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Power Plant Engineering Larry Drbal 2012-12-06 This comprehensive volume provides a complete, authoritative, up-to-date reference for all aspects of power plant engineering. Coverage ranges from engineering economics to coal and limestone handling, from design processes to plant thermal heat balances. Both theory and practical applications are covered, giving engineers the information needed to plan, design, construct, upgrade, and operate power plants. Power Plant Engineering is the culmination of experience of hundreds of engineers from Black & Veatch, a leading firm in the field for more than 80 years. The authors review all major power generating technologies, giving particular emphasis to current approaches. Special features of the book include: * More than 1000 figures and lines drawings that illustrate all aspects of the subject. * Coverage of related components and systems in power plants such as turbine-generators, feedwater heaters, condenser, and cooling towers. * Definitions and analyses of the features of various plant systems. * Discussions of promising future technologies. Power Plant Engineering will be the standard reference in the professional engineer's library as the source of information on steam power plant generation. In addition, the clear presentation of the material will make this book suitable for use by students preparing to enter the field.

Power Engineering Akademii nauk SSSR. 1983

Emerging Trends in Electrical, Electronic and Communications Engineering Peter Fleming 2017-01-19 The book reports on advanced theories and methods in two related engineering fields: electrical and electronic engineering, and communications engineering and computing. It highlights areas of global and growing importance, such as renewable energy, power systems, mobile communications, security and the Internet of Things (IoT). The contributions cover a number of current research issues, including smart grids, photovoltaic systems, wireless power transfer, signal processing, 4G and 5G technologies, IoT applications, mobile cloud computing and many more. Based on the proceedings of the first International Conference on Emerging Trends in Electrical, Electronic and Communications Engineering (ELECTOM 2016), held in Voila Bagatelle, Mauritius from November 25 to 27, 2016, the book provides graduate students, researchers and professionals with a snapshot of the state-of-the-art and a source of new ideas for future research and collaborations.

Software-Defined Radio for Engineers Alexander M. Wyglinski 2018-04-30 Based on the popular Artech House classic, Digital Communication Systems Engineering with Software-Defined Radio, this book provides a practical approach to quickly learning the software-defined radio (SDR) concepts needed for work in the field. This up-to-date volume guides readers on how to quickly prototype wireless designs using SDR for real-world testing and experimentation. This book explores advanced wireless communication techniques such as OFDM, LTE, WLA, and hardware targeting. Readers will gain an understanding of the core concepts behind wireless hardware, such as the radio frequency front-end, analog-to-digital and digital-to-analog converters, as well as various processing technologies. Moreover, this volume includes chapters on timing estimation, matched filtering, frame synchronization message decoding, and source coding. The orthogonal frequency division multiplexing is explained and details about HDL code generation and deployment are provided. The book concludes with coverage of the WLAN toolbox with OFDM beacon reception and the LTE toolbox with downlink reception. Multiple case studies are provided throughout the book. Both MATLAB and Simulink source code are included to assist readers with their projects in the field.

Fluid Power Engineering M Rabie 2009-04-09 Develop high-performance hydraulic and pneumatic power systems Design, operate, and maintain fluid and pneumatic power equipment using the expert information contained in this authoritative volume. Fluid Power Engineering presents a comprehensive approach to hydraulic systems engineering with a solid grounding in hydrodynamic theory. The book explains how to create accurate mathematical models, select and assemble components, and integrate powerful servo valves and actuators. You will also learn how to build low-loss transmission lines, analyze system performance, and optimize efficiency. Work with hydraulic fluids, pumps, gauges, and cylinders Design transmission lines using the lumped parameter model Minimize power losses due to friction, leakage, and line resistance Construct and operate accumulators, pressure switches, and filters Develop mathematical models of electrohydraulic servosystems Convert hydraulic power into mechanical energy using actuators Precisely control load displacement using HSAs and control valves Apply fluid systems techniques to pneumatic power systems

Power System Engineering R. K. Rajput 2006

Fundamentals of Electrical Engineering Leonard S. Bobrow 1996 Divided into four parts: circuits, electronics, digital systems, and electromagnetics, this text provides an understanding of the fundamental principles on which modern electrical engineering is based. It is suitable for a variety of electrical engineering courses, and can also be used as a text for an introduction to electrical engineering.

