
Nptel Electrical Machine Design

When somebody should go to the ebook stores, search launch by shop, shelf by shelf, it is truly problematic. This is why we offer the book compilations in this website. It will no question ease you to look guide **Nptel Electrical Machine Design** as you such as.

By searching the title, publisher, or authors of guide you in point of fact want, you can discover them rapidly. In the house, workplace, or perhaps in your method can be all best place within net connections. If you aspire to download and install the Nptel Electrical Machine Design, it is very easy then, past currently we extend the link to purchase and create bargains to download and install Nptel Electrical Machine Design thus simple!

Nptel Electrical Machine Design

Downloaded from ftp.wagmtv.com by
guest

ESTRADA POPE

Advanced Machining Processes John Wiley & Sons
Modeling and machining are two terms closely related. The benefits of the application of modeling on machining are well known. The advances in technology call for the use of more sophisticated machining methods for the production of high-end components. In turn, more complex, more suitable, and reliable modeling methods are required. This book pertains to machining and modeling, but focuses on the special aspects of both. Many researchers in academia and industry, who are looking for ways to refine their work, make it more detailed, increase their accuracy and reliability, or implement new features, will gain access to knowledge in this book that is very scarce to find elsewhere.

Electrical Machines-I Elsevier

Unlike any other source in the field, this valuable reference clearly examines key aspects of the finite element method (FEM) for electromagnetic analysis of low-frequency electrical devices. The authors examine phenomena such as nonlinearity, mechanical force, electrical circuit coupling, vibration, heat, and movement for applications in the elect

Control Systems Lulu.com

A presentation of the theory of brushless d.c. drives to help engineers appreciate the potential of such motors and apply them more widely, by taking into account developments in permanent-magnet materials, power semiconductors, electronic control and motor design.

Electromagnetic Modeling by Finite Element Methods Longman

For courses on digital design in an Electrical Engineering, Computer Engineering, or Computer Science department. Digital Design, fifth edition is a modern update of the classic authoritative text on digital design. This book teaches the basic concepts of digital design in a clear, accessible manner. The book

presents the basic tools for the design of digital circuits and provides procedures suitable for a variety of digital applications.

Modeling, Control and Diagnosis Springer

This book presents a detailed exploration of adaption and implementation, as well as a 360-degree view spectrum of blockchain technologies in real-world business applications. Blockchain is gaining momentum in all sectors. This book offers a collection of protocol standards, issues, security improvements, applicability, features, and types of cryptocurrency in processing and through 5G technology. The book covers the evolution of blockchain from fundamental theories to present forms. It offers diversified business applications with usable case studies and provides successful implementations in cloud/edge computing, smart city, and IoT. The book emphasizes the advances and cutting-edge technologies along with the different tools and platforms. The primary audience for this book includes industry experts, researchers, graduates and under graduates, practitioners, and business managers who are engaged in blockchain and IoT-related technologies.

Electric Powertrain Springer Science & Business Media

This book introduces a modern approach to embedded system design, presenting software design and hardware design in a unified manner. It covers trends and challenges, introduces the design and use of single-purpose processors ("hardware") and general-purpose processors ("software"), describes memories and buses, illustrates hardware/software tradeoffs using a digital camera example, and discusses advanced computation models, controls systems, chip technologies, and modern design tools. For courses found in EE, CS and other engineering departments.

Intelligent Mechatronic Systems CRC Press

Acting as a support resource for practitioners and professionals looking to advance their understanding of complex mechatronic systems, *Intelligent Mechatronic Systems* explains their design and recent developments from first principles to practical applications. Detailed descriptions of the mathematical models of complex mechatronic systems, developed from fundamental physical relationships, are built on to develop innovative solutions with particular emphasis on physical model-based control strategies. Following a concurrent engineering approach, supported by industrial case studies, and drawing on the practical experience of the authors, *Intelligent Mechatronic Systems* covers range of topic and includes: An explanation of a common graphical tool for integrated design and its uses from modeling and simulation to the control synthesis Introductions to key concepts such as different means of achieving fault tolerance, robust overwhelming control and force and impedance control Dedicated chapters for advanced topics such as multibody dynamics and micro-electromechanical systems, vehicle mechatronic systems, robot kinematics and dynamics, space robotics and intelligent transportation systems Detailed discussion of cooperative environments and reconfigurable systems *Intelligent Mechatronic Systems* provides control, electrical and mechanical engineers and researchers in industrial automation with a means to design practical, functional and safe intelligent systems.

