

ELECTRICAL

MACHINE ANALYSIS

USING FINITE ELEMENTS



NICOLA BIANCHI



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Title Electrical Machine Analysis Using Finite Elements

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Electrical Machine Analysis Using Finite Elements Nicola Bianchi,2017-12-19 From the fan motor in your PC to precision control of aircraft electrical machines of all sizes varieties and levels of complexity permeate our world Some are very simple while others require exacting and application specific design Electrical Machine Analysis Using Finite Elements provides the tools necessary for the analysis and design of any type of electrical machine by integrating mathematical numerical techniques with analytical and design methodologies Building successively from simple to complex analyses this book leads you step by step through the procedures and illustrates their implementation with examples of both traditional and innovative machines Although the examples are of specific devices they demonstrate how the procedures apply to any type of electrical machine introducing a preliminary theory followed by various considerations for the unique circumstance The author presents the mathematical background underlying the analysis but emphasizes application of the techniques common strategies and obtained results He also supplies codes for simple algorithms and reveals analytical methodologies that universally apply to any software program With step by step coverage of the fundamentals and common procedures Electrical Machine Analysis Using Finite Elements offers a superior analytical framework that allows you to adapt to any electrical machine to any software platform and to any specific requirements that you may encounter

Electrical Machine Analysis Using Finite Elements Nicola Bianchi,2005 From the fan motor in your PC to precision control of aircraft electrical machines of all sizes varieties and levels of complexity permeate our world Some are very simple while others require exacting and application specific design Electrical Machine Analysis Using Finite Elements provides the tools necessary for the analysis and design of any type of electrical machine by integrating mathematical numerical techniques with analytical and design methodologies Building successively from simple to complex analyses this book leads you step by step through the procedures and illustrates their implementation with examples of both traditional and innovative machines Although the examples are of specific devices they demonstrate how the procedures apply to any type of electrical machine introducing a preliminary theory followed by various considerations for the unique circumstance The author presents the mathematical background underlying the analysis but emphasizes application of the techniques common strategies and obtained results He also supplies codes for simple algorithms and reveals analytical methodologies that universally apply to any software program With step by step coverage of the fundamentals and common procedures Electrical Machine Analysis Using Finite Elements offers a superior analytical framework that allows you to adapt to any electrical machine to any software platform and to any specific requirements that you may encounter

Finite Element Analysis of Electrical Machines Sheppard Salon,2012-09-30 In Finite Element Analysis of Electrical Machines the author covers two dimensional analysis emphasizing the use of finite elements to perform the most common calculations required of machine designers and analysts The book explains what is inside a finite element program and how the finite element method can be used to

determine the behavior of electrical machines The material is tutorial and includes several completely worked out examples The main illustrative examples are synchronous and induction machines The methods described have been used successfully in the design and analysis of most types of rotating and linear machines Audience A valuable reference source for academic researchers practitioners and designers of electrical machinery

Electric Energy Mohamed A. El-Sharkawi, 2015-09-15

The search for renewable energy and smart grids the societal impact of blackouts and the environmental impact of generating electricity along with the new ABET criteria continue to drive a renewed interest in electric energy as a core subject Keeping pace with these changes **Electric Energy An Introduction Third Edition** restructures the traditional introductory electric energy course to better meet the needs of electrical and mechanical engineering students Now in color this third edition of a bestselling textbook gives students a wider view of electric energy without sacrificing depth Coverage includes energy resources renewable energy power plants and their environmental impacts electric safety power quality power market blackouts and future power systems The book also makes the traditional topics of electromechanical conversion transformers power electronics and three phase systems more relevant to students Throughout it emphasizes issues that engineers encounter in their daily work with numerous examples drawn from real systems and real data What's New in This Edition Color illustrations Substation and distribution equipment Updated data on energy resources Expanded coverage of power plants Expanded material on renewable energy Expanded material on electric safety Three phase system and pulse width modulation for DC AC converters Induction generator More information on smart grids Additional problems and solutions Combining the fundamentals of traditional energy conversion with contemporary topics in electric energy this accessible textbook gives students the broad background they need to meet future challenges

Modern Electric, Hybrid Electric, and Fuel Cell Vehicles Mehrdad Ehsani, Yimin Gao, Ali Emadi, 2017-12-19

Air pollution global warming and the steady decrease in petroleum resources continue to stimulate interest in the development of safe clean and highly efficient transportation Building on the foundation of the bestselling first edition **Modern Electric Hybrid Electric and Fuel Cell Vehicles Fundamentals Theory and Design Second Edition** updates and expands its detailed coverage of the vehicle technologies that offer the most promising solutions to these issues affecting the automotive industry Proven as a useful in depth resource and comprehensive reference for modern automotive systems engineers students and researchers this book speaks from the perspective of the overall drive train system and not just its individual components New to the second edition A case study appendix that breaks down the Toyota Prius hybrid system Corrections and updates of the material in the first edition Three new chapters on drive train design methodology and control principles A completely rewritten chapter on Fundamentals of Regenerative Braking Employing sufficient mathematical rigor the authors comprehensively cover vehicle performance characteristics EV and HEV configurations control strategies modeling and simulations for modern vehicles They also cover topics including Drive train architecture analysis and design methodologies Internal Combustion

Engine ICE based drive trains Electric propulsion systems Energy storage systems Regenerative braking Fuel cell applications in vehicles Hybrid electric drive train design The first edition of this book gave practicing engineers and students a systematic reference to fully understand the essentials of this new technology This edition introduces newer topics and offers deeper treatments than those included in the first Revised many times over many years it will greatly aid engineers students researchers and other professionals who are working in automotive related industries as well as those in government and academia

Mechanical Design of Electric Motors Wei Tong,2014-04-28 Rapid increases in energy consumption and emphasis on environmental protection have posed challenges for the motor industry as has the design and manufacture of highly efficient reliable cost effective energy saving quiet precisely controlled and long lasting electric motors Suitable for motor designers engineers and manufacturers as well

Finite Element Analysis Of Electrical Machines Sheppard Joel Salon,2006-10-01

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Alternative Energy Systems M. Godoy Simões,Felix A. Farret,2008 Durable and cost effective induction power generators have undergone numerous improvements that make them an increasingly attractive option for renewable energy applications particularly for wind and hydropower generation systems From fundamental concepts to the latest technologies **Alternative Energy Systems Design and Analysis with Induction Generators** Second Edition provides detailed and accurate coverage of all aspects related to the design operation and overall analysis of such systems Placing a greater emphasis on providing clear precise and succinct explanations this second edition features new revised and updated content as well as figures tables equations and examples Each chapter introduces a multi step chapter length problem relating the material to a real application The solution appears at the end of the chapter along with additional practice problems and references

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Canadiana ,1991

Bibliographic Guide to Technology New York Public Library. Research Libraries,1978

Electric Technology U.S.S.R. ,1986

Polyphase Motors Enrico Levi,1984-02-06 Provides the general background for design of electrical motors by placing motor design in the context of the overall drive and its function and with a survey of the various electrical and mechanical components The design itself is addressed using an original approach based on first principles it begins with the design specifications expresses them in terms of electric and magnetic stresses establishes appropriate geometry and

arrives at the dimensions Unconventional topologies are also discussed **Structural Mechanics Software Series** ,1977
 The British National Bibliography Arthur James Wells,2006 **Proceedings** American Society for Engineering
Education. Conference,1994 **American Book Publishing Record** ,1996 **Annual Conference Proceedings**
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