
Reading free Fundamentals of electrical engineering by ashfaq husain Copy

this book is intended to serve as a textbook for course switchgear and protection for b tech b e degree students of electrical engineering it will also serve as a text reference for the students of diploma in electrical engineering the common topics included in the syllabi of almost all engineering institutions in india are covered in this book tackling the issue of water and wastewater treatment nowadays requires novel approaches to ensure that sustainable development can be achieved water and wastewater treatment should not be seen only as an end of pipe solution but instead the approach should be more holistic and lead to a more sustainable process this requires the integration of various methods processes to obtain the most optimized design integrated and hybrid process technology for water and wastewater treatment discusses the state of the art development in integrated and hybrid treatment processes and their applications to the treatment of a vast variety of water and wastewater sources the approaches taken in this book are categorized as i resources recovery and consumption ii optimal performance iii physical and environmental footprints iv zero liquid discharge concept and are v regulation driven through these categories readers will see how such an approach could benefit the water and wastewater industry each chapter discusses challenges and prospects of an integrated treatment process in achieving sustainable development this book serves as a platform to provide ideas and to bridge the gap between laboratory scale research and practical industry application includes comprehensive coverage on integrated and hybrid technology for water and wastewater treatment takes a new approach in looking at how water and wastewater treatment contributes to sustainable development provides future direction of research in sustainable water and wastewater treatment nanotechnology based sustainable alternatives for the management of plant diseases addresses the power of sustainable nanomaterials for plant and food protection

the book highlights dangers arising from bacteria fungi viruses insects seeds plants fruits and food production and summarizes new and sustainable strategies it places a particular focus on plant pathogen control and in the food packaging sector in agri food applications the control of plant pathogens in plants and in food has been conventionally made by adding chemical preservatives and by using thermal processing but sustainable nanotechnology can be a power tool to aid in this complex set of challenges advances in materials science have led to the rapid development of nanotechnology that has great potential for improving food safety as a powerful tool for the delivery and controlled release of natural antimicrobials analyzes and lays out information related to sustainable strategies taking a nano based approach to the management of plant diseases and biotic damage on fresh food presents the latest discoveries and practical applications of nanotechnology based sustainable plant protection strategies to combat dangerous microorganisms and improve the shelf life of food assesses the major challenges of manufacturing nanotechnology based pesticides on a mass scale nanotechnology provides an innovative platform for drug delivery and antiviral actions this book discusses the utilization of nano based formulations for the control of viral agents the antiviral potential of green synthesized silver chitosan nanoparticles encapsulating curcumin photoinduced antiviral carbon nanohorns and the role of carbon based materials like fullerenes and carbon nanotubes in the repression of viral antigens are explained the book also covers nanomaterial based solutions for sars cov 2 and other viral infections features explains theory and practical applications of nanomaterials as antiviral agents reviews upscaling of nanomaterials from laboratory to fabrication stage illustrates nanocurcumin silver nanoparticles and carbon nanoparticles for biomedical applications highlights role of nanotechnology in effectively combating viral infections and pandemics includes case studies of specific pharma companies this book is aimed at researchers graduate students in materials science microbiology and virology and pharmaceutical sciences written in a very simple language this book gives an insight into the life of 50 greatest freedom fighters of india an interesting book for all age groups the book revives the memories of the great struggle for independence plants face a wide range of environmental challenges which are expected to

become more intense as a result of global climate change plant soil interactions play an important role in the functioning of ecosystems soil properties represent a strong selection pressure for plant diversity and influence the structure of plant communities and biodiversity the complexity of plant soil interactions has recently been studied by developing a trait based approach in which responses and effects of plants on soil environment are quantified and modelled this fundamental research on plant soil interaction in ecosystems is essential to transpose knowledge of functional ecology to environmental management frontiers in plant soil interaction molecular insights into plant adaptation will address topics that provide advances in understanding plant responses to soil conditions through the integration of genetic molecular and plant level studies of diverse biotic and abiotic stresses under field and laboratory conditions this book will be beneficial to students and researchers working on stress physiology and stress proteins genomics proteomics genetic engineering and other fields of plant soil interactions frontiers in plant soil interaction will also help scientists explore new horizons in their area of research brings together global leaders working in the area of plant environment interactions and shares their research findings presents current and future scenarios for the management of stressors illustrates the central role for plant soil interactions in applying basic research to address current and future challenges to humans this combo collection set of 3 books includes all time bestseller books this anthology contains 9789353220952 my transportation for life 9789353220952 my transportation for life 9789353220952 my transportation for life emerging contaminants ecs are predominantly unregulated anthropogenic chemicals that occur in air soil water food and plant animal tissues in trace concentrations ecs are persistent in the environment capable of perturbing the physiology of target receptors and therefore are increasingly regarded as a subject of concern this volume aims to enhance understanding of emerging contaminants effects on plants and the environment and to highlight and address the need of sustainable and eco friendly approaches in mitigating and remediating the effects of ecs the book comprises chapters from diverse areas dealing with biotechnology microbial technology nanotechnology molecular biology remediation and more this volume will be useful to remediation practitioners