Wheeled Mobile Robotics Prentice Hall

Wheeled Mobile Robotics: From Fundamentals Towards Autonomous Systems covers the main topics from the wide area

of mobile robotics, explaining all applied theory and application. The book gives the reader a good foundation, enabling them to continue to more advanced topics. Several examples are included for better understanding, many of them accompanied by short MATLAB® script code making it easy to reuse in practical work. The book includes several examples of discussed methods and projects for wheeled mobile robots and some advanced methods for their control and localization. It is an ideal resource for those seeking an understanding of robotics, mechanics, and control, and for engineers and researchers in industrial and other specialized research institutions in the field of wheeled mobile robotics. Beginners with basic math knowledge will benefit from the examples, and engineers with an understanding of basic system theory and control will find it easy to follow the more demanding fundamental parts and advanced methods explained. Offers comprehensive coverage of the essentials of the field that are suitable for both academics and practitioners Includes several examples of the application of algorithms in simulations and real laboratory projects Presents foundation in mobile robotics theory before continuing with more advanced topics Self-sufficient to beginner readers, covering all important topics in the mobile robotics field Contains specific topics on modeling, control, sensing, path planning, localization, design architectures, and multi-agent systems

Engineers Black Book KHANNA PUBLISHING HOUSE

The book provides a comprehensive coverage of different aspects of low power circuit synthesis at various levels of design hierarchy; starting from the layout level to the system level. For a seamless understanding of the subject, basics of MOS circuits has

been introduced at transistor, gate and circuit level; followed by various low-power design methodologies, such as supply voltage scaling, switched capacitance minimization techniques and leakage power minimization approaches. The content of this book will prove useful to students, researchers, as well as practicing engineers.

Switched Reluctance Motor Drives CRC Press

Transformer Engineering: Design, Technology, and Diagnostics, Second Edition helps you design better transformers, apply advanced numerical field computations more effectively, and tackle operational and maintenance issues. Building on the bestselling Transformer Engineering: Design and Practice, this greatly expanded second edition also emphasizes diagnostic aspects and transformer-system interactions. What's New in This Edition Three new chapters on electromagnetic fields in transformers, transformer-system interactions and modeling, and monitoring and diagnostics An extensively revised chapter on recent trends in transformer technology An extensively updated chapter on short-circuit strength, including failure mechanisms and safety factors A step-by-step procedure for designing a transformer Updates throughout, reflecting advances in the field A blend of theory and practice, this comprehensive book examines aspects of transformer engineering, from design to diagnostics. It thoroughly explains electromagnetic fields and the finite element method to help you solve practical problems related to transformers. Coverage includes important design challenges, such as eddy and stray loss evaluation and control, transient response, short-circuit withstand and strength, and insulation design. The authors also give pointers for further

research. Students and engineers starting their careers will appreciate the sample design of a typical power transformer. Presenting in-depth explanations, modern computational techniques, and emerging trends, this is a valuable reference for those working in the transformer industry, as well as for students and researchers. It offers guidance in optimizing and enhancing transformer design, manufacturing, and condition monitoring to meet the challenges of a highly competitive market.

Brushless Permanent-magnet and Reluctance Motor Drives CRC Press

Brushless permanent-magnet motors provide simple, low maintenance, and easily controlled mechanical power. Written by two leading experts on the subject, this book offers the most comprehensive guide to the design and performance of brushless permanent-magnetic motors ever written. Topics range from electrical and magnetic design to materials and control. Throughout, the authors stress both practical and theoretical aspects of the subject, and relate the material to modern software-based techniques for design and analysis. As new magnetic materials and digital power control techniques continue to widen the scope of the applicability of such motors, the need for an authoritative overview of the subject becomes ever more urgent. Design of Brushless Permanent-Magnet Motors fits the bill and will be read by students and researchers in electric and electronic engineering.

Energy Systems, Power Electronics and Drives for Hybrid, Electric and Fuel Cell Vehicles CRC Press

A valuable guide for new and experienced readers, featuring the complex and massive world of IoT and IoT-based solutions.

Proceedings of the International Conference NEW-2017

Conran Octopus

"With new examples and the incorporation of MATLAB problems, the fourth edition gives comprehensive coverage of topics not found in any other texts." (Midwest).