Electrical Engineering: Know It All Clive Maxfield 2011-04-19 The Newnes Know It All Series takes the best of what our authors have written to create hard-working desk references that will be an engineer's first port of call for key information, design techniques and rules of thumb. Guaranteed not to gather dust on a shelf! Electrical engineers need to master a wide area of topics to excel. The Electrical Engineering Know It All covers every angle including Real-World Signals and Systems, Electromagnetics, and Power systems. A 360-degree view from our best-selling authors Topics include digital, analog, and power electronics, and electric circuits The ultimate hard-working desk reference; all the essential information, techniques and tricks of the trade in one volume

Research Methodology Ranjit Kumar 2010-11-12 Written specifically for students with no previous experience of research and research methodology, the Third Edition of Research Methodology breaks the process of designing and doing a research project into eight manageable steps and provides plenty of examples throughout to link theory to the practice of doing research. The book contains straightforward, practical guidance on: - Formulating a research question - Ethical considerations - Carrying out a literature review - Choosing a research design - Selecting a sample - Collecting and analysing qualitative and quantitative data - Writing a research report The third edition has been revised and updated to include extended coverage of qualitative research methods in addition to the existing comprehensive coverage of quantitative methods. There are also brand new learning features such as reflective questions throughout the text to help students consolidate their knowledge. The book is essential reading for undergraduate and postgraduate students in the social sciences embarking on

qualitative or quantitative research projects.

Power System Operation and Control Sivanagaraju, S. Power System Operation and Control is comprehensively designed for undergraduate and postgraduate courses in electrical engineering. This book aims to meet the requirements of electrical engineering students and is useful for practicing engineers.

Microgrids Sanjeevikumar Padmanaban 2020-11-23 Microgrids offers a complete discussion and details about microgrids and their applications, including modeling of AC/DC and hybrid grids in a tied mode with simulation for the solar systems, wind turbines, biomass and fuel cells, and deployment issues. The data communications and control mechanism implementations are analyzed for proper coordination of the AC/DC microgrid. The various real-time applications and future development of the microgrid are also discussed in this book, with MATLAB®-based simulations and results. This book: Discusses the fundamentals of microgrids, the components of microgrids, the modeling of renewable energy sources, and the implementation of microgrids. Explores AC and DC microgrid modeling with real-time examples. Examines the effective extraction of energy from renewable energy sources. Covers analysis of data communications and control-mechanism implementations. Includes HOMER/MATLAB®-based simulations and results on microgrids. This book would be a welcome addition to the libraries of researchers, senior undergraduate students, and graduate students in power and electrical engineering, especially those working with smart and microgrids.

Hughes Electrical Technology Edward Hughes 1995-01-01 Covering the fundamentals of electrical technology and using these to introduce the application of electrical and electronic systems, this text had been updated to include recent developments in technology. It avoids unnecessary mathematics and features improved teaching aids, including: worked examples; updated and graded review questions; colour diagrams and chapter summaries. It is designed for use by students on NC, HNC and HND courses in electrical and electronic engineering.

Power System BR Gupta 2008 It is gratifying to note that the book has very widespread acceptance by faculty and students throughout the country. In the revised edition some new topics have been added. Additional solved examples have also been added. The data of transmission system in India has been updated.

Electric Power Systems Alexandra von Meier 2006-06-30 A clear explanation of the technology for producing and delivering electricity Electric Power Systems explains and illustrates how the electric grid works in a clear, straightforward style that makes highly technical material accessible. It begins with a thorough discussion of the underlying physical concepts of electricity, circuits, and complex power that serves as a foundation for more advanced material. Readers are then introduced to the main components of electric power systems, including generators, motors and other appliances, and transmission and distribution equipment such as power lines, transformers, and circuit breakers. The author explains how a whole power system is managed and coordinated, analyzed mathematically, and kept stable and reliable. Recognizing the economic and environmental implications of electric energy production and public concern over disruptions of service, this book exposes the challenges of producing and delivering electricity to help inform public policy decisions. Its discussions of complex concepts such as reactive power balance, load flow, and stability analysis, for example, offer deep insight into the complexity of electric grid operation and demonstrate how and why physics constrains economics and politics. Although this survival guide includes mathematical equations and formulas, it discusses their meaning in plain English and does not assume any prior familiarity with particular notations or technical jargon. Additional features include: * A glossary of symbols, units, abbreviations, and acronyms * Illustrations that help readers visualize processes and better understand complex concepts * Detailed analysis of a case study, including a Web reference to the case, enabling readers to test the consequences of manipulating various parameters With its clear discussion of how electric grids work, Electric Power Systems is appropriate for a broad readership of professionals, undergraduate and graduate students, government agency managers, environmental advocates, and consumers.

