

Electrical Engineering Drawing By Kuttappan

Applications of Nanocomposite in Drug Delivery discusses and explores the applications of nanocomposites in the area of drug delivery. Starting with a scientific understanding of drug delivery fundamentals, the book explores the utility of nanocomposites in the area of controlled, transdermal, osteo-articular tuberculosis and stimulus sensitive drug delivery applications. The book intricately details and discusses a variety of methods for their preparation, while also highlighting specific applications of nanocomposites in targeted drug delivery. Discusses nanocomposite and nanotechnology for drug delivery Outlines the mechanisms involved in targeted drug delivery using nanocomposites Includes synthesis methods for nanocomposites used in controlled drug delivery Lists various applications of nanocomposites in drug delivery

The Subject Electrical Design Estimating And Costing Covers An Important Functional Area Of An Electrical Diploma Holder. The Subject Is Taught In Various Forms In Different States. In Some States, It Is Covered Under Two Subjects, Namely, Electrical Design & Drawing And Electrical Estimating & Costing. In Some States It Is Taught As An Integrated Subject But Is Split Into Two Or Three Parts To Be Taught In Different Semesters. To Cater To The Needs Of Polytechnics Of Different States, The Content Of The Course Has Been Developed By Consulting The Curricula Of Various State Boards Of Technical Education In The Country. In Addition To Inclusion Of Conventional Topics, A Chapter On Motor Control Circuits Has Been Included In This Book. This Topic Is Of Direct Relevance To The Needs Of Industries And, As Such, Finds Prominent Place In The Curricula Of Most Of The States Of India. The Book Covers Topics Like Symbols And Standards, Design Of Light And Fan Circuits, Alarm Circuits, Panel Boards Etc. Design Of Electrical Installations For Residential And Commercial Buildings As Well As Small Industries Has Been Dealt With In Detail. In Addition, Design Of Overhead And Underground Transmission And Distribution Lines, Sub-Stations And Design Of Illumination Schemes Have Also Been Included. The Book Contains A Chapter On Motor Circuit Design And A Chapter On Design Of Small Transformers And Chokes. The Book Contains Theoretical Explanations Wherever Required. A Large Number Of Solved Examples Have Been Given To Help Students Understand The Subject Better. The Authors Have Built Up The Course From Simple To Complex And From Known To Unknown. Examples Have Generally Been Taken From Practical Situations. Indeed, Students Will Find This Book Useful Not Only For Passing Examinations But Even More During Their Professional Career.

This book proposes new technologies and discusses future solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 4th International Conference on ICT for Sustainable Development (ICT4SD 2019), held in

Goa, India, on 5–6 July 2019. The conference provided a valuable forum for cutting-edge research discussions among pioneering researchers, scientists, industrial engineers, and students from all around the world. Bringing together experts from different countries, the book explores a range of central issues from an international perspective.

A multicolor edition of Vol.II of A Textbook of Electrical Technology to keep pace with the ever-increasing scope of essential and modern technical information, the syllabi are frequently revised. This often results in compressing established facts to accommodate recent information in the syllabi. Fields of power-electronics and industrial power-conditioners have grown considerably resulting in changed priority of topics related to electrical machines. Switched reluctance-motors tend to threaten the most popular squirrel-cage induction motors due to their increased ruggedness, better performance including controllability and equal ease with which they suit rotary as well as linear-motion-applications.

India was the first and is still the largest exporter of software among developing countries and annually exports nearly half a billion US dollars worth of software. Yet, aside from journalistic accounts, this industry has not so far been studied in depth. Richard Heeks provides the first critical analysis of the development of India's software industry and the impact on it of the recent policy of liberalisation in the areas of trade, state intervention and foreign investment. The study is located at the intersection of three major trends witnessed in the nineties - the increasing importance of computer software in all aspects of business; the mounting global search for outsourcing services and manufacture on the part of multinational companies; and the growing dominance of neo-liberal policy models inspired by the World Bank and the IMF.

