

Paper Pattern For Se Electrical Pune University

Electrical Machines - II Basic Electrical Engineering Semester-II (RTM) Nagpur University A Textbook of Electrical Technology A Textbook of Electrical Technology - Volume I (Basic Electrical Engineering) Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid Power Generation Technologies BASIC ELECTRICAL ENGINEERING Advances in Signal and Data Processing Investigation of Spatial Control Strategies with Application to Advanced Heavy Water Reactor Flexible Electronics for Electric Vehicles 4th International Conference, Power System Protection and Automation, 21-22 November 2007, New Delhi, India Switchgear & Protection Using Computational Intelligence for the Dark Web and Illicit Behavior Detection Electric Motors Proceedings of International Conference on Communication and Artificial Intelligence Network Analysis Electrical Machines - I Basic Electrical and Electronics Engineering Electrical Engineering Brain and Behavior Computing Basic Electrical Engineering Electrical Measurements and Instrumentation Solid State Physics Smart Classroom with Intelligent Projector Atoms, Molecules and Clusters in Electric Fields Green Internet of Things and Machine Learning 3D Point Cloud Analysis Machine Learning and Deep Learning in Real-Time Applications Artificial Neural Network for Drug Design, Delivery and Disposition Artificial Intelligence in Information and Communication Technologies, Healthcare and Education Fractional Order Systems Data Management, Analytics and Innovation Machine Learning Algorithms for Signal and Image Processing Machine Learning Algorithms for Signal and Image Processing Electrical Instrumentation & Process Control Multiple Criteria Decision Making Hidden Markov Models Basic Electrical & Instrumentation Engineering Progress in Intelligent Computing Techniques: Theory, Practice, and Applications S.Chand'S Problems in Engineering Physics

Eventually, you will enormously discover a extra experience and skill by spending more cash. yet when? accomplish you take that you require to get those every needs once having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will guide you to comprehend even more concerning the globe, experience, some places, past history, amusement, and a lot more?

It is your agreed own era to work reviewing habit. in the midst of guides you could enjoy now is Paper Pattern For Se Electrical Pune University below.

Electrical Engineering Apr 16 2021

Electrical Machines - II Nov 04 2022 The importance of various electrical machines is well known in the various engineering fields. The book provides comprehensive coverage of the synchronous generators (alternators), synchronous motors, three phase and single phase induction motors and various special machines. The book is structured to cover the key aspects of the course Electrical Machines - II. The book starts with the explanation of basics of synchronous generators including construction, winding details and e.m.f. equation. The book then explains the concept of armature reaction, phasor diagrams, regulation and various methods of finding the regulation of alternator. Stepwise explanation and simple techniques used to elaborate these methods is the feature of this book. The book further explains the concept of synchronization of alternators, two reaction theory and parallel operation of alternators. The chapter on synchronous motor provides the detailed discussion of construction, working principle, behavior on load, analysis of phasor diagram, Vee and Inverted Vee curves, hunting and applications. The book further explains the three phase induction motors in detail. It includes the construction, working, effect of slip, torque equation, torque ratios, torque-slip characteristics, losses, power flow, equivalent circuit, effect of harmonics on the performance and applications. This chapter includes the discussion of induction generator and synchronous induction motor. The detailed discussion of circle diagram is also included in the book. The book teaches the various starting methods, speed control methods and electrical braking methods of three phase induction motors. Finally, the book gives the explanation of various single phase induction motors and special machines such as reluctance motor, hysteresis motor, repulsion motor, servomotors and stepper motors. The discussion of magnetic levitation is also incorporated in the book. The book uses plain, lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. Each chapter is well supported with necessary illustrations, self explanatory diagrams and variety of solved problems. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Progress in Intelligent Computing Techniques: Theory, Practice, and Applications Jul 28 2019 The book focuses on both theory and applications in the broad areas of communication technology, computer science and information security. This two volume book contains the Proceedings of 4th International Conference on Advanced Computing, Networking and Informatics. This book brings together academic scientists, professors, research scholars and students to share and disseminate information on knowledge and scientific research works related to computing, networking, and informatics to discuss the practical challenges encountered and the solutions adopted. The book also promotes translation of basic research into applied investigation and convert applied investigation into practice.

Atoms, Molecules and Clusters in Electric Fields Oct 11 2020 With the central importance of electric polarizability and hyperpolarizability for a wide spectrum of activities, this book charts the trends in the accurate theoretical determination of these properties in specialized fields. The contributions include reviews and original papers that extend from methodology to applications in specific areas of primary importance such as cluster science and organic synthesis of molecules with specific properties.