researchers regulators and graduate students this book is intended to serve as a textbook for be b tech students of electrical electronics computer instrumentation control and communication engineering it will also serve as a text reference for the students of diploma in engineering amie gate upsc engineering services ias candidate would also find the book extremely useful subject matter in each chapter developed systematically from first principles written in a very simple language simple and clear explanation of concepts large number of carefully selected worked examples most simplified methods used step by step procedures given for solving problems ideally suited for self study fungal cell factories for sustainable nanomaterials productions and agricultural applications explores the mycogenic synthesis of many metal nanoparticles including processing processes environmental protection and future perspectives nanomaterials including silver gold palladium copper zinc selenium titanium dioxide metal sulphide cellulose have been formed by major fungal genes such as mushrooms fusarium trichoderma endophytic fungi and yeast in addition to lichens understanding the exact process involved in the synthesis of nanoparticles and the effects of various factors on the reduction of metal ions can help to improve low cost strategies for the synthesis and extraction of nanoparticles other sections focus on a new framework for the production of nano antimicrobial the use of myconanoparticles against plant diseases post harvest antibiotics mycotoxin control and plant pests in addition to certain animal pathogens myconanomaterials are well developed with great potential and promise for advanced diagnostics biosensors precision farming and targeted smart delivery systems assesses the impact of a variety of copper based nanostructures on agri food sectors addressing the most relevant knowledge gaps explores the opportunities that myconanotechnology can provide for industrial applications explains the major challenges of applying myconanotechnology at an industrial scale profiles of 102 eminent muslims of india from various fields large scale chemical fertilizer application causes irreparable damage to soil structure mineral cycles soil microbial flora plants and other food chains across ecosystems culminating in heritable mutations in future generations of consumers a better way forward is the use of nanofertilizers to focus on macro elements n p k as switching to nanofertilizers may result in large environmental benefits by

replacing the majority of these nutrients furthermore the biosynthesis of nanomaterials using bacteria algae yeast fungus actinomycetes and plants has opened up a new avenue of research in the production of inorganic nanoparticles as ecologically friendly fertilizers nanofertilizers should also attain increased efficiency because of a several fold increase in the surface to volume ratio of nano forms of nutrients and their suitability for foliar application where environmental losses are further reduced nanostructured fertilizers can also improve nutrient use efficiency through strategies such as targeted distribution and progressive or controlled release as they can precisely release their active molecules in response to environmental cues and biological demands recent research shows nanofertilizers can increase agricultural productivity by speeding up seed germination seedling growth photosynthetic activity nitrogen metabolism and carbohydrate and protein synthesis the potential agricultural benefits of nanofertilizers their modes of action and the fate of nanomaterials in soil are all discussed in this book it also covers nanofertilizer formulation and delivery applications uptake translocation and their fate in plants as well as their impact on plant physiology and metabolism nutrient nanoformulation is a valuable method that has the potential to alter the agricultural sector and provide solutions to current and future concerns for sustainable and climate sensitive crops nanodiamonds applications in biology and nanoscale medicine highlights the translation of nanodiamonds toward clinical relevance and medical applications integrating a spectrum of internationally recognized experts currently developing these technologies this book fits as a cornerstone of this exciting field these include contributions from clinician scientists working at the interface of medicine and nanotechnologies which discuss the critical and requisite properties of nanomaterials in a concise and cohesive manner nanodiamonds applications in biology and nanoscale medicine provides a multidisciplinary overview of nanodiamonds and their uses for scientific engineering and clinical audiences alike climate change and environmental pollution remain two primary areas of concern in today's world these detrimental influences continue to have a strong impact on various aspects of humanity specifically public health in tropical regions researchers have seen neglected tropical diseases ntds affected by climate change and anthropogenic impacts climate change and

anthropogenic impacts on health in tropical and subtropical regions is a pivotal reference source that provides vital research on the association of environmental pollutants and global warming with viruses in tropical regions while highlighting topics such as pathogenicity travel impact and economic impacts this publication explores the developments and trends in these areas of medicine and ecology as well as prevention strategies to be used for educational and sensitization purposes this book is ideally designed for doctors medical practitioners ecologists epidemiologists environmentalists world health organizations researchers biologists policymakers academicians and students mechanics of aircraft structures explore the most up to date overview of the foundations of aircraft structures combined with a review of new aircraft materials the newly revised third edition of mechanics of aircraft structures delivers a combination of the fundamentals of aircraft structure with an overview of new materials in the industry and a collection of rigorous analysis tools into a single one stop resource perfect for a one semester introductory course in structural mechanics and aerospace engineering the distinguished authors have created a textbook that is also ideal for mechanical or aerospace engineers who wish to stay updated on recent advances in the industry the new edition contains new problems and worked examples in each chapter and improves student accessibility a new chapter on aircraft loads and new material on elasticity and structural idealization form part of the expanded content in the book readers will also benefit from the inclusion of a thorough introduction to the characteristics of aircraft structures and materials including the different types of aircraft structures and their basic structural elements an exploration of load on aircraft structures including loads on wing fuselage landing gear and stabilizer structures an examination of the concept of elasticity including the concepts of displacement strain and stress and the equations of equilibrium in a nonuniform stress field a treatment of the concept of torsion perfect for senior undergraduate and graduate students in aerospace engineering mechanics of aircraft structures will also earn a place in the libraries of aerospace engineers seeking a one stop reference to solidify their understanding of the fundamentals of aircraft structures and discover an overview of new materials in the field 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 taking into consideration that the agricultural industry is greatly dependent on pesticide chemicals to deal with the damage caused due to pests this new volume details the challenges along with the bioremediation and remediation measures such as the use of beneficial microorganisms polymeric nanocomposites for nanoremediation phytoremediation and more it looks at pesticide contamination from agricultural activities in a variety of different environs and a selection of sustainable and eco friendly remediation approaches it provides a spectrum of concepts ideas and knowledge related to the detrimental actions of pesticides on the environment directly and on human beings indirectly and provides insight into sustainable and advanced pesticide remediation technology it fills a gap in the available literature in this field and will provide valuable for academicians researchers agriculturists and students this book focuses on the recent progress of nanotechnology with emphasis on the interaction between nanoparticles and plants on the cellular level it is devoted to understanding the pathways of nanomaterials entry into plant cell and their influence on cellular organelle processes and influence on crop yield it consists of 16 chapters grouped in 3 parts part i cellular mechanisms part ii cellular macromolecules and part iii implications of nanomaterials chapters present the plant response to nanomaterial applications