How do you define the quality of life of a farmed animal? This timely book addresses the complex and often controversial issues surrounding the assessment and improvement of farm animal welfare. Based on a large, multi-disciplinary EU funded research project called Welfare Quality, it discusses the relevance of science based welfare assessments and the importance of establishing a fruitful dialogue between science and society. An outline is given of the development of a workable welfare assessment system for cattle, pigs and chickens as well as practical ways of improving the animals' quality of life. This book synthesises the huge body of work carried out by the largest ever international network of scientists and stakeholders in Welfare Quality. It describes some of the obstacles encountered and their solution and why particular paths were chosen. It also clearly sets out what still needs to be done and presents selected strategies and technologies (automation, proxy indicators, targeting of risk factors, etc.) designed to ensure the continued improvement of welfare and its assessment. The book provides a valuable source of knowledge on farm animal welfare for social and animal scientists, students, teachers, policy makers, lobby groups and the animal industry.

Grammar in Use Intermediate is a highly successful grammar text known for its clear, concise explanations and innovative format. The Grammar in Use Intermediate Third edition Workbook provides students with further opportunities to practice difficult grammar points and consolidate their understanding of related topics covered in Grammar in Use Intermediate Third edition. It offers a wide range of challenging activities and opportunities to work with grammar structures in meaningful contexts. This edition, without answers, is ideal for classroom use.

This book focuses on the recent advances in the field of orthopaedic biomaterials, with a particular emphasis on their design and fabrication. Biomimetic materials, having similar properties and functions to that of the natural tissue, are becoming a popular choice for making customized orthopaedic implants and bone scaffolds. The acceptability of these materials in the human body depends on the right balance between their mechanical and biological properties. This book provides a comprehensive overview of the state-of-the-art research in this rapidly evolving field. The chapters cover different aspects of multi-functional biomaterials design, and cutting-edge methods for the synthesis and processing of these materials. Advanced manufacturing techniques, like additive manufacturing, used for developing new biomimetic materials are highlighted in the book. This book is a valuable reference for students and researchers interested in biomaterials for orthopaedic applications.

The book highlights the recent research developments in biocomposite design, mechanical performance and utility. It discusses innovative experimental approaches along with mechanical designs and manufacturing aspects of various fibrous polymer matrix composites and presents examples of the synthesis and development of biocomposites and their applications. It is useful for researchers developing biocomposite materials for biomedical and environmental applications.

This book is the first to deal with the important topic of the fire behaviour of fibre reinforced polymer composite materials. The book covers all of the key issues on the behaviour of composites in a fire. Also covered are fire protection materials for composites, fire properties of nanocomposites, fire safety regulations and standards, fire test methods, and health hazards from burning composites.

Electrical Engineering Drawing New Age International

Perestroika, Glasnost and Socialism is a collection of twenty articles written during the past quarter century. The book derives its socialist inspiration from the celebrated essay of Albert Einstein's "Why Socialism? Reaction Strikes Europe." The opening article written on the eve of disintegration of socialist camp gives a graphic picture on how the intellectual classes could engineer a counterrevolution with the help of USA and other developed countries. Liberation of a hundred nationalities from Czarist oppression and creation of a multinational state based on the principle of peaceful coexistence of diverse cultures was the most significant historical contribution by Soviet revolution. India, as a multinational country, has many things to learn from the Soviet experiment as well as the experience of CIS and the erstwhile CMEA countries. Articles on the development experience of India, reproduced in this collection, highlight the unfinished tasks of national liberation in a multinational country, ruled for long by anti-people coalitions of elite classes under the influence of imperialism and global monopoly capital. Experience of the post-Soviet era teaches that completion of national liberation is an essential precondition for the re-envisioning of socialism. Intended as a text for the undergraduate students of electrical engineering, it emphasises on design concept and drawing electrical apparatus based on design approach. To stay at par with the present day technology, AutoCAD® 2014 is used in this book to draw electrical apparatus. It gives a comprehensive view of winding diagrams of different machines, its types along with the assembling technique of various electrical