Fractional Order Systems Apr 04 2020 Fractional Order Systems: Optimization, Control, Circuit Realizations and Applications consists of 21 contributed chapters by subject experts. Chapters offer practical solutions and novel methods for recent research problems in the multidisciplinary applications of fractional order systems, such as FPGA, circuits, memristors, control algorithms, photovoltaic systems, robot manipulators, oscillators, etc. This book is ideal for researchers working in the modeling and applications of both continuous-time and discrete-time dynamics and chaotic systems. Researchers from academia and industry who are working in research areas such as control engineering, electrical engineering, mechanical engineering, computer science, and information technology will find the book most informative. Discusses multi-disciplinary applications with new fundamentals, modeling, analysis, design, realization and experimental results Includes new circuits and systems based on the new nonlinear elements Covers most of the linear and nonlinear fractional-order theorems that will solve many scientific issues for researchers Closes the gap between theoretical approaches and real-world applications Provides MATLAB® and Simulink code for many of the applications in the book

Network Analysis Jul 20 2021 The book covers all the aspects of Network Analysis for undergraduate course. The book provides comprehensive coverage of network analysis and simplification techniques, network theorems, graph theory, transient analysis, filters, attenuators, Laplace transform, network functions and two port network parameters with the help of large number of solved problems. The book starts with explaining the various network simplification techniques including mesh analysis, node analysis and source shifting. The basics of a.c. fundamentals are also explained in support. The book covers the various network theorems. Then the book explains the graph theory, its application in network analysis along with the concept of duality. The transient analysis of various networks is also explained in the book. The book incorporates the detailed discussion of resonant circuits. The book also explains the theory of four terminal networks, filters and attenuators. The Laplace transform plays an important role in the network analysis. The chapter on Laplace transform includes properties of Laplace transform and its application in the network analysis. The book includes the discussion of network functions of one and two port networks. The book covers the various aspects of two port network parameters along with the conditions of symmetry and reciprocity. It also derives the interrelationships between the two port network parameters. The book uses plain and lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. The variety of solved examples is the feature of this book. The book explains the philosophy of the subject which makes the understanding of the subject very clear and makes the subject more interesting. The students have to omit nothing and possibly have to cover nothing more.

Smart Classroom with Intelligent Projector Nov 11 2020 This book gives a complete description of the topic that provides solutions for classroom projectors. After one year of complete dedication and hard work we designed a system and named it "Smart Classroom with Intelligent Projector". The project mentioned in this book will help the teacher present in the classroom to allow them to control the classroom and projector using an android application in the Android smartphone. We are publishing this book so that others should also get help and implement such a system in their College and Institutes.

Electric Motors Sep 21 2021 The importance of electric motors is well known in the various engineering fields. The book provides comprehensive coverage of the various types of electric motors including d.c. motors, three phase and single phase induction motors, synchronous motors, universal motor, a.c. servomotor, linear induction motor and stepper motors. The book covers all the details of d.c. motors including torque equation, back e.m.f., characteristics, types of starters, speed control methods and applications. The book also covers the various testing methods of d.c. motors such as Swinburne's test, brake test, retardation test, field test and Hopkinson's test. The book further explains the three phase induction motors in detail. It includes the production of rotating magnetic field, construction, working, effect of slip, torque equation, torque ratios, torque-slip characteristics, losses, power flow, equivalent circuit, effect of harmonics on the performance, circle diagram and applications. This chapter also includes the discussion of induction generator. The book teaches the various starting methods and speed control methods of three phase induction motors. The book incorporates the explanation of various single phase induction motors. The chapter on synchronous motor provides the detailed discussion of construction, working principle, behavior on load, analysis of phasor diagram, Vee and Inverted Vee curves, hunting, synchronous condenser and applications. The book also teaches the various special machines such as single phase commutator motors, universal motor, a.c. servomotor, linear induction motor and stepper motors. The book uses plain, lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. Each chapter is well supported with necessary illustrations, self explanatory diagrams and variety of solved problems. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Investigation of Spatial Control Strategies with Application to Advanced Heavy Water Reactor Feb 24 2022 This book examines the different spatial control techniques for regulation of spatial power distribution in advanced heavy water reactors (AHWR). It begins with a review of the literature pertinent to the modeling and control of large reactors. It also offers a nodal-core model based on finite difference approximation since the AHWR core is considered to be divided into 17 relatively large nodes. Further, it introduces a nonlinear model characterizing important thermal hydraulics parameters of AHWR and integrates it into the neutronics model to obtain a coupled neutronics-thermal hydraulics model of AHWR. The book also presents a vectorized nonlinear model of AHWR and implements it in MATLAB/Simulink environment. The model of the reactor is then linearized at the rated power and put into standard state variable form. It is characterized by 90 states, 5 inputs and 18 outputs. Lastly, it discusses control techniques for a nonlinear model of AHWR. This book will prove to be a valuable resource for professional engineers and implementation specialists, researchers and students.