including morphological physiochemical and anatomical changes and their effect on plant growth and productivity the book discusses the mechanisms of absorbance and translocation of nanoparticles and their interaction with the plant cellular biochemical compounds and organelles it presents the current perspective of nanomaterials influence on cellular processes which include photosynthesis photorespiration and pigment synthesis and accumulation in addition it provides current understanding of the impact of nanomaterials on cellular macromolecules including carbohydrates lipids nucleic acids proteins hormones and antioxidant defense activities collectively these processes and biochemical compounds have implications on crop yield chapters are written by globally recognized scientists and subjected to a rigorous review process to ensure quality presentation and scientific precision chapter begins with an introduction that covers similar contexts and includes a detailed discussion of the topic accompanied by high quality color images diagrams and relevant details and concludes with recommendations for future study directions chapter impact of nanomaterials on plant secondary metabolism is available open access under a creative commons attribution 4 0 international license via link springer.com generative artificial intelligence is rapidly advancing with many state of the art performances on computer vision speech processing and natural language processing tasks generative adversarial networks and neural diffusion models can generate high quality synthetic images of human faces artworks and coherent essays on different topics generative models are also transforming medical artificial intelligence given their potential to learn complex features from medical imaging and healthcare data hence computer aided diagnosis and healthcare are benefiting from medical artificial intelligence and generative artificial intelligence this book presents the recent advances in generative models for medical artificial intelligence it covers many applications of generative models for medical image data including volumetric medical image segmentation data augmentation mri reconstruction and modeling of spatiotemporal medical data this book highlights the recent advancements in generative artificial intelligence for medical and healthcare applications using medical imaging and clinical and electronic health records data furthermore the book comprehensively presents the concepts and applications of

deep learning based artificial intelligence methods such as generative adversarial networks convolutional neural networks and vision transformers it also presents a quantitative and qualitative analysis of data augmentation and synthesis performances of generative artificial intelligence models this book is the result of the collaborative efforts and hard work of many minds who contributed to it and illuminated the vast landscape of medical artificial intelligence the book is suitable for reading by computer science researchers medical professionals healthcare informatics and medical imaging researchers interested in understanding the potential of artificial intelligence in healthcare it serves as a compass for navigating the artificial intelligence driven healthcare landscape

a novel by american author jack london white fang was first published in outing magazine in 1906 much of white fang is written from the viewpoint of the titular canine character enabling london to explore how animals view their world and how they view humans white fang examines the violent world of wild animals and the equally violent world of humans the book also explores complex themes including morality and redemption

chandrashekhar azad s short and chequered life of a revolutionary is remembered in the annals of the history of india s freedom struggle not merely for his indomitability in the face of odds but for the human values he cherished in today s world with the edifice of every conceivable value crumbling all around us azad s life offers a paradigm for the redemption of a generation resigned to shallow ideals

adversity came a dime a dozen to this village youth born to poor parents rich in morality and humaneness it s the roots that determine the actions of a person and actions his destiny at a time when we seem to be taking our freedom for granted azad s biography is a reminder of the blood and toil that went into securing it the road to preservation of freedom must be hemmed with respect for what we have for being fortunate to be able to breathe in free air the crucial caveat embedded in azad s biography is that we face a far greater threat from the enemies within than from enemies without