Alternating Current Machines CRC Press

Revised extensively and updated with several new topics, this book discusses the principles and applications of "Heat and Mass Transfer". It is written with extensive pedagogy, clear explanations and examples throughout to elucidate the concepts and facilitate problem solving.

Heat & Mass Transfer 2E CRC Press

This book allows students to learn fundamental concepts in linear circuit analysis using a well-developed methodology that has been carefully refined through classroom use. Applying his many years of teaching experience, the author focuses the reader's attention on basic circuit concepts and modern analysis methods. The text includes detailed coverage of basics of different terminologies used in electric circuits, mesh and node equations, network analysis and network theorems, signals and its properties, graph theory and its application in circuit analysis, analogous systems, Fourier and Laplace transforms and their applications in circuit theory. Wide coverage of evolution integral, two-port networks, passive and active filters, state variable formulation of network problems and network synthesis have been made. Transient response and frequency domain analysis of network systems has also been discussed. The hall-mark feature of this text is that it helps the reader to gain a sound understanding on the basics of circuit theory. CONTENTS: Basic

Circuit Elements and Waveforms Signals and Systems Mesh and Node Analysis Fourier Series Laplace Transform Applications of Laplace Transform Analogous Systems Graph Theory and Network Equation Network Theorems Resonance Attenuators Two-port Network Passive Filters Active Filter Fundamentals State Variable Analysis Network Functions Network Synthesis Feedback System Frequency Response Plots Discrete Systems.

With an Introduction to the Verilog HDL CRC Press

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

Electric machinery fundamentals: Fourth edition CRC Press

This book is written so that it serves as a text book for B.E./B.Tech degree students in general and for the institutions where AICTE model curriculum has been adopted. TOPICS COVERED IN THIS BOOK:- Magnetic field and Magnetic circuit Electromagnetic force and torque D.C. Machines D.C. Machines- Motoring and Generation SALIENT FEATURES:- Self-contained, self-explanatory and simple to follow text. Numerous worked out examples. Well Explained theory parts with illustrations. Exercises, objective type question with answers at the end of each chapter.

Low-Power VLSI Circuits and Systems Butterworth-Heinemann

This book takes a holistic approach to reliability engineering for electrical and electronic systems by looking at the failure mechanisms, testing methods, failure analysis, characterisation techniques and prediction models that can be used to increase reliability for a range of devices. The text describes the reliability behavior of electrical and electronic systems. It takes an empirical scientific approach to reliability engineering to facilitate a greater understanding of operating conditions, failure mechanisms and the need for testing for a more realistic characterisation. After introducing the fundamentals and background to reliability theory, the text moves on to describe the methods of reliability analysis and characterisation across a wide range of applications. Takes a holistic approach to reliability engineering Looks at the failure mechanisms, testing methods, failure analysis, characterisation techniques and prediction models that can be used to increase reliability Facilitates a greater understanding of operating conditions, failure mechanisms and the need for testing for a more realistic characterisation

A Unified Hardware/Software Introduction Springer

The switched reluctance machine (SRM) is the least expensive electrical machine to produce, yet one of the most reliable. As such, research has blossomed during the last decade, and the SRM and variable drive systems using SRMs are receiving considerable attention from industry. Because they require a power electronic converter and controller to function, however, successful realization of an SRM variable drive system demands an understanding of the converter and controller subsystems and

their integration with the machine. Switched Reluctance Motor Drives provides that understanding. It presents a unified view of the machine and its drive system from all of its system and subsystem aspects. With a careful balance of theory and implementation, the author develops the analysis and design of SRMs from first principles, introduces a wide variety of power converters available for driving the SRM, and systematically presents both low- and high-performance controllers. The book includes an in-depth study of acoustic noise and its minimization along with application examples that include comparisons between ac and dc drives and SRM drive. The result is the first book that provides a state-of-the-art knowledge of SRMs, power converters, and their use with both sensor-based and sensorless

controllers. Switched Reluctance Motor Drives enables both students and engineers to learn all aspects of SRM drive systems and appreciate the interdependence of the various subsystems in performance optimization.

Innovative Modeling Techniques Pearson Academic

The book deals with the fundamentals, theoretical bases, and design methodologies of conventional internal combustion engine (ICE) vehicles, electric vehicles (EVs), hybrid electric vehicles (HEVs), and fuel cell vehicles (FCVs). The design methodology is described in mathematical terms, step-by-step, and the topics are approached from the overall drive train system, not just individual components. Furthermore, in explaining the design methodology of each drive train, design examples are presented with simulation results.