S.Chand'S Problems in Engineering Physics Jun 26 2019 For the first year students of B.E./B.Tech/B.Arch. and also useful for competitive Examinations. A number of problems are solved. New problems are included in order to expedite the learning process of students of all hues and to improve their academic performance. Each chapter divided into smaller parts and subheading are provided to make the reading a pleasant journey

Machine Learning Algorithms for Signal and Image Processing Feb 01 2020 Machine Learning Algorithms for Signal and Image Processing Enables readers to understand the fundamental concepts of machine and deep learning techniques with interactive, real-life applications within signal and image processing Machine Learning Algorithms for Signal and Image Processing aids the reader in designing and developing real-world applications using advances in machine learning to aid and enhance speech signal processing, image processing, computer vision, biomedical signal processing, adaptive filtering, and text processing. It includes signal processing techniques applied for pre-processing, feature extraction, source separation, or data decompositions to achieve machine learning tasks. Written by well-qualified authors and contributed to by a team of experts within the field, the work covers a wide range of important topics, such as: Speech recognition, image reconstruction, object classification and detection, and text processing Healthcare monitoring, biomedical systems, and green energy How various machine and deep learning techniques can improve accuracy, precision rate recall rate, and processing time Real applications and examples, including smart sign language recognition, fake news detection in social media, structural damage prediction, and epileptic seizure detection Professionals within the field of signal and image processing seeking to adapt their work further will find immense value in this easy-to-understand yet extremely comprehensive reference work. It is also a worthy resource for students and researchers in related fields who are looking to thoroughly understand the historical and recent developments that have been made in the field.

Switchgear & Protection Nov 23 2021 The knowledge of switchgear and apparatus protection plays an important role in the power system. The book is structured to cover

the key aspects of the course *Switchgear & Protection* for undergraduate students. The book starts with the discussion of basics of protective relaying. The book includes comprehensive coverage of faults and analysis of symmetrical and unsymmetrical faults. The book explains the protection against overvoltage, lightning arresters and power system earthing. The book covers the characteristics of various types of relays such as electromagnetic relays, induction type relays, directional relays, differential relays, thermal relays, frequency relays and negative sequence relays. The detailed discussion of distance relays and static relays is also included in the book. The book also covers the various possible faults and methods of protection of transformers, generators, motors, busbars and transmission lines. The book further explains the theory of circuit interruption and various arc interruption methods. Finally, the book incorporates various types of circuit breakers, circuit breaker ratings and testing of circuit breakers. The book uses plain and lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. Each chapter is well supported with necessary illustrations and self-explanatory diagrams. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Electrical Measurements and Instrumentation Jan 14 2021 The importance of measuring instruments and transducers is well known in the various engineering fields. The book provides comprehensive coverage of various electrical and electronic measuring instruments, transducers, data acquisition system, storage and display devices. The book starts with explaining the theory of measurement including characteristics of instruments, classification, standards, statistical analysis and limiting errors. Then the book explains the various electrical and electronic instruments such as PMMC, moving iron, electrodynamic type, energy meter, wattmeter, digital voltmeters and multimeters. It also includes the discussion of various magnetic measurements, instrument transformers, power factor meters, frequency meters, phase meters and synchros. The book further explains d.c. and a.c. potentiometers and their applications. The book teaches various d.c. and a.c. bridges along with necessary derivations and phasor diagrams. The book incorporates the various storage and display devices such as, recorders, plotters, printers, oscilloscopes, LED, LCDs and dot matrix displays. The chapter on transducers is dedicated to the detailed discussion of various types of transducers such as resistive, capacitive, strain gauges, RTD, thermistors, inductive, LVDT, thermocouples, piezoelectric, photoelectric and digital transducers. It also adds the discussion of optical fiber sensors. The book also includes good coverage of data acquisition system, data loggers, DACs and ADCs. Each chapter starts with the background of the topic. Then it gives the conceptual knowledge about the topic dividing it in various sections and subsections. Each chapter provides the detailed explanation of the topic, practical examples and variety of solved problems. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Hidden Markov Models Sep 29 2019 Hidden Markov models (HMMs) originally emerged in the domain of speech recognition. In recent years, they have attracted growing interest in the area of computer vision as well. This book is a collection of articles on new developments in the theory of HMMs and their application in computer vision. It addresses topics such as handwriting recognition, shape recognition, face and gesture recognition, tracking, and image database retrieval. This book is also published as a special issue of the *International Journal of Pattern Recognition and Artificial Intelligence* (February 2001). Contents: Introduction: A Simple Complex in Artificial Intelligence and Machine Learning (B H Juang) An Introduction to Hidden Markov Models and Bayesian Networks (Z Chahramani) Multi-Lingual Machine Printed OCR (P Natarajan et al.) Using a Statistical Language Model to Improve the Performance of an HMM-Based Cursive Handwriting Recognition System (U-V Marti & H Bunke) A 2-D HMM Method for Offline Handwritten Character Recognition (H-S Park et al.) Data-Driven Design of HMM Topology for Online Handwriting Recognition (J J Lee et al.) Hidden Markov Models for Modeling and Recognizing Gesture Under Variation (A D Wilson & A F Bobick) Sentence Lipreading Using Hidden Markov Model with Integrated Grammar (K Yu et al.) Tracking and Surveillance in Wide-Area Spatial Environments Using the Abstract Hidden Markov Model (H H Bui et al.) Shape Tracking and Production Using Hidden Markov Models (T Caelli et al.) An Integrated Approach to Shape and Color-Based Image Retrieval of Rotated Objects Using Hidden Markov Models (S Müller et al.) Readership: Graduate students of computer science, electrical engineering and related fields, as well as researchers at academic and industrial institutions. Keywords: Hidden Markov Models; Gesture Recognition; Bayesian Networks; Optical Character Recognition; Handwriting Character Recognition; Cartography; Shape Extraction; Image Feature Extraction.