Electric Power Substations Engineering John D. McDonald 2016-04-19 Combining select chapters from Grigsby's standard-setting The Electric Power Engineering Handbook with several chapters not found in the original work, Electric Power Substations Engineering became widely popular for its comprehensive, tutorial-style treatment of the theory, design, analysis, operation, and protection of power substations. For its

Power Plant Engineering A. K. Raja 2006 This Text-Cum-Reference Book Has Been Written To Meet The Manifold Requirement And Achievement Of The Students And Researchers. The Objective Of This Book Is To Discuss, Analyses And Design The Various Power Plant Systems Serving The Society At Present And Will Serve In Coming Decades India In Particular And The World In General. The Issues Related To Energy With Stress And Environment Up To Some Extent And Finally Find Ways To Implement The Outcome. Salient Features# Utilization Of Non-Conventional Energy Resources# Includes Green House Effect# Gives Latest Information S In Power Plant Engineering# Include Large Number Of Problems Of Both Indian And Foreign Universities# Rich Contents, Lucid Manner

Microgrid Technology and Engineering Application Fusheng Li 2015-08-27 This book is based on the authors' research and microgrid projects since 2009, and is the most up-to-date resource on the development of microgrid technologies. In addition to basic facility and network design concepts, it covers related subjects including power supply programming and energy optimization, which means it can serve as a single volume reference to the complete microgrid system implementation. Provides a systematic introduction to the basic concepts, key technologies, and practical design methods of microgrids Covers the theoretical design and implementation of microgrid facilities, including practical operational issues, monitoring and control. The balance of theoretical and applied content will be of real value to engineers who are specifying and design systems in regions with limited experience of microgrid systems Includes real-life examples and projects to help implement the content effectively

Basic Electrical Engineering (Be 104) Mittle

Industrial Fluid Power Charles S. Hedges 1982

Rapid Prototyping C K Chua 2003-03-03 Latest Edition: 3D Printing and Additive Manufacturing: Principles and Applications (with Companion Media Pack). Fourth edition of Rapid Prototyping. Rapid Prototyping (RP) has revolutionized the landscape of how prototypes and products are made and small batch manufacturing carried out. This book gives a comprehensive coverage of RP and rapid tooling processes, data formats and applications. A CD-ROM, included in the book, presents RP and its principles in an interactive way to augment the learning experience.

Special features: Most comprehensive coverage of more than 30 RP Systems Understanding of RP through applications In-depth revelation of the basic principles behind major RP techniques Discussion of important issues such as STL file problems of RP parts Interactive CD-ROM to demonstrate the major RP techniques RP company background information and contact addresses

Smart Grid James A. Momoh 2012-03-07 The book is written as primer hand book for addressing the fundamentals of smart grid. It provides the working definition the functions, the design criteria and the tools and techniques and technology needed for building smart grid. The book is needed to provide a working guideline in the design, analysis and development of Smart Grid. It incorporates all the essential factors of Smart Grid appropriate for enabling the performance and capability of the power system. There are no comparable books which provide information on the "how to" of the design and analysis. The book provides a fundamental discussion on the motivation for the smart grid development, the working definition and the tools for analysis and development of the Smart Grid. Standards and requirements needed for designing new devices, systems and products are discussed; the automation and computational techniques need to ensure that the Smart Grid guarantees adaptability, foresight alongside capability of handling new systems and components are discussed. The interoperability of different renewable energy sources are included to ensure that there will be minimum changes in the existing legacy system. Overall the book evaluates different options of computational intelligence, communication technology and decision support system to design various aspects of Smart Grid. Strategies for demonstration of Smart Grid schemes on selected problems are presented.