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for the redemption of a generation resigned to shallow ideals adversity came a dime a dozen to this village youth born to poor parents rich in morality and humaneness it s the roots that determine the actions of a person and actions his destiny at a time when we seem to be taking our freedom for granted azad s biography is a reminder of the blood and toil that went into securing it the road to preservation of freedom must be hemmed with respect for what we have for being fortunate to be able to breathe in free air the crucial caveat embedded in azad s biography is that we face a far greater threat from the enemies within than from enemies without biography of chandrashekhar azad by bharat bhushan biography of chandrashekhar azad provides a detailed account of the life of chandrashekhar azad a prominent indian freedom fighter known for his fearless commitment to the cause of independence bharat bhushan offers insights into azad s revolutionary journey key aspects of the book biography of chandrashekhar azad revolutionary life bharat bhushan chronicles chandrashekhar azad s life from his early involvement in the freedom struggle to his leadership in the hindustan socialist republican association hsra political ideals the book explores azad s ideological beliefs and his unwavering dedication to the principles of liberty and justice legacy of bravery readers gain an understanding of chandrashekhar azad s enduring legacy as a symbol of courage and sacrifice in india s fight for freedom bharat bhushan is an author and historian known for his research on indian freedom fighters in biography of chandrashekhar azad he provides a comprehensive account of the life and contributions of this iconic revolutionary this multisite ethnography examines the construction of personal and group identity in the diaspora by emigrants from hyderabad india settling in pakistan the uk canada the us australia and the gulf states of the middle east at the end of the 20th century multiscale simulations and mechanics of biological materials a compilation of recent developments in multiscale simulation and computational biomaterials written by leading specialists in the field presenting the latest developments in multiscale mechanics and multiscale simulations and offering a unique viewpoint on multiscale modelling of biological materials this book outlines the latest developments in computational biological materials from atomistic and molecular scale simulation on dna proteins and nano particles to meoscale soft matter modelling

of cells and to macroscale soft tissue and blood vessel and bone simulations traditionally computational biomaterials researchers come from biological chemistry and biomedical engineering so this is probably the first edited book to present work from these talented computational mechanics researchers the book has been written to honor professor wing liu of northwestern university usa who has made pioneering contributions in multiscale simulation and computational biomaterial in specific simulation of drug delivery at atomistic and molecular scale and computational cardiovascular fluid mechanics via immersed finite element method key features offers a unique interdisciplinary approach to multiscale biomaterial modelling aimed at both accessible introductory and advanced levels presents a breadth of computational approaches for modelling biological materials across multiple length scales molecular to whole tissue scale including solid and fluid based approaches a companion website for supplementary materials plus links to contributors websites wiley com go li multiscale spiritual and inspirational biography pests control and acarology presents novel methods adopted in pest management for cereal crops and fruit trees each chapter was written by experts in their respective areas and provides a rigorous review and outline of current trends and future needs to expedite progress in the field the book was structured in three sections as follows the first section introduces the topics and defines concepts of integrated pest management and biological control the second section includes two chapters the first one discusses a new trap barrier system for rodent pest control in rice and the second one presents methods used in the management of stem borers in cereal crops the third section presents various topics within the area of acarology system assurances modeling and management updates on system assurance and performance methods using advanced analytics and understanding of software reliability growth modeling from today s debugging team s point of view along with information on preventive and predictive maintenance and the efficient use of testing resources the book presents the rapidly growing application areas of systems and software modeling including intelligent synthetic characters human machine interface menu generators user acceptance analysis picture archiving and software systems students research scholars academicians scientists and industry practitioners will benefit from the

book as it provides better insights into modern related global trends issues and practices provides software reliability modeling simulation and optimization offers methodologies tools and practical applications of reliability modeling and resources allocation presents cost modeling and optimization associated with complex systems multifunctional hybrid nanomaterials for sustainable agrifood and ecosystems shows how hybrid nanomaterials hnms are being used to enhance agriculture food and environmental science the book discusses the synthesis and characterization of hnms before exploring agrifoods and environmental functions it shows how novel hnms are being used for the detection and separation of heavy metal ions for destroying and sensing of insecticides in managed release fertilizer and pesticide formulations plant protection plant promotions purification detection and to control mycotoxins further the book describes the use of silica based total nanosystems carbon nanotubes nanocellulose based and polymer nanohybrids for agricultural and biological applications this book is an important reference source for materials scientists engineers and food scientists who want to gain a greater understanding on how multifunctional nanomaterials are being used for a range of agricultural and environmental applications outlines the major nanomaterial types that are being used in agriculture explains why the properties of multifunctional nanomaterials are particularly efficient for use in agriculture assesses the major challenges of using multifunctional nanomaterials on an industrial scale this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of chandrashekhar azad the life and times of bhagat singh the life and times of subhash chandra bose this combo collection set of 3 books includes all time bestseller books this anthology contains bhagat singh jail diary the life and times of bhagat singh the life and times of subhash chandra bose this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of birsa munda the life and times of bhagat singh the life and times of chandrashekhar azad this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of sardar vallabhbai patel the life and times of subhash chandra bose the life and times of chandrashekhar azad this book highlights important aspects of food biotechnology it is very thoughtfully divided into five