machines and also the single line representations of the power system with various standard symbols. This book has been prepared to meet the needs of the students in a simpler manner. Every topic has been dealt carefully with necessary explanation and presentation of the material is lucid. This student-friendly text also covers those topics which are required by aspiring engineers in practical situations along with the present industrial requirements and standards. **KEY FEATURES** • Use of plenty of illustrations for explaining the concepts or the principles. • Inclusion of practical problems with their solutions. • Graded exercises and model questions at the end of each chapter. This book presents Proceedings of the International Conference on Intelligent Systems and Networks (ICISN 2021), held at Hanoi in Vietnam. It includes peer-reviewed high-quality articles on intelligent system and networks. It brings together professionals and researchers in the area and presents a platform for exchange of ideas and to foster future collaboration. The topics covered in this book include--foundations of computer science; computational intelligence language and speech processing; software engineering software development methods; wireless communications signal processing for communications; electronics track IoT and sensor systems embedded systems; etc. Twenty-two collected essays on late Anglo-Saxon and Norman history.

This book proposes new technologies and discusses future solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 5th International Conference on ICT for Sustainable Development (ICT4SD 2020), held in Goa, India, on 23-24 July 2020. The conference provided a valuable forum for cutting-edge research discussions among pioneering researchers, scientists, industrial engineers, and students from all around the world. Bringing together experts from different countries, the book explores a range of central issues from an international perspective.

The ability to provide quality juices that contain proper vitamins and nutritional components strongly depends on the processes fruits undergo during the various stages of industrial manufacturing. New technologies have been developed to help ensure the production of quality juices without neglecting safety. Covering both new approaches to traditional issues and innovative processes, *Juice Processing: Quality, Safety and Value-Added Opportunities* addresses various aspects of fruit juice processing and other issues related to the use of by-products generated in this industry. The book begins with a chapter highlighting the importance of the fruit juice sector and describing the general process of fruit juice manufacturing. The text explores current trends in juice production, reviews the main superfruits, and discusses methods for using juice waste by-products, presenting citrus and grape juice as examples. The book covers assessing juice quality and authenticity, and how to evaluate fruit properties using the principles of rheology as well as examining sensory attributes. It also examines alternative techniques for improving fruit juice quality, including both thermal and nonthermal emerging technologies, their fundamentals, and their main effects on important features of fruit juices. Emphasizing product quality, safety, and nutrition, the chapter on juice packaging summarizes the materials, techniques, and technologies currently used as well as novel packaging for increasing shelf life and decreasing environmental impact. The authors address issues concerning spoiling microorganisms and biological and chemical hazards. They also examine public and private standards and regulations, which need to be reworked to keep up with today's food-related concerns.

This is the first book on the market which addresses the need for a pocket-sized guide to neuroanaesthesia, including the immediate and ongoing care of head injured patients.

The inside track to India's most powerful tycoons The eight business maharajas profiled here are among Asia's most powerful industrial tycoons, Their combined turnover runs into billions of rupees, and between them they employ some 650,000 people, while indirectly affecting the lives of millions more. Sip a cup of tea, drive to work, listen to music, build a house and the chances are that in these and a myriad other

ways you are using products that they manufacture or market. By any yardstick, the achievements of these men would rank among the great business stories of our time. How did these men build their enormous empires? What are their management secrets? How did they thrive and prosper even as others failed? What is their vision for the future? Top business writer and industry insider Gita Piramal draws on exhaustive interviews and in-depth research to discover the answers to these and related questions in her profiles of the men who will lead the country's push to become an industrial superpower in the 21st century.

Hybrid materials have currently a great impact on numerous future developments including nanotechnology. This book presents an overview about the different types of materials, clearly structured into synthesis, characterization and applications. A perfect starting point for everyone interested in the field, but also for the specialist as a source of high quality information.