Advances in Signal and Data Processing Mar 28 2022 This book presents the select peer-reviewed proceedings of the International Conference on Signal and Data Processing (ICSDP) 2019. It examines and deliberates on the recent progresses in the areas of communication and signal processing. The book includes topics on the recent advances in the areas of wired and wireless communication, low complexity architecture of MIMO receivers, applications on wireless sensor networks and internet of things, signal processing, image processing and computer vision, VLSI embedded systems, cognitive networks, power electronics and automation, mechatronics based applications, systems and control, cognitive science and machine intelligence, information security and big data. The contents of this book will be useful for beginners, researchers, and professionals interested in the area of communication, signal processing, and allied fields.

A Textbook of Electrical Technology - Volume I (Basic Electrical Engineering) Aug 01 2022 The primary objective of vol. I of A Text Book of Electrical Technology is to provide a comprehensive treatment of topics in Basic Electrical Engineering both for electrical as well as nonelectrical students pursuing their studies in civil, mechanical, mining, textile, chemical, industrial, environmental, aerospace, electronics and computer engineering both at the Degree and diploma level. Based on the suggestions received from our esteemed readers, both from India and abroad, the scope of the book has been enlarged according to their requirements. Almost half the solved examples have been deleted and replaced by latest examination papers set upto 1994 in different engineering collage and technical institutions in India and abroad.

Flexible Electronics for Electric Vehicles Jan 26 2022 This book compiles the refereed papers presented during the 2nd Flexible Electronics for Electric Vehicles (FlexEV - 2021). It presents the diligent work of the research community on flexible electronics applications in different allied fields of engineering - engineering materials to electrical engineering to electronics and communication engineering. The theoretical research concepts are supported with extensive reviews highlighting the trends in the possible and real-life applications of electric vehicles. This book will be useful for research scholars, electric vehicles professionals, driving system designers, and postgraduates from allied domains. This book incorporates economical and efficient electric vehicle driving and the latest innovations in electric vehicle technology with their paradigms and methods that employ knowledge in the research community.

