

## Electrical Transformers And Rotating Machines

Discusses the application of mathematical and engineering tools for modeling, simulation and control oriented for energy systems, power electronics and renewable energy This book builds on the background knowledge of electrical circuits, control of dc/dc converters and inverters, energy conversion and power electronics. The book shows readers how to apply computational methods for multi-domain simulation of energy systems and power electronics engineering problems. Each chapter has a brief introduction on the theoretical background, a description of the problems to be solved, and objectives to be achieved. Block diagrams, electrical circuits, mathematical analysis or computer code are covered. Each chapter concludes with discussions on what should be learned, suggestions for further studies and even some experimental work. Discusses the mathematical formulation of system equations for energy systems and power electronics aiming state-space and circuit oriented simulations Studies the interactions between MATLAB and Simulink models and functions with real-world implementation using microprocessors and microcontrollers Presents numerical integration techniques, transfer-function modeling, harmonic analysis and power quality performance assessment Examines existing software such as, MATLAB/Simulink, Power Systems Toolbox and PSIM to simulate power electronic circuits including the use of renewable energy sources such as wind and solar sources The simulation files are available for readers who register with the Google Group: [power-electronics-interfacing-energy-conversion-systems@googlegroups.com](mailto:power-electronics-interfacing-energy-conversion-systems@googlegroups.com). After your registration you will receive information in how to access the simulation files, the Google Group can also be used to communicate with other registered readers of this book.

This book provides the electrical design engineer with an insight into the properties and applications of electrical steels which are used in transformers and rotating machines. An acknowledged international expert in this field, Professor Beckley describes the principles controlling the action of electrical steels, including rotational loss and the influence of compressional stresses in transformers and rotating machines. The coverage of this book includes: manufacturing methods and applications, machine structuring and operation, cost versus quality issues, and physical properties including the magnetic response of composites, amorphous and microcrystalline materials.

This is a single-volume book on 'electrical machines' that teaches the subject precisely and yet with amazing clarity. The extent has been kept in control so that the entire subject can be covered by students within the limited time of the semesters. Thus, they will not have to consult multiple books anymore. The discussions of concepts include the modern trends used in industry, like efficient transformers, efficient induction motors, DC drives, and the problems related to them.

This book fills the need for an up-to-date source of information on how to connect, operate, adjust, and take performance data on the entire field of electric machinery. KEY TOPICS: /U It enables readers to recognize, understand, analyze, specify, connect, control and effectively apply the various existing types of electric motors and generators.

Dynamics of Rotating Machines

THEORY AND PRACTICE

Electromechanical Machinery Theory and Performance

Electrical Machines and Drives

Electromagnetic Transients in Transformer and Rotating Machine Windings

Your students will be able to install, troubleshoot, and test electrical motors like the pros! UNDERSTANDING MOTOR CONTROLS, 2ND Edition uses a real-world systems approach to learning motor control devices. Starting with basic control circuits and components, this covers all must-know applications and procedures to ensure reader success in the more complex topics. From development and installation to testing and troubleshooting, UNDERSTANDING MOTOR CONTROLS, 2ND Edition prepares future industrial electricians with a solid foundation in basic control circuits, sensing devices, solid-state controls, variable speed drives, programmable logic controllers (PLCs), and more. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version. Reflecting new technologies and the latest practices in the field, ELECTRICAL TRANSFORMERS AND ROTATING MACHINES, 3E combines a current, comprehensive explanation of theory with practical applications of electrical machines. The text begins with a study of magnetism and magnetic induction, single-phase isolation transformers, current transformers, and autotransformers. A unit on three-phase power covers basic connections and calculations before proceeding into transformers. Throughout the text, practical experiments enable readers to reinforce theory with hands-on application. The Third Edition also includes an all-new Instructor Resource CD with PowerPoint Image Library and ExamView™ test bank generator. With its unique combination of transformers and motors, Electrical Transformers and Rotating Machines, 3e is an excellent resource for electrical students and practitioners alike. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The two major broad applications of electrical energy are information processing and energy processing. Hence, it is no wonder that electrical machines have occupied a large and revered space in the field of electrical engineering. Such an important topic requires a careful approach and Charles A. Gross' Electric Machines offers the most balanced, application-oriented, and modern perspective on electromagnetic machines available. Written in a style that is both accessible and authoritative, this book explores all aspects of electromagnetic-mechanical (EM) machines. Rather than viewing the EM machine in isolation, the author treats the machine as part of an integrated system of source, controller, motor, and load. The discussion progresses systematically through basic machine physics and principles of operation to real-world applications and relevant control issues for each type of machine presented. Coverage ranges from DC, induction, and synchronous machines to specialized machines such as transformers, translational machines, and microelectromechanical systems (MEMS). Stimulating example applications include electric vehicles, wind energy, and vertical transportation. Numerous example problems illustrate and reinforce the concepts discussed. Along with appendices filled with unit conversions and background material, Electric Machines is a succinct, in-