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The Golden age of Indian industry, as it now seems in retrospect, lasted from 1951 to '62. and industrialists of the lime were not afraid to think ahead and plan big. Among the entrepreneurs who led this Industrial resurgence, four were particularly outstanding, G.D. Birla, Walchand Hirachand, Kasturbhai Lalbhai and, J.R.D. Tata. Gita Piramal, author of the acclaimed Business Maharajas, sensitively recreates the Lives and Times of these four titans of industry. She draws upon hitherto untapped sources of information to Sketch her profiles, making htis perhaps the closest Look at these legends this fair. Thought provoking and incisive. Business Legends is a compelling Account of ambition and achievement.

Carbon Nanotube-Reinforced Polymers: From Nanoscale to Macroscale addresses the advances in nanotechnology that have led to the development of a new class of composite materials known as CNT-reinforced polymers. The low density and high aspect ratio, together with their exceptional mechanical, electrical and thermal properties, render carbon nanotubes as a good reinforcing agent for composites. In addition, these simulation and modeling techniques play a significant role in characterizing their properties and understanding their mechanical behavior, and are thus discussed and demonstrated in this comprehensive book that presents the state-of-the-art research in the field of modeling, characterization and processing. The book separates the theoretical studies on the mechanical properties of CNTs and their composites into atomistic modeling and continuum mechanics-based approaches, including both analytical and numerical ones, along with multi-scale modeling techniques. Different efforts have been done in this field to address the mechanical behavior of isolated CNTs and their composites by numerous researchers, signaling that this area of study is ongoing. Explains modeling approaches to carbon nanotubes, together with their application, strengths and limitations

Outlines the properties of different carbon nanotube-based composites, exploring how they are used in the mechanical and structural components Analyzes the behavior of carbon nanotube-based composites in different conditions
Composites in Biomedical Applications presents a comprehensive overview on recent developments in composites and their use in biomedical applications. It features cutting-edge developments to encourage further advances in the field of composite research. Highlights a completely new research theme in polymer-based composite materials Outlines a broad range of different research fields, including polymer and natural fiber reinforcement used in the development of composites for biomedical applications Discusses advanced techniques for the development of composites and biopolymer-based composites Covers fatigue behavior, conceptual design in ergonomics design application, tissue regeneration or replacement, and skeletal bone repair of polymer composites Details the latest developments in synthesis, preparation, characterization, material evaluation, and future challenges of composite applications in the biomedical field This book is a comprehensive resource for advanced students and scientists pursuing research in the broad fields of composite materials, polymers, organic or inorganic hybrid materials, and nano-assembly.

The Wellington Sears Handbook of Industrial Textiles has been a widely used textile industry reference for more than 50 years. Now a completely updated new edition has been published. It was prepared by a team of industrial textile specialists at Auburn University to provide both technical and management personnel with a comprehensive resource on the current technology and applications of today's industrial textiles. All aspects of industrial textiles are covered: man-made and natural materials, manufacturing and finishing methods, and all applications. There are also sections on properties, testing, waste management, computers and automation, and standards and regulations. The appendices provide extensive reference data: properties, specifications, manufacturers and trade names, mathematical equations and measurement units. The text is organized for easy reference, and well illustrated with hundreds of schematics and photographs.

The book presents a comprehensive study of important topics in Mechanics of pure and applied sciences. It provides knowledge of scalar and vector in optimum depth to make the students understand the concepts of Mechanics in simple, coherent and lucid manner and grasp its principles & theory. It caters to the requirements of students of B.Sc. Pass and Honours courses. Students of engineering disciplines and the ones aspiring for competitive exams such as AIME and others, will also find it useful for their preparations.