sections the first section introduces the readers to food biotechnology and discusses functional foods use of plant and animal biotechnology in improving food quality the second section deals with food microbiology and includes topics such as application of microbial surfactants use of probiotics beneficial microorganisms used in food industry etc the third section describes important macro and micromolecules in foods it includes chapters on food enzymes gluten free formulations use of biopolymers biofortification of food and other important topics the next section discusses novel technologies such as use of nanotechnology in food industry reverse micelle techniques genome editing in food crops etc the book culminates with a section on food quality and management it describes important topics about biosafety and regulatory issues in food biotechnology this book is meant for students researchers and course instructors in food science food technology and biotechnology it is also useful for industry experts in the area of food technology microalgae cultivation recovery of compounds and applications supports the scientific community professionals and enterprises that aspire to develop industrial and commercialized applications of microalgae cultivation topics covered include conventional and emerging cultivation and harvesting techniques of microalgae design transport phenomena models of microalgae growth in photobioreactors and the catalytic conversion of microalgae a significant focus of the book illustrates how marine algae can increase sustainability in industries like food agriculture biofuel and bioprocessing among others this book is a complete reference for food scientists technologists and engineers working in the bioresource technology field it will be of particular interest to academics and professionals working in the food industry food processing chemical engineering and biotechnology explores emerging technologies for the clean recovery of antioxidants from microalgae includes edible oil and biofuels production functional food cosmetics and animal feed applications discusses microalgae use in sustainable agriculture and wastewater treatment considers the techno economic aspects of microalgae processing for biofuel chemicals pharmaceuticals and bioplastics

Electrical Engineering Principles 1987

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Switchgear and Protection 2021-08-25

tackling the issue of water and wastewater treatment nowadays requires novel approaches to ensure that sustainable development can be achieved water and wastewater treatment should not be seen only as an end of pipe solution but instead the approach should be more holistic and lead to a more sustainable process this requires the integration of various methods processes to obtain the most optimized design integrated and hybrid process technology for water and wastewater treatment discusses the state of the art development in integrated and hybrid treatment processes and their applications to the treatment of a vast variety of water and wastewater sources the approaches taken in this book are categorized as i resources recovery and consumption ii optimal performance iii physical and environmental footprints iv zero liquid discharge concept and are v regulation driven through these categories readers will see how such an approach could benefit the water and wastewater industry each chapter discusses challenges and prospects of an integrated treatment process in achieving sustainable development this book serves as a platform to provide ideas and to bridge the gap between laboratory scale research and practical industry application includes comprehensive coverage on integrated and hybrid technology for water and wastewater treatment takes a new approach in looking at how water and wastewater treatment contributes to sustainable development provides future direction of research in sustainable water and wastewater treatment

Integrated and Hybrid Process Technology for Water and Wastewater Treatment 2021-10-23

nanotechnology based sustainable alternatives for the management of plant diseases addresses the power of sustainable nanomaterials for plant and food protection the book highlights dangers arising from bacteria fungi viruses insects seeds plants fruits and food production and summarizes new and sustainable strategies it places a particular focus on plant pathogen control and in the food packaging sector in agri food applications the control of plant pathogens in plants and in food has been conventionally made by adding chemical preservatives and by using thermal processing but sustainable nanotechnology can be a power tool to aid in this complex set of challenges advances in materials science have led to the rapid development of nanotechnology that has great potential for improving food safety as a powerful tool for the delivery and controlled release of natural antimicrobials analyzes and lays out information related to sustainable strategies taking a nano based approach to the management of plant diseases and biotic damage on fresh food presents the latest discoveries and practical applications of nanotechnology based sustainable plant protection strategies to combat dangerous microorganisms and improve the shelf life of food assesses the major challenges of manufacturing nanotechnology based pesticides on a mass scale

Nanotechnology-Based Sustainable Alternatives for the Management of Plant Diseases 2023-02-08

nanotechnology provides an innovative platform for drug delivery and antiviral actions this book discusses the utilization of nano based formulations for the control of viral agents the antiviral potential of green synthesized silver chitosan nanoparticles encapsulating curcumin photoinduced antiviral carbon nanohorns and the role of carbon based materials like fullerenes and carbon

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Nanotechnology Platforms for Antiviral Challenges 2021-01-01

written in a very simple language this book gives an insight into the life of 50 greatest freedom fighters of india an interesting book for all age groups the book revives the memories of the great struggle for independence

50 Great Freedom Fighters 2021-05-01

plants face a wide range of environmental challenges which are expected to become more intense as a result of global climate change plant soil interactions play an important role in the functioning of ecosystems soil properties represent a strong selection pressure for plant diversity and influence the structure of plant communities and biodiversity the complexity of plant soil interactions has recently been studied by developing a trait based approach in which responses and effects of plants on soil environment are quantified and modelled this fundamental research on plant soil interaction in ecosystems is essential to transpose knowledge of functional ecology to environmental management frontiers in plant soil interaction molecular insights into plant adaptation will address topics that provide advances in understanding plant responses to soil conditions through the integration of genetic molecular and plant level studies of diverse biotic and abiotic stresses under field and laboratory conditions this book will be beneficial to students

and researchers working on stress physiology and stress proteins genomics proteomics genetic engineering and other fields of plant soil interactions frontiers in plant soil interaction will also help scientists explore new horizons in their area of research brings together global leaders working in the area of plant environment interactions and shares their research findings presents current and future scenarios for the management of stressors illustrates the central role for plant soil interactions in applying basic research to address current and future challenges to humans