depth, and complete guide to understanding electric machines for novel applications.

Very Good, No Highlights or Markup, all pages are intact.

Electrical Transformers and Rotating Machines

Rotating Electrical Machines and Power Systems

Fluid Power Basics

Semiconductors: From Book to Breadboard

Power Conversion of Renewable Energy Systems

A user-friendly, hands-on approach to understanding solid-state devices, **SEMICONDUCTORS FROM BOOK TO BREADBOARD:**

**COMPLETE TEXTBOOK/LAB MANUAL**, 1ST Edition centers on the concepts and skills entry-level electronics technicians need to be successful. Delivered in a common-sense, lesson-to-lab format, the book uses simple terms and multiple learning reinforcements--like chapter reviews and online resources--to identify, test, and troubleshoot discrete and integrated semiconductor devices, such as diodes, transistors, and op amps. Twenty-two classroom-tested labs show users how to build, observe, and analyze the operation of rectifiers, power supplies, amplifiers, oscillators, and electronic control circuits, and help build a working knowledge of the material. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Offers key concepts of electrical machines embedded with solved examples, review questions, illustrations and open book questions.

"This book explores relevant theoretical frameworks, the latest empirical research findings, and industry-approved techniques in this field of electromagnetic transient phenomena"--Provided by publisher.

The second edition of this must-have reference covers power quality issues in four parts, including new discussions related to renewable energy systems. The first part of the book provides background on causes, effects, standards, and measurements of power quality and harmonics. Once the basics are established the authors move on to harmonic modeling of power systems, including components and apparatus (electric machines). The final part of the book is devoted to power quality mitigation approaches and devices, and the fourth part extends the analysis to power quality solutions for renewable energy systems. Throughout the book worked examples and exercises provide practical applications, and tables, charts, and graphs offer useful data for the modeling and analysis of power quality issues. Provides theoretical and practical insight into power quality problems of electric machines and systems 134 practical application (example) problems with solutions 125 problems at the end of chapters dealing with practical applications 924 references, mostly journal articles and conference papers, as well as national and international standards and guidelines

Understanding Motor Controls

Steady State and Performance with MATLAB®

Electrical Machines

**ELECTRICAL MACHINES**

Principles of Electric Machines and Power Electronics

This comprehensive, up-to-date introduction to Electrical Machines is designed to meet the needs of undergraduate electrical engineering students. It presents the essential principles of rotating machines and transformers. The emphasis is on the performance, though the book also introduces the salient features of electrical machine design. The book provides accessible, student-friendly coverage of dc machines, transformers, three-phase induction motor, single-phase induction motor, fractional horsepower motors, and synchronous machines. The clear writing style of the book enhanced by illustrative figures and simplified explanations of the fundamentals, makes it an ideal text for gaining a thorough understanding of the subject of electrical machines. Key Features Include: •Detailed coverage of the construction of electrical machines. •Lucid explanations of the principles of operation of electrical machines. •Methods of testing of electrical machines. •Performance calculations of electrical machines. •Wealth of diverse solved examples in each chapter to illustrate the application of theory to practical problems. •Salient features of design of electrical machines. •Objective type questions to help students prepare for competitive exams.

For over 15 years "Principles of Electrical Machines" is an ideal text for students who look to gain a current and clear understanding of the subject as all theories and concepts are explained with lucidity and clarity. Succinctly divided in 14 chapters, the book delves into important concepts of the subject which include Armature Reaction and Commutation, Single-phase Motors, Three-phase Induction motors, Synchronous Motors, Transformers and Alternators with the help of numerous figures and supporting chapter-end questions for retention.