Electrical Drawing Is An Important Engineering Subject Taught To Electrical/Electronics Engineering Students Both At Degree And Diploma Level Institutions. The Course Content Generally Covers Assembly And Working Drawings Of Electrical Machines And Machine Parts, Drawing Of Electrical Circuits, Instruments And Components. The Contents Of This Book Have Been Prepared By Consulting The Syllabus Of Various State Boards Of Technical Education As Also Of Different Engineering Colleges. This Book Has Nine Chapters. Chapter I Provides Latest Informations About Drawing Sheets, Lettering, Dimensioning, Method Of Projections, Sectional Views Including Assembly And Working Drawings Of Simple Electrical And Mechanical Items With Plenty Of Solved Examples. The Second Chapter Deals With Drawing Of Commonly Used Electrical Instruments, Their Method Of

Connection And Of Instrument Parts. Chapter Iii Deals With Mechanical Drawings Of Electrical Machines And Machine Parts. The Details Include Drawings Of D.C. Machines, Induction Machines, Synchronous Machines, Fractional Kw Motors And Transformers. Chapter Iv Includes Panel Board Wiring Diagrams. The Fifth Chapter Is Devoted To Winding Diagrams Of D.C. And A.C. Machines. Chapter Vi And Vii Include Drawings Of Transmission And Distribution Line Accessories, Supports, Etc. As Also Plant And Substation Layout Diagrams. Miscellaneous Drawing Like Drawings Of Earth Electrodes, Circuit Breakers, Lighting Arresters, Etc. Have Been Dealt With In Chapter Viii. Graded Exercises With Feedback On Reading And Interpreting Engineering Drawings Covering The Entire Course Content Have Been Included In Ix Providing Ample Opportunities To The Learner To Practice On Such Graded Exercises And Receive Feedback. Chapter X Includes Drawings Of Electronic Circuits And Components. This Book, Unlike Some Of The Available Books In The Market, Contains A Large Number Of Solved Examples Which Would Help Students Understand The Subject Better. Explanations Are Very Simple And Easy To Understand. Reference To Norms And Standards Have Been Made At Appropriate Places. Students Will Find This Book Useful Not Only For Passing Examinations But Even More In Reading And Interpreting Engineering Drawings During Their Professional Career.

The human tongue has somewhere up to eight thousand taste buds to inform us when something is sweet, salty, sour, or bitter—or as we usually think of it—delicious or revolting. Tastes differ from one region to the next, and no two people's seem to be the same. But why is it that some people think maple syrup is too sweet, while others can't get enough? What makes certain people love Roquefort cheese and others think it smells like feet? Why do some people think cilantro tastes like soap? John Prescott tackles this conundrum in *Taste Matters*, an absorbing exploration of why we eat and seek out the foods that we do. Prescott surveys the many factors that affect taste, including genetic inheritance, maternal diet, cultural traditions, and physiological influences. He also delves into what happens when we eat for pleasure instead of nutrition, paying particularly attention to affluent Western societies, where, he argues, people increasingly view food selection as a sensory or intellectual pleasure rather than a means of survival. As obesity and high blood pressure are on the rise along with a number of other health issues, changes in the modern diet are very much to blame, and Prescott seeks to answer the question of why and how our tastes often lead us to eat foods that are not the best for our health. Compelling and accessible, this timely book paves the way for a healthier and more sustainable understanding of taste.

Food safety awareness is at an all time high, new and emerging threats to the food supply are being recognized, and consumers are eating more and more meals prepared outside of the home. Accordingly, retail and foodservice establishments, as well as food producers at all levels of the food production chain, have a growing responsibility to ensure that proper food safety and sanitation practices are followed, thereby, safeguarding the health of their guests and customers. Achieving food safety success in this changing environment requires going beyond traditional training, testing, and inspectional approaches to managing risks. It requires a better understanding of organizational culture and the human dimensions of food safety. To improve the food safety performance of a retail or foodservice establishment, an organization with thousands of employees, or a local community, you

