

Electrical Engineering Research Topics

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 Emerging Nanotechnology Applications in Electrical Engineering
 Journal of the Institution of Electrical Engineers
 Handbook of Research on Smart Power System Operation and Control
 Emerging Research in Electronics, Computer Science and Technology
 Electromagnetic Fields in Electrical Engineering
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 Handbook of Research on Power and Energy System Optimization
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 Electrical Engineering for All Engineers
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 Advances in Neural Network Research and Applications
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 Electrical Insulation Breakdown and Its Theory, Process, and Prevention: Emerging Research and Opportunities
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 Computational Methodologies for Electrical and Electronics Engineers
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 Wiley Encyclopedia of Electrical and Electronics Engineering
 Fundamental Research in Electrical Engineering
 Scientific Computing in Electrical Engineering
 Electrical Energy Efficiency
 Energy Storage Systems
 Computer, Communication and Electrical Technology
 University of Michigan Official Publication
 Handbook of Research on Recent Developments in Electrical and Mechanical Engineering
 Advanced Electrical and Electronics Engineering
 Advances in Electronics Engineering

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Eco-design in Electrical Engineering Springer Nature
 Explores state-of-the-art software architectures and platforms used to support distributed and mobile e-learning systems.
Emerging Nanotechnology Applications in Electrical Engineering MIT Press
 The second edition of this popular engineering reference book, previously titles Newnes Electrical Engineer's Handbook, provides a basic understanding of the underlying theory and operation of the major classes of electrical equipment. With coverage including the key principles of electrical engineering and the design and operation of electrical equipment, the book uses clear descriptions and logical presentation of data to explain electrical power and its applications. Each chapter is written by leading professionals and academics, and many sections conclude with a summary of key standards. The new edition is updated in line with recent advances in EMC, power quality and the structure and operation of power systems, making Newnes Electrical Power Engineer's Handbook an invaluable guide for today's electrical

power engineer. - A unique, concise reference book with contributions from eminent professionals in the field - Provides straightforward and practical explanations, plus key information needed by engineers on a day-to-day basis - Includes a summary of key standards at the end of each chapter

Journal of the Institution of Electrical Engineers MDPI
 Because society depends greatly on electric energy, power system control and protection focuses on ensuring a secure and reliable supply of power. To operate the electric systems in safe mode, the power system component should be equipped with intelligent controllers. The Handbook of Research on Smart Power System Operation and Control is a collection of innovative research on the theoretical and practical developments in smart power system operation and control that takes into account both smart grid and micro-grid systems. While highlighting topics including cybersecurity, smart grid, and wide area monitoring, this book is ideally designed for researchers, students, and industry professionals.

Handbook of Research on Smart Power System Operation and Control Springer Science & Business Media
 Artificial intelligence has been applied to many areas of science and technology, including the power and energy sector.

Renewable energy in particular has experienced the tremendous positive impact of these developments. With the recent evolution of smart energy technologies, engineers and scientists working in this sector need an exhaustive source of current knowledge to effectively cater to the energy needs of citizens of developing countries. *Computational Methodologies for Electrical and Electronics Engineers* is a collection of innovative research that provides a complete insight and overview of the application of intelligent computational techniques in power and energy. Featuring research on a wide range of topics such as artificial neural networks, smart grids, and soft computing, this book is ideally designed for programmers, engineers, technicians, ecologists, entrepreneurs, researchers, academicians, and students.

Emerging Research in Electronics, Computer Science and Technology IGI Global

2010 First International Conference on Electrical and Electronics Engineering was held in Wuhan, China December 4-5. *Advanced Electrical and Electronics Engineering* book contains 72 revised and extended research articles written by prominent researchers participating in the conference. Topics covered include, Power Engineering, Telecommunication, Control engineering, Signal processing, Integrated circuit, Electronic amplifier, Nano-technologies, Circuits and networks, Microelectronics, Analog circuits, Digital circuits, Nonlinear circuits, Mixed-mode circuits, Circuits design, Sensors, CAD tools, DNA computing, Superconductivity circuits. *Electrical and Electronics Engineering* will offer the state of art of tremendous advances in Electrical and Electronics Engineering and also serve as an excellent reference work for researchers and graduate students working with/on Electrical and Electronics Engineering.