Written for future electricians, ELECTRICAL TRANSFORMERS AND ROTATING MACHINES, 4e delivers comprehensive coverage reflecting real-world practice. It includes expansive coverage of magnetic measurements, exponential curves, control transformers, transformer nameplates, transformer sizing calculations, transformer installation, three-phase variable autotransformers, and more. The Fourth Edition is also completely up to date with changes from the NEC 2014 code. In addition, hands-on experiments are integrated throughout. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This exciting full-color book is the most comprehensive text book on DC/AC circuits and machines for electrical students on the market today. It provides complete coverage of concepts relating to electrical theory, as well as giving practical "how-to" examples of many of the common tasks that electricians must perform. The book has been organized so that all relevant information is located within a given chapter, making it easy to access and easy to teach topics in any order. With its visually appealing, easy-to-understand coverage of alternating current theory, and expanded coverage of topics such as transformers and electrical filters, Delmar's Standard Textbook of Electricity, 2E continues to set the standard in DC/AC circuits and machines.

J & P Transformer Book

Design of Rotating Electrical Machines

Electric Machines

Electric Power System Components

Delmar's Standard Textbook of Electricity

*This color brochure serves as a quick reference card that outlines the most common electrical principles and concepts. It serves as a great reference guide during and after a course or training session and can be used as a stand-alone learning guide or as a resource to accompany a book.*

*"This book enables engineers to understand the dynamics of rotating machines, starting from the most basic explanations and then proceeding to detailed numerical models and analysis"--Provided by publisher.*

*This book is devoted to students, PhD students, postgraduates of electrical engineering, researchers, and scientists dealing with the analysis, design, and optimization of electrical machine properties. The purpose is to present methods used for the analysis of transients and steady-state conditions. In three chapters the following methods are presented: (1) a method in which the parameters (resistances and inductances) are calculated on the basis of geometrical dimensions and material properties made in the design process, (2) a method of general theory of electrical machines, in which the transients are investigated in two perpendicular axes, and (3) FEM, which is a mathematical method applied to electrical machines to investigate many of their properties.*

*This book aims to offer a thorough study and reference textbook on electrical machines and drives. The basic idea is to start from the pure electromagnetic principles to derive the equivalent circuits and steady-state equations of the most common electrical machines (in the first parts). Although the book mainly concentrates on rotating field machines, the first two chapters are devoted to transformers and DC commutator machines. The chapter on transformers is included as an introduction to induction and synchronous machines, their electromagnetics and equivalent circuits. Chapters three and four offer an in-depth study of induction and synchronous machines, respectively. Starting from their electromagnetics, steady-state equations and equivalent circuits are derived, from which their basic properties can be deduced. The second part discusses the main power-electronic supplies for electrical drives, for example rectifiers, choppers, cycloconverters and inverters. Much attention is paid to PWM techniques for inverters and the resulting harmonic content in the output waveform. In the third part, electrical drives are discussed, combining the traditional (rotating field and DC commutator) electrical machines treated in the first part and the power electronics of part two. Field orientation of induction and synchronous machines are discussed in detail, as well as direct torque control. In addition, also switched reluctance machines and stepping motors are discussed in the last chapters. Finally, part 4 is devoted to the dynamics of traditional electrical machines. Also for the dynamics of induction and synchronous machine drives, the electromagnetics are used as the starting point to derive the dynamic models. Throughout part 4, much attention is paid to the derivation of analytical models. But, of course, the basic dynamic properties and probable causes of instability of induction and synchronous machine drives are discussed in detail as well, with the derived models for stability in the small as starting point. In addition to the study of the stability in the small, a chapter is devoted to large-scale dynamics as well (e.g. sudden short-circuit of synchronous machines). The textbook is used as the course text for the Bachelor's and Master's programme in electrical and mechanical engineering at the Faculty of*

*Engineering and Architecture of Ghent University. Parts 1 and 2 are taught in the basic course 'Fundamentals of Electric Drives' in the third bachelor. Part 3 is used for the course 'Controlled Electrical Drives' in the first master, while Part 4 is used in the specialised master on electrical energy.*