Electrical Instrumentation & Process Control Dec 01 2019 The book covers all the aspects of the course *Electrical Instrumentation and Process Control* for the undergraduate students. The various types of transducers, measurement of flow, pressure, level, velocity, discussion of telemetry, data acquisition system, display devices, recorders, computer aided measurements, optic fiber and smart sensors and various types of controllers are explained in the book with the help of comprehensive approach. The book starts with classification, characteristics and selection factors for the transducers. It also explains the resistive transducers, strain gauge, RTD, thermistors, thermocouples, inductive transducers and LVDT. Then the book covers the capacitive, piezoelectric and Hall effect transducers. It also includes the methods of measurement of motion pressure, flow, velocity and level. The book also includes the chapters on telemetry and data acquisition system. The chapter on display devices and recorders includes the discussion of various display devices such as LED, LCD, dot matrix and their applications. The discussion of oscilloscope measurements, Lissajous figure and digital storage oscilloscope is included in support. The book further explains various types of recorders, spectrum analyzer, digital data recording and techniques of DAC and ADC. The inclusion of recent developments in measurements such as computer aided measurement, optical fiber and smart sensors is the feature of the book. Finally, various controllers used in process control are discussed including the discussion of electronic, pneumatic and digital controllers. The book also incorporates the discussion of PLC and its applications. Each chapter gives the conceptual knowledge about the topic dividing it in various sections and subsections. Each chapter provides the comprehensive theory and real time practical examples. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Solid State Physics Dec 13 2020 This volume covers the proceedings of the 44th Department of Atomic Engineering (DAE) Solid State Physics Symposium. With contributions of papers from institutions from around the world. Contains 316 research articles, including 28 invited papers, on a wide range of topics of current interest in solid state physics comprising the following categories: Phase Transitions Phonons Soft-condensed Matter Electronic Structure Novel Materials Superconductivity Experimental Techniques and Instrumentation Magnetism Liquids, Glasses and Amorphous Systems Transport Properties Relaxation Studies Semiconductor Physics Surface Science Key Features: Recent developments in Synchrotron Research Photo-electron Spectroscopy Newly emerging superconductors

Basic Electrical Engineering Semester-II (RTW) Nagpur University Oct 03 2022 "Basic Electrical Engineering" is written exclusively for B. Tech. Second semester students of various branches as per the revised syllabus of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur (RTMNU, Nagpur). Each of the important topics that help the student in learning the principles of Electrical Engineering more effectively have been included.

A Textbook of Electrical Technology Sep 02 2022 For Mechanical Engineering Students of Indian Universities. It is also available in 4 Individual Parts

Machine Learning and Deep Learning in Real-Time Applications Jul 08 2020 Artificial intelligence and its various components are rapidly engulfing almost every professional industry. Specific features of AI that have proven to be vital solutions to numerous real-world issues are machine learning and deep learning. These intelligent agents unlock higher levels of performance and efficiency, creating a wide span of industrial applications. However, there is a lack of research on the specific uses of machine/deep learning in the professional realm. Machine Learning and Deep Learning in Real-Time Applications provides emerging research exploring the theoretical and practical aspects of machine learning and deep learning and their implementations as well as their ability to solve real-world problems within several professional disciplines including healthcare, business, and computer science. Featuring coverage on a broad range of topics such as image processing, medical improvements, and smart grids, this book is ideally designed for researchers, academicians, scientists, industry experts, scholars, IT professionals, engineers, and students seeking current research on the multifaceted uses and implementations of machine learning and deep learning across the globe.

3D Point Cloud Analysis Aug 09 2020 This book introduces the point cloud; its applications in industry, and the most frequently used datasets. It mainly focuses on three computer vision tasks -- point cloud classification, segmentation, and registration -- which are fundamental to any point cloud-based system. An overview of traditional point cloud processing methods helps readers build background knowledge quickly, while the deep learning on point clouds methods include comprehensive analysis of the breakthroughs from the past few years. Brand-new explainable machine learning methods for point cloud learning, which are lightweight and easy to train, are then thoroughly introduced. Quantitative and qualitative performance evaluations are provided. The comparison and analysis between the three types of methods are given to help readers have a deeper understanding. With the rich deep learning literature in 2D vision, a natural inclination for 3D vision researchers is to develop deep learning methods for point cloud processing. Deep learning on point clouds has gained popularity since 2017, and the number of conference papers in this area continue to increase. Unlike 2D images, point clouds do not have a specific order, which makes point cloud processing by deep learning quite challenging. In addition, due to the geometric nature of point clouds, traditional methods are still widely used in industry. Therefore, this book aims to make readers familiar with this area by providing comprehensive overview of the traditional methods and the state-of-the-art deep learning methods. A major portion of this book focuses on explainable machine learning as a different approach to deep learning. The explainable machine learning methods offer a series of advantages over traditional methods and deep learning methods. This is a main highlight and novelty of the book. By tackling three research tasks -- 3D object recognition, segmentation, and registration using our methodology -- readers will have a sense of how to solve problems in a different way and can apply the frameworks to other 3D computer vision tasks, thus give them inspiration for their own future research. Numerous experiments, analysis and comparisons on three 3D computer vision tasks (object recognition, segmentation, detection and registration) are provided so that readers can learn how to solve difficult Computer Vision problems.