Frontiers in Plant–Soil Interaction *12-08-22*

this combo collection set of 3 books includes all time bestseller books this anthology contains 9789353220952 my transportation for life 9789353220952 my transportation for life 9789353220952 my transportation for life

Histories of the Indian Freedom Struggle *2023-02-16*

emerging contaminants ecs are predominantly unregulated anthropogenic chemicals that occur in air soil water food and plant animal tissues in trace concentrations ecs are persistent in the environment capable of perturbing the physiology of target receptors and therefore are increasingly regarded as a subject of concern this volume aims to enhance understanding of emerging contaminants effects on plants and the environment and to highlight and address the need of sustainable and eco friendly approaches in mitigating and remediating the effects of ecs the book comprises chapters from diverse areas dealing with biotechnology microbial technology nanotechnology molecular biology remediation and more this volume will be useful to remediation practitioners researchers regulators and graduate students

Emerging Contaminants and Plants *2022-10-26*

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computer instrumentation control and communication engineering it will also serve as a text reference for the students of diploma in engineering amie gate upsc engineering services ias candidate would also find the book extremely useful subject matter in each chapter developed systematically from first principles written in a very simple language simple and clear explanation of concepts large number of carefully selected worked examples most simplified methods used step by step procedures given for solving problems ideally suited for self study

Networks and Systems 2009

fungal cell factories for sustainable nanomaterials productions and agricultural applications explores the mycogenic synthesis of many metal nanoparticles including processing processes environmental protection and future perspectives nanomaterials including silver gold palladium copper zinc selenium titanium dioxide metal sulphide cellulose have been formed by major fungal genes such as mushrooms fusarium trichoderma endophytic fungi and yeast in addition to lichens understanding the exact process involved in the synthesis of nanoparticles and the effects of various factors on the reduction of metal ions can help to improve low cost strategies for the synthesis and extraction of nanoparticles other sections focus on a new framework for the production of nano antimicrobial the use of myconanoparticles against plant diseases post harvest antibiotics mycotoxin control and plant pests in addition to certain animal pathogens myconanomaterials are well developed with great potential and promise for advanced diagnostics biosensors precision farming and targeted smart delivery systems assesses the impact of a variety of copper based nanostructures on agri food sectors addressing the most relevant knowledge gaps explores the opportunities that myconanotechnology can provide for industrial applications explains the major challenges of applying myconanotechnology at an industrial scale

Fungal Cell Factories for Sustainable Nanomaterials Productions and Agricultural Applications 2023-11-28

profiles of 102 eminent muslims of india from various fields

Great Muslims of undivided India 2009-11-25

large scale chemical fertilizer application causes irreparable damage to soil structure mineral cycles soil microbial flora plants and other food chains across ecosystems culminating in heritable mutations in future generations of consumers a better way forward is the use of nanofertilizers to focus on macro elements n p k as switching to nanofertilizers may result in large environmental benefits by replacing the majority of these nutrients furthermore the biosynthesis of nanomaterials using bacteria algae yeast fungus actinomycetes and plants has opened up a new avenue of research in the production of inorganic nanoparticles as ecologically friendly fertilizers nanofertilizers should also attain increased efficiency because of a several fold increase in the surface to volume ratio of nano forms of nutrients and their suitability for foliar application where environmental losses are further reduced nanostructured fertilizers can also improve nutrient use efficiency through strategies such as targeted distribution and progressive or controlled release as they can precisely release their active molecules in response to environmental cues and biological demands recent research shows nanofertilizers can increase agricultural productivity by speeding up seed germination seedling growth photosynthetic activity nitrogen metabolism and carbohydrate and protein synthesis the potential agricultural benefits of nanofertilizers their modes of action and the fate of nanomaterials in soil are all discussed in this book it also covers nanofertilizer formulation and delivery applications uptake translocation and their fate in plants as well as their impact on plant physiology and metabolism nutrient nanoformulation is a valuable method that has the potential to alter the agricultural sector and provide solutions to current and future concerns for sustainable and climate sensitive crops

Nanofertilizers for Sustainable Agroecosystems 2020-01-31

nanodiamonds applications in biology and nanoscale medicine highlights the translation of nanodiamonds toward clinical relevance and medical applications integrating a spectrum of internationally recognized experts currently developing these technologies this book fits as a cornerstone of this exciting field these include contributions from clinician scientists working at the interface of medicine and nanotechnologies which discuss the critical and requisite properties of nanomaterials in a concise and cohesive manner nanodiamonds applications in biology and nanoscale medicine provides a multidisciplinary overview of nanodiamonds and their uses for scientific engineering and clinical audiences alike

Cyber Security and Digital Forensics 2021-09-28

climate change and environmental pollution remain two primary areas of concern in today's world these detrimental influences continue to have a strong impact on various aspects of humanity specifically public health in tropical regions researchers have seen neglected tropical diseases (NTDs) affected by climate change and anthropogenic impacts climate change and anthropogenic impacts on health in tropical and subtropical regions is a pivotal reference source that provides vital research on the association of environmental pollutants and global warming with viruses in tropical regions while highlighting topics such as pathogenicity travel impact and economic impacts this publication explores the developments and trends in these areas of medicine and ecology as well as prevention strategies to be used for educational and sensitization purposes this book is ideally designed for doctors medical practitioners ecologists epidemiologists environmentalists world health organizations researchers biologists policymakers academicians and students