*Fundamentals of Electrical Drives*

*Rotating Electric Machinery and Transformer Technology*

*A Textbook Of Electrical Machines*

*Comparison of Principal Points of Standards for Electrical Machinery (Rotating Machines and Transformers)*

*Electric Machines Course: Electrical Circuits - Magnetic Circuits - Transformers and Rotating Machines*

*This course of electrical machines is intended for students of Electrical Engineering. This course presents in the first part the theoretical bases allowing the study and the analysis of electrical circuits as well as magnetic circuits. In the second part he explains in detail the operating principles of power transformers and DC machines.*

*Packed with real-world examples, vivid illustrations, and the latest developments from the field, ELECTRICAL STUDIES FOR TRADES, 5th EDITION is ideal for current and future service technicians in air conditioning and refrigeration, construction, and facilities management--and anyone else who needs a practical knowledge of electricity. Extremely reader-friendly, the book begins with an overview of basic electricity concepts--rather than complex mathematical calculations. From here, you proceed directly to must-know information, including how to determine wire sizes and make a variety of common switch connections. Different types of electrical power panels are also examined in detail. Discussion of general wiring practices and circuit protectors, as well as an introduction to transformers and three-phase and single-phase motors, round out the comprehensive coverage. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.*

*In one complete volume, this essential reference presents an in-depth overview of the theoretical principles and techniques of electrical machine design. This timely new edition offers up-to-date theory and guidelines for the design of electrical machines, taking into account recent advances in permanent magnet machines as well as synchronous reluctance machines. New coverage includes: Brand new material on the ecological impact of the motors, covering the eco-design principles of rotating electrical machines An expanded section on the design of permanent magnet synchronous machines, now reporting on the design of tooth-coil, high-torque permanent magnet machines and their properties Large updates and new material on synchronous reluctance machines, air-gap inductance, losses in and resistivity of permanent magnets (PM), operating point of loaded PM circuit, PM machine design, and minimizing the losses in electrical machines> End-of-chapter exercises and new direct*

*design examples with methods and solutions to real design problems> A supplementary website hosts two machine design examples created with MATHCAD: rotor surface magnet permanent magnet machine and squirrel cage induction machine calculations. Also a MATLAB code for optimizing the design of an induction motor is provided Outlining a step-by-step sequence of machine design, this book enables electrical machine designers to design rotating electrical machines. With a thorough treatment of all existing and emerging technologies in the field, it is a useful manual for professionals working in the diagnosis of electrical machines and drives. A rigorous introduction to the theoretical principles and techniques makes the book invaluable to senior electrical engineering students, postgraduates, researchers and university lecturers involved in electrical drives technology and electromechanical energy conversion.*

*A comprehensive text, combining all important concepts and topics of Electrical Machines and featuring exhaustive simulation models based on MATLAB/Simulink Electrical Machine Fundamentals with Numerical Simulation using MATLAB/Simulink provides readers with a basic understanding of all key concepts related to electrical machines (including working principles, equivalent circuit, and analysis). It elaborates the fundamentals and offers numerical problems for students to work through. Uniquely, this text includes simulation models of every type of machine described in the book, enabling students to design and analyse machines on their own. Unlike other books on the subject, this book meets all the needs of students in electrical machine courses. It balances analytical treatment, physical explanation, and hands-on examples and models with a range of difficulty levels. The authors present complex ideas in simple, easy-to-understand language, allowing students in all engineering disciplines to build a solid foundation in the principles of electrical machines. This book: Includes clear elaboration of fundamental concepts in the area of electrical machines, using simple language for optimal and enhanced learning Provides wide coverage of topics, aligning with the electrical machines syllabi of most international universities Contains extensive numerical problems and offers MATLAB/Simulink simulation models for the covered machine types Describes MATLAB/Simulink modelling procedure and introduces the modelling environment to novices Covers magnetic circuits, transformers, rotating machines, DC machines, electric vehicle motors, multiphase machine concept, winding design and details, finite element analysis, and more Electrical Machine Fundamentals with Numerical Simulation using MATLAB/Simulink is a well-balanced textbook perfect for undergraduate students in all engineering majors. Additionally, its comprehensive treatment of electrical machines makes it suitable as a reference for researchers in the field.*

*Electric Machinery and Transformers  
Transformers and Rotating Machines*

*Electrical Course Notes*

*Comparison of principal points of standards for electrical machinery (Rotating machines and transformers)*