must change the way people do things. You must change their behavior. In fact, simply put, food safety equals behavior. When viewed from these lenses, one of the most common contributing causes of food borne disease is unsafe behavior (such as improper hand washing, cross-contamination, or undercooking food). Thus, to improve food safety, we need to better integrate food science with behavioral science and use a systems-based approach to managing food safety risk. The importance of organizational culture, human behavior, and systems thinking is well documented in the occupational safety and health fields. However, significant contributions to the scientific literature on these topics are noticeably absent in the field of food safety. This book focuses on the application of nanotechnology in medicine and drug delivery, including diagnosis and therapy. Nanomedicine can contribute to the development of a personalized medicine both for diagnosis and therapy. By interacting with biological molecules at nanoscale level, nanotechnology opens up an immense field of research and applications. Interactions between artificial molecular assemblies or nanodevices and biomolecules can be understood both in the extracellular medium and inside human cells. Operating at nanoscale allows exploitation of physical properties different from those observed at microscale, such as the volume to surface area ratio. A number of clinical applications of nanobiotechnology, such as disease diagnosis, target-specific drug delivery, and molecular imaging are being investigated. Some promising new products are also undergoing clinical trials. Such advanced applications of this approach to biological systems will undoubtedly transform the foundations of diagnosis, treatment, and prevention of disease in the future. Nanomedicine sales reached \$16 billion in 2015, with a minimum of \$3.8 billion in nanotechnology R&D being invested each year. Global funding for emerging nanotechnology increased by 45% per year in recent years, with product sales exceeding \$1 trillion in 2013. As the nanomedicine industry continues to grow, it is expected to have a significant impact on the global economy. This book provides clear, colorful and simple illustrations, tables, and case studies to clearly convey the content to a general audience and reader. This book also discusses the development of nanobiomaterials from biogenic (biological sources) systems for healthcare and disease therapies. This book, therefore, is useful for researchers and academicians in the fields of nanotechnology, medicine, nano-biotechnology and pharmacology. This book provides understanding of raw materials, manufacturing and biomedical applications of different polymeric and natural composites such as drug delivery, growth factor delivery, orthopedics, dentistry and wound dressing. Animal Agriculture: Sustainability, Challenges and Innovations discusses the land-based production of high-quality protein by livestock and poultry and how it plays an important role in improving human nutrition, growth and health. With exponential growth of the global population and marked rises in meat consumption per capita, demands for animal-source protein are expected to increase 72% between 2013 and 2050. This raises concerns about the sustainability and environmental impacts of animal agriculture. An attractive solution to meeting increasing needs for animal products and mitigating undesirable effects of agricultural practices is to enhance the efficiency of animal growth, reproduction, and lactation. Currently, there is no resource that offers specific knowledge of both animal science and technology, including biotechnology for the sustainability of animal agriculture for the expanding global demand of food in the face of diminishing resources. This book fills that gap, giving readers all the necessary

information on important issues facing modern animal agriculture, namely its sustainability, challenges and innovative solutions. Integrates new knowledge in animal breeding, biotechnology, nutrition, reproduction and management Addresses the urgent issue of sustainability in modern animal agriculture Provides practical solutions on how to solve the current and future problems that face animal agriculture worldwide

This book contains over 400 offered papers which were presented at the 63rd International Congress of Meat Science and Technology, held in Cork, Ireland, from 13-18 August, 2017. Under the theme of nurturing locally, growing globally, areas covered in the congress included meat sustainability and the role of the of meat science in a challenging global environment, genetics and genomics, the science of meat quality, technological demands in meat processing from an Asian perspective, international best practice in animal welfare, scientific advances underpinning meat safety, emerging technologies in meat processing, meat science and impact, consumer aspects, meat biochemistry, advancements in meat packaging and the congress ended with a session on meat and health, with focus on sustaining healthy protein sources. This year also included a session dedicated to addressing specific hot topics of importance to the industry and meat scientists. These proceedings reflect the truly global nature of meat research and provide an insight into current research issues for the industry.

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