Nanodiamonds 2020-04-24

mechanics of aircraft structures explore the most up to date overview of the foundations of aircraft structures combined with a review of new aircraft materials the newly revised third edition of mechanics of aircraft structures delivers a combination of the fundamentals of aircraft structure with an overview of new materials in the industry and a collection of rigorous analysis tools into a single one stop resource perfect for a one semester introductory course in structural mechanics and aerospace engineering the distinguished authors have created a textbook that is also ideal for mechanical or aerospace engineers who wish to stay updated on recent advances in the industry the new edition contains new problems and worked examples in each chapter and improves student accessibility a new chapter on aircraft loads and new material on elasticity and structural idealization form part of the expanded content in the book readers will also benefit from the inclusion of a thorough introduction to the characteristics of aircraft structures and materials including the different types of aircraft structures and their basic structural elements an exploration of load on aircraft structures including loads on wing fuselage landing gear and stabilizer structures an examination of the concept of elasticity including the concepts of displacement strain and stress and the equations of equilibrium in a nonuniform stress field a treatment of the concept of torsion perfect for senior undergraduate and graduate students in aerospace engineering mechanics of aircraft structures will also earn a place in the libraries of aerospace engineers seeking a one stop reference to solidify their understanding of the fundamentals of aircraft structures and discover an overview of new materials in the field

Climate Change and Anthropogenic Impacts on Health in Tropical and Subtropical Regions 2021-07-28

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

Mechanics of Aircraft Structures 2023-01-01

taking into consideration that the agricultural industry is greatly dependent on pesticide chemicals to deal with the damage caused due to pests this new volume details the challenges along with the bioremediation and remediation measures such as the use of beneficial microorganisms polymeric nanocomposites for nanoremediation phytoremediation and more it looks at pesticide contamination from agricultural activities in a variety of different environs and a selection of sustainable and eco friendly remediation approaches it provides a spectrum of concepts ideas and knowledge related to the detrimental actions of pesticides on the environment directly and on human beings indirectly and provides insight into sustainable and advanced pesticide remediation technology it fills a gap in the available literature in this field and will provide valuable for academicians researchers agriculturists and students

Machine Learning and Deep Learning in Real-Time Applications

2000

this book focuses on the recent progress of nanotechnology with emphasis on the interaction between nanoparticles and plants on the cellular level it is devoted to understanding the pathways of nanomaterials entry into plant cell and their influence on cellular organelle processes and influence on crop yield it consists of 16 chapters grouped in 3 parts part i cellular mechanisms part ii cellular macromolecules and part iii implications of nanomaterials chapters present the plant response to nanomaterial applications including morphological physiochemical and anatomical changes and their effect on plant growth and productivity the book discusses the mechanisms of absorbance and translocation of nanoparticles and their interaction with the plant cellular biochemical compounds and organelles it presents the current perspective of nanomaterials influence on cellular processes which include photosynthesis photorespiration and pigment synthesis and accumulation in addition it provides current understanding of the impact of nanomaterials on cellular macromolecules including carbohydrates lipids nucleic acids proteins hormones and antioxidant defense activities collectively these processes and biochemical compounds have implications on crop yield chapters are written by globally recognized scientists and subjected to a rigorous review process to ensure quality presentation and scientific precision chapter begins with an introduction that covers similar contexts and includes a detailed discussion of the topic accompanied by high quality color images diagrams and relevant details and concludes with recommendations for future study directions chapter impact of nanomaterials on plant secondary metabolism is available open access under a creative commons attribution 4 0 international license via link springer.com

Pesticide Contamination in Freshwater and Soil Environs

2023-12-16

generative artificial intelligence is rapidly advancing with many state of the art performances on computer vision speech processing and natural language processing tasks generative adversarial networks and neural diffusion models can generate high quality synthetic images of human faces artworks and coherent essays on different topics generative models are also transforming medical artificial intelligence given their potential to learn complex features from medical imaging and healthcare data hence computer aided diagnosis and healthcare are benefiting from medical artificial intelligence and generative artificial intelligence this book presents the recent advances in generative models for medical artificial intelligence it covers many applications of generative models for medical image data including volumetric medical image segmentation data augmentation mri reconstruction and modeling of spatiotemporal medical data this book highlights the recent advancements in generative artificial intelligence for medical and healthcare applications using medical imaging and clinical and electronic health records data furthermore the book comprehensively presents the concepts and applications of deep learning based artificial intelligence methods such as generative adversarial networks convolutional neural networks and vision transformers it also presents a quantitative and qualitative analysis of data augmentation and synthesis performances of generative artificial intelligence models this book is the result of the collaborative efforts and hard work of many minds who contributed to it and illuminated the vast landscape of medical artificial intelligence the book is suitable for reading by computer science researchers medical professionals healthcare informatics and medical imaging researchers interested in understanding the potential of artificial intelligence in healthcare it serves as a compass for navigating the artificial intelligence driven healthcare landscape