*A Text Book of Electrical Machines*

Power Conversion of Renewable Energy Systems presents an introduction to conventional energy conversion components and systems, as well as those related to renewable energy. This volume introduces systems first, and then in subsequent chapters describes the components of energy systems in detail. Readers will find examples of renewable and conventional energy and power systems, including energy conversion, variable-speed drives and power electronics, in addition to magnetic devices such as transformers and rotating machines. Applications of PSpice, MATLAB, and Mathematica are also included, along with solutions to over 100 application examples. Power Conversion of Renewable Energy Systems aims to instruct readers how to actively apply the theories discussed within. It would be an ideal volume for researchers, students and engineers working with energy systems and renewable energy.

Electromechanical Machinery Theory and Performance presents a detailed explanation of electromagnetic machines, giving specific focus on transformers and AC rotating machines that can be used in the preservation and transference of energy and power. This book is developed for students at both graduate and undergraduate level, and can be used by practicing engineers as well.

Electrical Transformers and Rotating Machines Cengage Learning

Matrix Analysis of Electrical Machinery, Second Edition is a 14-chapter edition that covers the systematic analysis of electrical machinery performance. This edition discusses the principles of various mathematical operations and their application to electrical machinery performance calculations. The introductory chapters deal with the matrix representation of algebraic equations and their application to static electrical networks. The following chapters describe the fundamentals of different transformers and rotating machines and present torque analysis in terms of the currents based on the principle of the conservation of energy. A chapter focuses on a number of linear transformations commonly used in machine analysis. This edition also describes the

performance of other electrical machineries, such as direct current, single-phase and polyphase commutator, and alternating current machines. The concluding chapters cover the analysis of small oscillations and other machine problems. This edition is intended for readers who have some knowledge of or are concurrently studying the physical nature of electrical machines.

Analysis of Electrical Machines

Electrical Steels for Rotating Machines

Power Quality in Power Systems and Electrical Machines

Electrical Machine Fundamentals with Numerical Simulation using MATLAB / SIMULINK

*This book covers a brief history of electricity, fundamentals of electrostatic and electromagnetic fields, torque generation, magnetic circuits and detailed performance analysis of transformers and rotating machines. It also discusses the concept of generalised machine which can emulate the dynamic and steady state performance of DC and AC machines. To serve the specific applications of drive systems in industries, many new types of motors are developed in the last few decades. A separate chapter on 'Special Machines' is included in this book so that the students should be made aware of these new developments. The book covers the syllabi of many universities in India for a course in Electrical Machines. Therefore, this book would serve the needs of the undergraduate students of Electrical Engineering.*

*There are good reasons why the subject of electric power engineering, after many years of neglect, is making a comeback in the undergraduate curriculum of many electrical engineering departments. The most obvious is the current public awareness of the "energy crisis. " More fundamental is the concern with social responsibility among college students in general and engineering students in particular. After all, electric power remains one of the cornerstones of our civilization, and the well-publicized problems of ecology, economy, safety, dependability and natural resources management pose ever-growing challenges to the best minds in the engineering community. Before an engineer can successfully involve himself in such problems, he must first be familiar with the main components of electric power systems. This text book will assist him in acquiring the necessary familiarity. The course for which this book is mainly intended can be taken by any student who has had some circuit analysis (using*

discrete elements, and including sinusoidal steady state) and elementary electromagnetic field theory. Most students taking the course will be in their junior or senior years. Once the course is completed, students may decide to go more deeply into the design and operation of these components and study them on a more advanced level, or they may direct their attention to the problems of the system itself, problems which are only hinted at briefly at various points herein.

*Electric Machinery Fundamentals* continues to be a best-selling machinery text due to its accessible, student-friendly coverage of the important topics in the field. Chapman's clear writing persists in being one of the top features of the book. Although not a book on MATLAB, the use of MATLAB has been enhanced in the fourth edition. Additionally, many new problems have been added and remaining ones modified. *Electric Machinery Fundamentals* is also accompanied by a website that provides solutions for instructors, as well as source code, MATLAB tools, and links to important sites for students.