Artificial Intelligence in Information and Communication Technologies, Healthcare and Education May 06 2020 "Artificial Intelligence in Information and Communication Technologies, Healthcare and Education: A Roadmap Ahead" is designed as a reference text and discusses inter-dependability, communication and effective control for the betterment of services through artificial intelligence, as well as the challenges and path ahead for AI in computing and control across different domains of business and human life. The book accommodates technologies and application domains including backbone hardware, systems and methods for deployment, which help incorporating intelligence through different supervised and probabilistic learning approaches"---

Machine Learning Algorithms for Signal and Image Processing Jan 02 2020 Enables readers to understand the fundamental concepts of machine and deep learning techniques with interactive, real-life applications within signal and image processing Machine Learning Algorithms for Signal and Image Processing aids the reader in designing and developing real-world applications using advances in machine learning to aid and enhance speech signal processing, image processing, computer vision, biomedical signal processing, adaptive filtering, and text processing. It includes signal processing techniques applied for pre-processing, feature extraction, source separation, or data decompositions to achieve machine learning tasks. Written by well-qualified authors and contributed to by a team of experts within the field, the work covers a wide range of important topics, such as: Speech recognition, image reconstruction, object classification and detection, and text processing Healthcare monitoring, biomedical systems, and green energy How various machine and deep learning techniques can improve accuracy, precision rate recall rate, and processing time Real applications and examples, including smart sign language recognition, fake news detection in social media, structural damage prediction, and epileptic seizure detection Professionals within the field of signal and image processing seeking to adapt their work further will find immense value in this easy-to-understand yet extremely comprehensive reference work. It is also a worthy resource for students and researchers in related fields who are looking to thoroughly understand the historical and recent

developments that have been made in the field.

Basic Electrical and Electronics Engineering May 18 2021

4th International Conference, Power System Protection and Automation, 21-22 November 2007, New Delhi, India Dec 25 2021

Multiple Criteria Decision Making Oct 30 2019 The book discusses state-of-the-art applications and methodologies of the Multiple Criteria Decision Making (MCDM) techniques and approaches. The book focuses on critical literature, underlying principles of methods and models, solution approaches, testing and validation, real-world applications, case studies, etc. The book helps evaluate strategic decision-making through advanced MCDM and integrated approaches of AI, big data, and IoT to provide realistic and robust solutions to the current problems. The book will be a guideline to the potential MCDM researchers about the choice of approaches for dealing with the complexities and modalities. The contributions of the book help readers to explore new avenues leading towards multidisciplinary research discussions. This book will be interesting for engineers, scientists, and students studying/working in the related areas.

Power Generation Technologies May 30 2022 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.

Brain and Behavior Computing Mar 16 2021 Brain and Behavior Computing offers insights into the functions of the human brain. This book provides an emphasis on brain and behavior computing with different modalities available such as signal processing, image processing, data sciences, statistics further it includes fundamental, mathematical model, algorithms, case studies, and future research scopes. It further illustrates brain signal sources and how the brain signal can process, manipulate, and transform in different domains allowing researchers and professionals to extract information about the physiological condition of the brain. Emphasizes real challenges in brain signal processing for a variety of applications for analysis, classification, and clustering. Discusses data sciences and its applications in brain computing visualization. Covers all the most recent tools for analysing the brain and its working. Describes brain modeling and all possible machine learning methods and their uses. Augments the use of data mining and machine learning to brain computer interface (BCI) devices. Includes case studies and actual simulation examples. This book is aimed at researchers, professionals, and graduate students in image processing and computer vision, biomedical engineering, signal processing, and brain and behavior computing.

Electrical Machines - I Jun 18 2021 The importance of various electrical machines is well known in the various engineering fields. The book provides comprehensive coverage of the magnetic circuits, magnetic materials, single and three phase transformers and d.c. machines. The book is structured to cover the key aspects of the course Electrical Machines - I. The book starts with the explanation of basics of magnetic circuits, concepts of self and mutual inductances and important magnetic materials. Then it explains the fundamentals of single phase transformers including the construction, phasor diagram, equivalent circuit, losses, efficiency, methods of cooling, parallel operation and autotransformer. The chapter on three phase transformer provides the detailed discussion of construction, connections, phasor groups, parallel operation, tap changing transformer and three winding transformer. The various testing methods of transformers are also incorporated in the book. The book further explains the concept of electromechanical energy conversion including the discussion of singly and multiple excited systems. Then the book covers all the details of d.c. generators including construction, armature reaction, commutation, characteristics, parallel operation and applications. The book also includes the details of d.c. motors such as characteristics, types of starters, speed control methods, electric braking and permanent magnet d.c. motors. Finally, the book covers the various testing methods of d.c. machines including Swinburne's test, brake test, retardation test and Hopkinson's test. The book uses plain, lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. Each chapter is well supported with necessary illustrations, self-explanatory diagrams and variety of solved problems. All the chapters are arranged in a proper sequence that permits each topic to build upon earlier studies. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Data Management, Analytics and Innovation Mar 04 2020 This book presents the latest findings in the areas of data management and smart computing, big data management, artificial intelligence and data analytics, along with advances in network technologies. Gathering peer-reviewed research papers presented at the Fourth International Conference on Data Management, Analytics and Innovation (ICDMAI 2020), held on 17-19 January 2020 at the United Services Institute (USI), New Delhi, India, it addresses cutting-edge topics and discusses challenges and solutions for future development. Featuring original, unpublished contributions by respected experts from around the globe, the book is mainly intended for a professional audience of researchers and practitioners in academia and industry.