Electromagnetic Fields in Electrical Engineering IGI Global

The energy sector continues to receive increased attention from both consumers and producers due to its impact on all aspects of life. Electrical energy especially has become more in demand because of the delivery of the service to a large percentage of consumers in addition to the progress and increase of industrial production. It is thus necessary to find advanced systems capable of transferring huge amounts of electrical energy efficiently and safely. Nanotechnology aims to develop new types of atomic electronics that adopt quantum mechanics and the movement of individual particles to produce equipment faster and smaller and solve problems attributed to the electrical engineering field. *Emerging Nanotechnology Applications in Electrical Engineering* contains innovative research on the methods and applications of nanoparticles in electrical engineering. This book discusses the wide array of uses nanoparticles have within electrical engineering and the diverse electric and magnetic properties that nanomaterials help make prevalent. While highlighting topics including electrical applications, magnetic applications, and electronic applications, this book is ideally designed for researchers, engineers, industry professionals, practitioners, scientists, managers, manufacturers, analysts, students, and educators seeking current research on nanotechnology in electrical, electronic, and industrial applications.

Special Topics in Information Technology CRC Press

This book is the collection of the contributions offered at the International Symposium on Electromagnetic Fields in Electrical Engineering, ISEF '87, held in Pavia, Italy, in September 1987. The Symposium was attended by specialists engaged in both theoretical and applied research in low-frequency electromagnetism. The charming atmosphere of Pavia and its ancient university provided a very effective environment to discuss the latest results in the field and, at the same time, to enjoy the company of colleagues and friends coming from over

15 countries. The contributions have been grouped into 7 chapters devoted to fundamental problems, computer programs, transformers, rotating electrical machines, mechanical and thermal effects, various applications and synthesis, respectively. Such a classification is merely to help the reader because a few papers could be put in several chapters. Over the past two decades electromagnetic field computations have received a big impulse by the large availability of digital computers with better and better performances in speed and capacity. Many various methods have been developed but not all of them appear convenient enough for practical engineering use. In fact, the technical and industrial challenges set some principal attributes and criteria for good computation methods. They should be relatively easy to use, fit into moderately sized computers, yield useful design data, maintain flexibility with minimum cost in time and effort.

ERDA Energy Research Abstracts Springer Science & Business Media

The improvement of electrical energy efficiency is fast becoming one of the most essential areas of sustainability development, backed by political initiatives to control and reduce energy demand. Now a major topic in industry and the electrical engineering research community, engineers have started to focus on analysis, diagnosis and possible solutions. Owing to the complexity and cross-disciplinary nature of electrical energy efficiency issues, the optimal solution is often multi-faceted with a critical solutions evaluation component to ensure cost effectiveness. This single-source reference brings a practical focus to the subject of electrical energy efficiency, providing detailed theory and practical applications to enable engineers to find solutions for electroefficiency problems. It presents power supplier as well as electricity user perspectives and promotes routine implementation of good engineering practice. Key features include: a comprehensive overview of the different technologies involved in electroefficiency, outlining monitoring and control concepts and practical design techniques used in industrial applications; description of the current standards of electrical motors, with illustrative case studies showing how to achieve better design; up-to-date information on standardization, technologies, economic realities and energy efficiency indicators (the main types and international results); coverage on the quality and efficiency of distribution systems (the impact on distribution systems and loads, and the calculation of power losses in distribution lines and in power transformers). With invaluable practical advice, this book is suited to practicing electrical engineers, design engineers, installation designers, M&E designers, and economic engineers. It equips maintenance and energy managers, planners, and infrastructure managers with the necessary knowledge to properly evaluate the wealth of electrical energy efficiency solutions for large investments. This reference also provides interesting reading material for energy researchers, policy makers, consultants, postgraduate engineering students and final year undergraduate engineering students.

Handbook of Research on Power and Energy System Optimization Springer

This proceedings book features selected papers on 12 themes, including telecommunication, power systems, digital signal processing, robotics, control systems, renewable energy, power electronics, soft computing and more. Covering topics such as optoelectronic oscillator at S-band and C-band for 5G telecommunications, neural networks identification of eleven types of faults in high voltage transmission lines, cyber-attack mitigation on smart low voltage distribution grids, optimum load of a piezoelectric-based energy harvester, the papers present

interesting ideas and state-of-the-art overviews.