A Textbook of Fluid Mechanics R. K. Rajput 2008 This treatise on fluid Mechanics ,contains comprehensive treatment of the subject matter in simple, lucid and direct language and envelopes a large number of solved problems properly graded, including typical examples from examination point of view. The book comprise 16 chapters. All chapters of the book are saturated with much needed text supported by simple and self-explanatory figures and a large number of worked examples including Typical Examples (for competitive examinations). At the end of each chapter Highlights, objective Type Questions, Theoretical Questions and Unsolved Examples have been added to make the book a comprehensive and a complete unit in all respects.

Power Plant Engineering P. K. Nag 2002

Electronic Devices and Circuits G. J. Pridham 2016-07-04 Electronic Devices and Circuits, Volume 1 presents the extensive development of semiconductor devices. This book examines some of the electronic instruments in general use, with emphasis on the cathode ray oscilloscope as the basic instrument for the design and investigation of any circuit. Comprised of nine chapters, this volume begins with an overview of operation of inductive, resistive, and capacitive elements in d.c. and a.c. circuits. This text then explains the construction and limitations of the passive components used in electronic circuits. Other chapters consider the relation of charged particles to an atomic structure of elements and their movement under the action of magnetic and electric fields. This book discusses as well the characteristics and construction of some of the diodes in common use. The final chapter deals with the use of two and three element devices in rectifying circuits. This book is a valuable resource for aspiring professional and technician engineers in the electronics industry.

A Textbook of Machine Design RS Khurmi | JK Gupta 2005 The present multicolor edition has been thoroughly revised and brought up-to-date. Multicolor pictures have been added to enhance the content value and to give the students an idea of what he will be dealing in reality, and to bridge the gap between theory and practice. This book has already been include in the 'suggested reading' for the A.M.I.E.(India) examinations.

Design of Machine Elements V. B. Bhandari 2007 Revised extensively, the new edition of this text conforms to the syllabi of all Indian Universities in India. This text strictly focuses on the undergraduate syllabus of Design of Machine Elements I and II , offered over two semesters.

The Civil Engineering Handbook W.F. Chen 2002-08-29 First published in 1995, the award-winning Civil Engineering Handbook soon became known as the field's definitive reference. To retain its standing as a complete, authoritative resource, the editors have incorporated into this edition the many changes in techniques, tools, and materials that over the last seven years have found their way into civil engineering research and practice. The Civil Engineering Handbook, Second Edition is more comprehensive than ever. You'll find new, updated, and expanded coverage in every section. In fact, more than 1/3 of the handbook is new or substantially revised. In particular you'll find increased focus on computing reflecting the rapid advances in computer technology that has revolutionized many aspects of civil engineering. You'll use it as a survey of the field, you'll use it to explore a particular subject, but most of all you'll use The Civil Engineering Handbook to answer the problems, questions, and conundrums you encounter in practice.

Easy Electronics Charles Platt 2017-11-21 This is the simplest, quickest, least technical, most affordable introduction to basic electronics. No tools are necessary--not even a screwdriver. Easy Electronics should satisfy anyone who has felt frustrated by entry-level books that are not as clear and simple as they are supposed to be. Brilliantly clear graphics will take you step by step through 12 basic projects, none of which should take more than half an hour. Using alligator clips to connect components, you see and hear immediate results. The hands-on approach is fun and intriguing, especially for family members exploring the projects together. The 12 experiments will introduce you to switches, resistors, capacitors, transistors, phototransistors, LEDs, audio transducers, and a silicon chip. You'll even learn how to read schematics by comparing them with the circuits that you build. No prior knowledge is required, and no math is involved. You learn by seeing, hearing, and touching. By the end of Experiment 12, you may be eager to move on to a more detailed book. Easy Electronics will function perfectly as a prequel to the same author's bestseller, Make: Electronics. All the components listed in the book are inexpensive and readily available from online sellers. A very affordable kit has been developed in conjunction with the book to eliminate the chore of shopping for separate parts. A QR code inside the book will take you to the vendor's web site. Concepts include: Transistor as a switch or an amplifier Phototransistor to function as an alarm Capacitor to store and release electricity Transducer to create sounds from a timer Resistor codes A miniature light bulb to display voltage The inner workings of a switch Using batteries and resistors in series and parallel Creating sounds by the pressure of your finger Making a matchbox that beeps when you touch it And more. Grab your copy and start experimenting!