Artificial Neural Network for Drug Design, Delivery and Disposition Jun 06 2020 Artificial Neural Network for Drug Design, Delivery and Disposition provides an in-depth look at the use of artificial neural networks (ANN) in pharmaceutical research. With its ability to learn and self-correct in a highly complex environment, this predictive tool has tremendous potential to help researchers more effectively design, develop, and deliver successful drugs. This book illustrates how to use ANN methodologies and models with the intent to treat diseases like breast cancer, cardiac disease, and more. It contains the latest cutting-edge research, an analysis of the benefits of ANN, and relevant industry examples. As such, this book is an essential resource for academic and industry researchers across the pharmaceutical and biomedical sciences. Written by leading academic and industry scientists who have contributed significantly to the field and are at the forefront of artificial neural network (ANN) research. Focuses on ANN in drug design, discovery and delivery, as well as adopted methodologies and their applications to the treatment of various diseases and disorders. Chapters cover important topics across the pharmaceutical process, such as ANN in structure-based drug design and the application of ANN in modern drug discovery. Presents the future potential of ANN-based strategies in biomedical image analysis and much more.

Using Computational Intelligence for the Dark Web and Illicit Behavior Detection Oct 23 2021 The Dark Web is a known hub that hosts myriad illegal activities behind the veil of anonymity for its users. For years now, law enforcement has been struggling to track these illicit activities and put them to an end. However, the depth and anonymity of the Dark Web has made these efforts difficult, and as cyber criminals have more advanced technologies available to them, the struggle appears to only have the potential to worsen. Law enforcement and government organizations also have emerging technologies on their side, however. It is essential for these organizations to stay up to date on these emerging technologies, such as computational intelligence, in order to put a stop to the illicit activities and behaviors presented in the Dark Web. Using Computational Intelligence for the Dark Web and Illicit Behavior Detection presents the emerging technologies and applications of computational intelligence for the law enforcement of the Dark Web. It features analysis into cybercrime data, examples of the application of computational intelligence in the Dark Web, and provides future opportunities for growth in this field. Covering topics such as cyber threat detection, crime prediction, and keyword extraction, this premier reference source is an essential resource for government organizations, law enforcement agencies, non-profit organizations, politicians, computer scientists, researchers, students, and academicians.

BASIC ELECTRICAL ENGINEERING Apr 28 2022 1 Elementary Concepts 2 Magnetic Circuits 3 Electromagnetic Induction 4 Single Phase Transformers 5 Electrostatics 6 A C fundamentals 7 Single Phase A C circuits 8 Three Phase A C Circuits 9 D C Circuits Appendix

Basic Electrical Engineering Feb 12 2021 The book is written for an undergraduate course on the Basic Electrical Engineering. It provides comprehensive explanation of theory and practice of electrical engineering. It elaborates various aspects of d.c. and a.c. circuit analysis, magnetic circuits, measuring instruments, single phase transformers and various electrical machines. The book starts with the concepts of electric charge, current and potential difference. It explains Kirchhoff's laws, star-delta transformation, mesh analysis and node analysis. It also covers the application of various network theorems in analyzing d.c. circuits. The book incorporates detailed discussion of steady state analysis of single-phase series and parallel a.c. circuits along with the resonance. The book also explains the three phase balanced circuits, three phase power measurement and power factor improvement. The simple techniques and stepwise methods used to explain the phasor diagrams is the feature of the book. The book teaches the theory of various electrical measuring instruments. The book also covers the concept of earthing and electrical safety, which is most important while dealing with the electrical equipment's. The book also includes the discussion of magnetic circuits, self and mutual inductances and magnetic hysteresis. The book further explains the details of single-phase transformers and various electrical machines such as d.c. machines, three phase and single-phase induction motors and synchronous machines. The brief introduction of power system is also incorporated in the book. The book uses plain, lucid language to explain each topic. The book provides the logical method of explaining the various complicated topics and stepwise methods to make the understanding easy. All the chapters are arranged in a proper sequence that permits each topic to build upon earlier studies. The variety of solved examples is the feature of this book which helps to inculcate the knowledge of the basic electrical engineering in the students. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid Jun 30 2022 This book focuses on various challenges, solutions, and emerging technologies in the operation, control, design, optimization, and protection of microgrids in the presence of hybrid renewable energy sources and electric vehicles. This book provides an insight into the potential applications and recent development of different types of renewable energy systems including AC/DC microgrids, RES integration issues with the grid, electric vehicle technology, etc. The book serves as an interdisciplinary platform for the audience working in the focused area to access information related to energy management, modeling, and control. It covers fundamental knowledge, design, mathematical modeling, applications, and practical issues with sufficient design problems and case studies with detailed planning aspects. This book will serve as a guide for researchers, academicians, practicing engineers, professionals, and scientists, as well as for graduate and postgraduate students working in the area of various applications of RES, Electric Vehicles, and AC/DC Microgrid.