Energy Research Abstracts Springer Science & Business Media
Proceedings of the NATO Advanced Study Institute, Çesme, Izmir,
Turkey, 27 June-8 July, 1988

Electrical, Computer, and Systems Engineering IGI Global

This volume presents the selected papers of the First International Conference on Fundamental Research in Electrical Engineering, held at Khwarazmi University, Tehran, Iran in July, 2017. The selected papers cover the whole spectrum of the main four fields of Electrical Engineering (Electronic, Telecommunications, Control, and Power Engineering).

AETA 2019 - Recent Advances in Electrical Engineering and Related Sciences: Theory and Application Elsevier

The definitive toolkit for doctoral students in engineering on thesis—and journal—article preparation, project (and stress) management, IP protection, collaborations, and other aspects of the PhD journey. It shouldn't take a PhD to get a PhD, but sometimes the process can seem that confusing—even though, to the mentors and advisors, so obvious that it goes without saying. For doctoral students in engineering confronting this dilemma, Caroline Boudoux, an accomplished researcher and entrepreneur, provides a demystifying guide to the challenges—daunting, seemingly routine, and at times unexpected—of pursuing a PhD in this demanding field. In *It Goes without Saying*, Boudoux marshals her own considerable experience mentoring graduate students, teaching doctoral workshops, and—not so long ago—earning her own PhD at MIT to give PhD candidates the know-how, and the confidence, to succeed. Among the topics this book takes up are: What a PhD is: the journey, the milestones, and the endgame. Technical questions about what a doctoral project in engineering is and how to lead one. Practical matters including tips on writing, from proposal to dissertation; ethics; and intellectual property. Personal concerns, such as dealing with expectations, imposter syndrome, and stress. From the mundane to the metaphysical, this user-friendly guide gives the doctoral student in engineering the tools to make it from Day 1 to the successful completion of the PhD in a timely, fully informed, and forward-looking manner.

Electrical Engineering for All Engineers IGI Global

This open access book presents nine outstanding doctoral dissertations in Information Technology from the Department of Electronics, Information and Bioengineering, Politecnico di Milano, Italy. Information Technology has always been highly interdisciplinary, as many aspects have to be considered in IT systems. The doctoral studies program in IT at Politecnico di Milano emphasizes this interdisciplinary nature, which is becoming more and more important in recent technological advances, in collaborative projects, and in the education of young researchers. Accordingly, the focus of advanced research is on pursuing a rigorous approach to specific research topics starting from a broad background in various areas of Information Technology, especially Computer Science and Engineering, Electronics, Systems and Controls, and Telecommunications. Each year, more than 50 PhDs graduate from the program. This book gathers the outcomes of the nine best theses defended in 2018-19 and selected for the IT PhD Award. Each of the nine authors provides a chapter summarizing his/her findings, including an introduction, description of methods, main achievements and future work on the topic. Hence, the book provides a cutting-edge overview of the latest research trends in Information Technology at Politecnico di Milano, presented in an easy-to-read format that will also appeal to non-specialists.

Mechanical And Electronics Engineering - Proceedings Of The International Conference On Icmee 2009 Springer Science & Business Media

This book is a collection of selected papers presented at the last Scientific Computing in Electrical Engineering (SCEE) Conference, held in Sinaia, Romania, in 2006. The series of SCEE conferences aims at addressing mathematical problems which have a relevance to industry, with an emphasis on modeling and numerical simulation of electronic circuits, electromagnetic fields but also coupled problems and general mathematical and computational methods.

Electrical Engineering and Applied Computing IGI Global
Vols. for 1970-79 include an annual special issue called IEE reviews.