For this revision of their bestselling junior- and senior-level text, Guru and Hiziroglu have incorporated eleven years of cutting-edge developments in the field since *Electric Machinery and Transformers* was first published. Completely re-written, the new Second Edition also incorporates suggestions from students and instructors who have used the First Edition, making it the best text available for junior- and senior-level courses in electric machines. The new edition features a wealth of new and improved problems and examples, designed to complement the authors' overall goal of encouraging intuitive reasoning rather than rote memorization of material. Chapter 3, which presents the conversion of energy, now includes: analysis of magnetically coupled coils, induced emf in a coil rotating in a uniform magnetic field, induced emf in a coil rotating in a time-varying magnetic field, and the concept of the revolving field. All problems and examples have been rigorously tested using Mathcad.

*Electrical Studies for Trades*

*Principles of Electrical Machines*

*Modeling Power Electronics and Interfacing Energy Conversion Systems*

*Matrix Analysis of Electrical Machinery*

*Fundamentals and Advanced Modelling*

Maintaining appropriate power systems and equipment expertise is necessary for a utility to support the reliability, availability, and quality of service goals demanded by energy consumers now and into the future. However, transformer talent is at a premium today, and all aspects of the power industry are

suffering a diminishing of the supply of knowledgeable and experienced engineers. Now in print for over 80 years since initial publication in 1925 by Johnson & Phillips Ltd, the J & P Transformer Book continues to withstand the test of time as a key body of reference material for students, teachers, and all whose careers are involved in the engineering processes associated with power delivery, and particularly with transformer design, manufacture, testing, procurement, application, operation, maintenance, condition assessment and life extension. Current experience and knowledge have been brought into this thirteenth edition with discussions on moisture equilibrium in the insulation system, vegetable based natural ester insulating fluids, industry concerns with corrosive sulphur in oil, geomagnetic induced current (GIC) impacts, transportation issues, new emphasis on measurement of load related noise, and enhanced treatment of dielectric testing (including Frequency Response Analysis), Dissolved Gas analysis (DGA) techniques and tools, vacuum LTCs, shunt and series reactors, and HVDC converter transformers. These changes in the thirteenth edition together with updates of IEC reference Standards documentation and inclusion for the first time of IEEE reference Standards, provide recognition that the transformer industry and market is truly global in scale. -- From the foreword by Donald J. Fallon Martin Heathcote is a consultant specializing in power transformers, primarily working for utilities. In this context he has established working relationships with transformer manufacturers on several continents. His background with Ferranti and the UK's Central Electricity Generating Board (CEGB) included transformer design and the management and maintenance of transformer-based systems. \* The definitive reference for all involved in designing, installing, monitoring and maintaining high-voltage systems using power transformers (electricity generation and distribution sector; large-scale industrial applications) \* The classic reference work on power transformers and their applications: first published in 1925, now brought fully up to date in this thirteenth edition \* A truly practical engineering approach to design, monitoring and maintenance of power transformers in electricity generation, substations, and industrial applications.

With its comprehensive coverage of the state of the art, this Second Edition introduces basic types of transformers and electric machines. Classifications and characterization—modeling and performance—of power electric transformers (single and multiphase), motors and generators, commercial machines (dc brush, induction dc excited synchronous, PM synchronous, reluctance synchronous) and some new ones (multiphase ac machines, switched reluctance machines) with great potential for industry with rotary or linear motion are all treated in the book. The book covers, in detail, circuit modeling characteristics and performance characteristics under steady state, testing techniques and preliminary electromagnetic-thermic dimensioning with lots of solved numerical examples and special cases to illustrate new electric machines with strong industrialization potential. All formulae used to characterize parameters and performance may be safely used in industry for preliminary designs and have been applied in the book through numerical solved examples of industrial interest. Numerous computer simulation programs in MATLAB® and Simulink® that illustrate performance characteristics present in the chapters are included and many be used as homework to facilitate a deeper understanding of fundamental issues. This book is intended for a first-semester course covering electric transformers, rotary and linear machines, steady-state modeling and performance computation, preliminary dimensioning, and testing standardized and innovative techniques. The textbook may be used by R&D engineers in industry as all machine parameters and characteristics are calculated by ready-to-use industrial design mathematical expressions.

The purpose of this book is to familiarize the reader with all aspects of electrical drives. It contains a comprehensive user-friendly introductory text.

Electric Machinery Fundamentals