Proceedings of International Conference on Communication and Artificial Intelligence Aug 21 2021 This book is a collection of best selected research papers presented at the International Conference on Communication and Artificial Intelligence (ICCAI 2021), held in the Department of Electronics & Communication Engineering, GLA University, Mathura, India, during 19-20 November 2021. The primary focus of the book is on the research information related to artificial intelligence, networks, and smart systems applied in the areas of industries, government sectors, and educational institutions worldwide. Diverse themes with a central idea of sustainable networking solutions are discussed in the book. The book presents innovative work by leading academics, researchers, and experts from industry.

Green Internet of Things and Machine Learning Sep 09 2020 Health Economics and Financing Encapsulates different case studies where green-IoT and machine learning can be used for making significant progress towards improving the quality of life and sustainable environment. The Internet of Things (IoT) is an evolving idea which is responsible for connecting billions of devices that acquire, perceive, and communicate data from their surroundings. Because this transmission of data uses significant energy, improving energy efficiency in IoT devices is a significant topic for research. The green internet of things (G-IoT) makes it possible for IoT devices to use less energy since intelligent processing and analysis are fundamental to constructing smart IoT applications with large data sets. Machine learning (ML) algorithms that can predict sustainable energy consumption can be used to prepare guidelines to make IoT device implementation easier. Green Internet of Things and Machine Learning lays the foundation of in-depth analysis of principles of Green-Internet of Things (G-IoT) using machine learning. It outlines various green ICT technologies, explores the potential towards diverse real-time areas, as well as highlighting various challenges and obstacles towards the implementation of G-IoT in the real world. Also, this book provides insights on how the machine learning and green IoT will impact various applications: It covers the Green-IoT and ML-based smart computing, ML techniques for reducing energy consumption in IoT devices, case studies of G-IoT and ML in the agricultural field, smart farming, smart transportation, banking industry and healthcare. Audience The book will be helpful for research scholars and researchers in the fields of computer science and engineering, information technology, electronics and electrical engineering. Industry experts, particularly in R&D divisions, can use this book as their problem-solving guide.

Basic Electrical & Instrumentation Engineering Aug 28 2019 The book covers all the aspects of Basic Electrical and Instrumentation Engineering for undergraduate course. Various concepts of three phase a.c. circuit analysis with balanced and unbalanced loads, tariff and power factor improvement, single phase and three phase transformers, d.c. machines, single phase and three phase induction motors, alternators, synchronous motors, basics of measuring instruments and transducers are

explained in the book with the help of comprehensive approach. The book starts with explaining the three phase a.c. circuit analysis with balanced and unbalanced loads, concept of transmission, distribution and power system protection. The discussion of tariff and power factor improvement is also added in support. The book further explains single phase and three phase transformers. Then book provides the detailed discussion of d.c. generators and motors. The book also includes the discussion of three phase and single phase induction motors, synchronous generators, synchronous motors and other motors such as stepper motor, brushless d.c. motor and universal motor. The book covers the classification and basic requirements of a measuring instrument. Then the book explains the static and dynamic characteristics and types of errors in measuring instruments. The book provides in depth discussion of electronic multimeter and oscilloscope. The book teaches the details of various types of transducers like resistive, inductive, capacitive, thermoelectric, piezoelectric, photoelectric and Hall effect transducers. The book uses plain, simple and lucid language to explain each topic. Each chapter gives the conceptual knowledge about the topic dividing it in the various sections and subsections. Each chapter provides the detailed explanation of the topic, practical examples and variety of solved problems. The book explains the philosophy of the subject which makes the understanding of the concepts very clear and makes the subject more interesting.

paper-pattern-for-se-electrical-pune-university

Online Library fasika.com on December 5, 2022 Free Download Pdf