Practical Troubleshooting of Electrical Equipment and Control Circuits Mark Brown 2004-10-21 There is a large gap between what you learn in college and the practical knowhow demanded in the working environment, running and maintaining electrical equipment and control circuits. Practical Troubleshooting of Electrical Equipment and Control Circuits focuses on the hands-on knowledge and rules-of-thumb that will help engineers and employers by increasing knowledge and skills, leading to improved equipment productivity and reduced maintenance costs. Practical Troubleshooting of Electrical Equipment and Control Circuits will help engineers and technicians to identify, prevent and fix common electrical equipment and control circuits. The emphasis is on practical issues that go beyond typical electrical principles, providing a tool-kit of skills in solving electrical

problems, ranging from control circuits to motors and variable speed drives. The examples in the book are designed to be applicable to any facility. Discover the practical knowhow and rules-of-thumb they don't teach you in the classroom

Diagnose electrical problems 'right first time' Reduce downtime

Probability and Random Processes for Electrical Engineering Alberto Leon-Garcia 1994-09

Control System Design Bernard Friedland 2012-03-08 Introduction to state-space methods covers feedback control; state-space representation of dynamic systems and dynamics of linear systems; frequency-domain analysis; controllability and observability; shaping the dynamic response; more. 1986 edition.

The Electrical Engineering Handbook - Six Volume Set Richard C. Dorf 2018-12-14 In two editions spanning more than a decade, The Electrical Engineering Handbook stands as the definitive reference to the multidisciplinary field of electrical engineering. Our knowledge continues to grow, and so does the Handbook. For the third edition, it has grown into a set of six books carefully focused on specialized areas or fields of study. Each one represents a concise yet definitive collection of key concepts, models, and equations in its respective domain, thoughtfully gathered for convenient access. Combined, they constitute the most comprehensive, authoritative resource available. Circuits, Signals, and Speech and Image Processing presents all of the basic information related to electric circuits and components, analysis of circuits, the use of the Laplace transform, as well as signal, speech, and image processing using filters and algorithms. It also examines emerging areas such as text to speech synthesis, real-time processing, and embedded signal processing. Electronics, Power Electronics, Optoelectronics, Microwaves, Electromagnetics, and Radar delves into the fields of electronics, integrated circuits, power electronics, optoelectronics, electromagnetics, light waves, and radar, supplying all of the basic information required for a deep understanding of each area. It also devotes a section to electrical effects and devices and explores the emerging fields of microlithography and power electronics. Sensors, Nanoscience, Biomedical Engineering, and Instruments provides thorough coverage of sensors, materials and nanoscience, instruments and measurements, and biomedical systems and devices, including all of the basic information required to thoroughly understand each area. It explores the emerging fields of sensors, nanotechnologies, and biological effects. Broadcasting and Optical Communication Technology explores communications, information theory, and devices, covering all of the basic information needed for a thorough understanding of these areas. It also examines the emerging areas of adaptive estimation and optical communication. Computers, Software Engineering, and Digital Devices examines digital and logical devices, displays, testing, software, and computers, presenting the fundamental concepts needed to ensure a thorough understanding of each field. It treats the emerging fields of programmable logic, hardware description languages, and parallel computing in detail. Systems, Controls, Embedded Systems, Energy, and Machines explores in detail the fields of energy devices, machines, and systems as well as control systems. It provides all of the fundamental concepts needed for thorough, in-depth understanding of each area and devotes special attention to the emerging area of embedded systems. Encompassing the work of the world's foremost experts in their respective specialties, The Electrical Engineering Handbook, Third Edition remains the most convenient, reliable source of information available. This edition features the latest developments, the broadest scope of coverage, and new material on nanotechnologies, fuel cells, embedded systems, and biometrics. The engineering community has relied on the Handbook for more than twelve years, and it will continue to be a platform to launch the next wave of advancements. The Handbook's latest incarnation features a protective slipcase, which helps you stay organized without overwhelming your bookshelf. It is an attractive addition to any collection, and will help keep each volume of the Handbook as fresh as your latest research.

Irrigation and Water Resources Engineering G L Asawa 2006-01-01 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.

