushima nuclear power plant accident, considers the responses of central and local government, and evaluates the response of the plant owner TEPCO. Describes and assesses the effectiveness of the evacuation process and subsequent decontamination of the site and local area. Offers recommendations for improving the safe design and operation of nuclear power plants and considers the future of the Fukushima plant and nuclear power generation in Japan.

Salinity gradient energy, also known as blue energy and osmotic energy, is the energy obtainable from the difference in salt concentration between two feed solutions, typically sea water and river water. It is a large-scale

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renewable resource that can be harvested and converted to electricity. Efficient extraction of this energy is not straightforward, however.

Sustainable Energy from Salinity Gradients provides a comprehensive review of resources, technologies and applications in this area of fast-growing interest. Key technologies covered include pressure retarded osmosis, reverse electrodialysis and accumulator mixing. Environmental and economic aspects are also considered, together with the possible synergies between desalination and salinity gradient energy technologies.

Sustainable Energy from Salinity Gradients is an essential text for R&D professionals in the energy & water industry interested in salinity gradient power and researchers in academia from post-graduate level upwards. For more than ten years the Editors have been sharing substantial research activities in the fields of renewable energy and desalination, successfully participating to a number of European Union research projects and contributing to the relevant scientific

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literature with more than 100 papers and 2 books on Desalination technologies and their coupling with Renewable Energy. They are intensely working in the field of Salinity Gradient Power, carrying out research with specific focus o.n open-loop and closed-loop reverse electrodialysis and pressure retarded osmosis. Covers applications of pressure retarded osmosis, reverse electrodialysis, and capacitive mixing for salinity gradient power in one convenient volume Presents the environmental aspects and economics of salinity gradient energy Explores possible synergies between desalination and salinity gradient energy Proceedings and Debates of the ... Congress