Proceedings of the Institution of Electrical Engineers UM Libraries

This book is a part of the Proceedings of the Seventh International Symposium on Neural Networks (ISNN 2010), held on June 6-9, 2010 in Shanghai, China. Over the past few years, ISNN has matured into a well-established premier international symposium on neural networks and related fields, with a successful sequence of ISNN series in Dalian (2004), Chongqing (2005), Chengdu (2006), Nanjing (2007), Beijing (2008), and Wuhan (2009). Following the tradition of ISNN series, ISNN 2010 provided a high-level international forum for scientists, engineers, and educators to present the state-of-the-art research in neural networks and related fields, and also discuss the major opportunities and challenges of future neural network research. Over the past decades, the neural network community has witnessed significant breakthroughs and developments from all aspects of neural network research, including theoretical foundations, architectures, and network organizations, modeling and simulation, empirical studies, as well as a wide range of applications across different domains. The recent developments of science and technology, including neuroscience, computer science, cognitive science, nano-technologies and engineering design, among others, has provided significant new understandings and technological solutions to move the neural network research toward the development of complex, large scale, and networked brain-like intelligent systems. This long-term goals can only be achieved with the continuous efforts from the community to seriously investigate various issues on neural networks and related topics.

Advances in Neural Network Research and Applications IGI Global

Electrical and electronics engineering entails the design, development and implementation of electrical and electronic power systems. This may be as simple as designing a light bulb or as complex as the development of robotics for automating manufacturing. This Encyclopedia covers both the theory of electrical and electronics engineering as well as practical applications for industry. The annual update volume describes the latest developments in the field.

Architectures for Distributed and Complex M-Learning Systems: Applying Intelligent Technologies John Wiley & Sons

As the demand for efficient energy sources continues to grow, electrical systems are becoming more essential to meet these increased needs. Electrical generation and transmission plans must remain cost-effective, reliable, and flexible for further future expansion. As these systems are being utilized more frequently, it becomes imperative to find ways of optimizing their overall function. *Novel Advancements in Electrical Power Planning and Performance* is an essential reference source that provides vital research on the specific challenges, issues, strategies, and solutions that are associated with electrical transmission and distribution systems and features emergent methods and research in the systemic and strategic planning of energy usage. Featuring research on topics such as probabilistic modeling, voltage stability, and radial distribution, this book is ideally designed for electrical engineers, practitioners, power plant

managers, investors, industry professionals, researchers, academicians, and students seeking coverage on the methods and profitability of electrical expansion planning.

Basic Electricity Fundamental Research in Electrical Engineering Transportation systems play a major role in the reduction of energy consumptions and environmental impact all over the world. The significant amount of energy of transport systems forces the adoption of new solutions to ensure their performance with energy-saving and reduced environmental impact. In this context, technologies and materials, devices and systems, design methods, and management techniques, related to the electrical power systems for transportation are continuously improving thanks to research activities. The main common challenge in all the applications concerns the adoption of innovative solutions that can improve existing transportation systems in terms of efficiency and sustainability.

Electrical Insulation Breakdown and Its Theory, Process,

and Prevention: Emerging Research and Opportunities IGI Global

Technological advancements continue to enhance the field of engineering and have led to progress in branches that include electrical and mechanical engineering. These technologies have allowed for more sophisticated circuits and components while also advancing renewable energy initiatives. With increased growth in these fields, there is a need for a collection of research that details the variety of works being studied in our globalized world. The Handbook of Research on Recent Developments in Electrical and Mechanical Engineering is a pivotal reference source that discusses the latest advancements in these engineering fields. Featuring research on topics such as materials manufacturing, microwave photons, and wireless power transfer, this book is ideally designed for graduate students, researchers, engineers, manufacturing managers, and academicians seeking coverage on the works and experiences achieved in electrical and mechanical engineering.

Best Sellers - Books :

- [Young Forever: The Secrets To Living Your Longest, Healthiest Life \(the Dr. Hyman Library, 11\)](#)
- [How To Catch A Mermaid](#)
- [Bluey And Bingo's Fancy Restaurant Cookbook: Yummy Recipes, For Real Life](#)
- [It's Not Summer Without You](#)
- [Lessons In Chemistry: A Novel](#)
- [Hunting Adeline \(cat And Mouse Duet\) By H. D. Carlton](#)
- [The Collector: A Novel](#)
- [Dark Future: Uncovering The Great Reset's Terrifying Next Phase \(the Great Reset Series\)](#)
- [World Of Eric Carle, Around The Farm 30-button Animal Sound Book - Great For First Words - Pi Kids](#)
- [House Of Flame And Shadow \(crescent City, 3\) By Sarah J. Maas](#)