Electromagnetics, Volume 1 (BETA) Steven W. Ellingson 2018-01-03 Electromagnetics (CC BY-SA 4.0) is an open textbook intended to serve as a primary textbook for a one-semester first course in undergraduate engineering electromagnetics, and includes: electric and magnetic fields; electromagnetic properties of materials; electromagnetic waves; and devices that operate according to associated electromagnetic principles including resistors, capacitors, inductors, transformers, generators, and transmission lines. This book employs the "transmission lines first" approach, in which transmission lines are introduced using a lumped-element equivalent circuit model for a differential length of transmission line, leading to one-dimensional wave equations for voltage and current. This book is intended for electrical engineering students in the third year of a bachelor of science degree program. A free electronic version of this book is available at: <https://doi.org/10.7294/W4WQ01ZM>

The Post Office Electrical Engineers' Journal 1963

Basic Electrical Engineering Chakrabarti 2009

Power System Protection in Smart Grid Environment Ramesh Bansal 2019-01-15 With distributed generation interconnection power flow becoming bidirectional, culminating in network problems, smart grids aid in electricity generation, transmission, substations, distribution and consumption to achieve a system that is clean, safe (protected), secure, reliable, efficient, and sustainable. This book illustrates fault analysis, fuses, circuit breakers, instrument transformers, relay technology, transmission lines protection setting using DIGSILENT Power Factory. Intended audience is senior undergraduate and graduate students, and researchers in power systems, transmission and distribution, protection system broadly under electrical engineering.

Smart Grid Janaka B. Ekanayake 2012-02-23 Electric power systems worldwide face radical transformation with the need to decarbonise electricity supply, replace ageing assets and harness new information and communication technologies (ICT).

The Smart Grid uses advanced ICT to control next generation power systems reliably and efficiently. This authoritative guide demonstrates the importance of the Smart Grid and shows how ICT will extend beyond transmission voltages to distribution networks and customer-level operation through Smart Meters and Smart Homes. Smart Grid Technology and Applications: Clearly unravels the evolving Smart Grid concept with extensive illustrations and practical examples. Describes the spectrum of key enabling technologies required for the realisation of the Smart Grid with worked examples to illustrate the applications. Enables readers to engage with the immediate development of the power system and take part in the debate over the future Smart Grid. Introduces the constituent topics from first principles, assuming only a basic knowledge of mathematics, circuits and power systems. Brings together the expertise of a highly experienced and international author team from the UK, Sri Lanka, China and Japan. Electrical, electronics and computer engineering researchers, practitioners and consultants working in interdisciplinary Smart Grid RD&D will significantly enhance their knowledge through this reference. The tutorial style will greatly benefit final year undergraduate and master's students as the curriculum increasingly focuses on the breadth of technologies that contribute to Smart Grid realisation.

Power Generation Technologies Paul Breeze 2005-02-04 This book makes intelligible the wide range of electricity generating technologies available today, as well as some closely allied technologies such as energy storage. The book opens by setting the many power generation technologies in the context of global energy consumption, the development of the electricity generation industry and the

economics involved in this sector. A series of chapters are each devoted to assessing the environmental and economic impact of a single technology, including conventional technologies, nuclear and renewable (such as solar, wind and hydropower). The technologies are presented in an easily digestible form. Different power generation technologies have different greenhouse gas emissions and the link between greenhouse gases and global warming is a highly topical environmental and political issue. With developed nations worldwide looking to reduce their emissions of carbon dioxide, it is becoming increasingly important to explore the effectiveness of a mix of energy generation technologies. Power Generation Technologies gives a clear, unbiased review and comparison of the different types of power generation technologies available. In the light of the Kyoto protocol and OSPAR updates, Power Generation Technologies will provide an invaluable reference text for power generation planners, facility managers, consultants, policy makers and economists, as well as students and lecturers of related Engineering courses. · Provides a unique comparison of a wide range of power generation technologies - conventional, nuclear and renewable · Describes the workings and environmental impact of each technology · Evaluates the economic viability of each different power generation system

Fundamentals of Wireless Communication David Tse 2005-05-26 This textbook takes a unified view of the fundamentals of wireless communication and explains cutting-edge concepts in a simple and intuitive way. An abundant supply of exercises make it ideal for graduate courses in electrical and computer engineering and it will also be of great interest to practising engineers.