Nanomaterial Interactions with Plant Cellular Mechanisms and Macromolecules and Agricultural Implications 2021-01-01

a novel by american author jack london white fang was first published in outing magazine in 1906 much of white fang is written from the viewpoint of the titular canine character enabling london to explore how animals view their world and how they view humans white fang examines the violent world of wild animals and the equally violent world of humans the book also explores complex themes including morality and redemption

Trade Index of Pakistan 2021-01-01

chandrashekhar azad s short and chequered life of a revolutionary is remembered in the annals of the history of india s freedom struggle not merely for his indomitability in the face of odds but for the human values he cherished in today s world with the edifice of every conceivable value crumbling all around us azad s life offers a paradigm for the redemption of a generation resigned to shallow ideals adversity came a dime a dozen to this village youth born to poor parents rich in morality and humaneness it s the roots that determine the actions of a person and actions his destiny at a time when we seem to be taking our freedom for granted azad s biography is a reminder of the blood and toil that went into securing it the road to preservation of freedom must be hemmed with respect for what we have for being fortunate to be able to breathe in free air the crucial caveat embedded in azad s biography is that we face a far greater threat from the enemies within than from enemies without chandrashekhar azad s short and chequered life of a revolutionary is remembered in the annals of the history of india s freedom struggle not merely for his indomitability in the face of odds but for the human values he cherished in today s world with the edifice of every conceivable value crumbling all around us azad s life offers a paradigm for the redemption of a generation resigned to shallow ideals adversity came a dime a dozen to this village youth born to poor parents rich in morality and humaneness it s the roots that

determine the actions of a person and actions his destiny at a time when we seem to be taking our freedom for granted azad s biography is a reminder of the blood and toil that went into securing it the road to preservation of freedom must be hemmed with respect for what we have for being fortunate to be able to breathe in free air the crucial caveat embedded in azad s biography is that we face a far greater threat from the enemies within than from enemies without biography of chandrashekhar azad by bharat bhushan biography of chandrashekhar azad provides a detailed account of the life of chandrashekhar azad a prominent indian freedom fighter known for his fearless commitment to the cause of independence bharat bhushan offers insights into azad s revolutionary journey key aspects of the book biography of chandrashekhar azad revolutionary life bharat bhushan chronicles chandrashekhar azad s life from his early involvement in the freedom struggle to his leadership in the hindustan socialist republican association hsra political ideals the book explores azad s ideological beliefs and his unwavering dedication to the principles of liberty and justice legacy of bravery readers gain an understanding of chandrashekhar azad s enduring legacy as a symbol of courage and sacrifice in india s fight for freedom bharat bhushan is an author and historian known for his research on indian freedom fighters in biography of chandrashekhar azad he provides a comprehensive account of the life and contributions of this iconic revolutionary

Advances in Deep Generative Models for Medical Artificial Intelligence 2007

this multisite ethnography examines the construction of personal and group identity in the diaspora by emigrants from hyderabad india settling in pakistan the uk canada the us australia and the gulf states of the middle east at the end of the 20th century

The Life and Times of Chandrashekhar Azad 1992

multiscale simulations and mechanics of biological materials a compilation of recent developments in multiscale simulation and computational biomaterials written by leading specialists in the field presenting the latest developments in multiscale mechanics and multiscale simulations and offering a unique viewpoint on multiscale modelling of biological materials this book outlines the latest developments in computational biological materials from atomistic and molecular scale simulation on dna proteins and nano particles to meoscale soft matter modelling of cells and to macroscale soft tissue and blood vessel and bone simulations traditionally computational biomaterials researchers come from biological chemistry and biomedical engineering so this is probably the first edited book to present work from these talented computational mechanics researchers the book has been written to honor professor wing liu of northwestern university usa who has made pioneering contributions in multiscale simulation and computational biomaterial in specific simulation of drug delivery at atomistic and molecular scale and computational cardiovascular fluid mechanics via immersed finite element method key features offers a unique interdisciplinary approach to multiscale biomaterial modelling aimed at both accessible introductory and advanced levels presents a breadth of computational approaches for modelling biological materials across multiple length scales molecular to whole tissue scale including solid and fluid based approaches a companion website for supplementary materials plus links to contributors websites wiley com go li multiscale

Biography of Chandrashekhar Azad 2013-03-19

spiritual and inspirational biography

Locating Home 2014-01-01

pests control and acarology presents novel methods adopted in pest management for cereal crops and fruit trees each chapter was written by experts in their respective areas and provides a rigorous review and outline of current trends and future needs to expedite progress in the field the book was structured in three sections as follows the first section introduces the topics and defines concepts of integrated pest management and biological control the second section includes two chapters the first one discusses a new trap barrier system for rodent pest control in rice and the second one presents methods used in the management of stem borers in cereal crops the third section presents various topics within the area of acarology

National Library of Medicine Current Catalog 2020-02-19

system assurances modeling and management updates on system assurance and performance methods using advanced analytics and understanding of software reliability growth modeling from today s debugging team s point of view along with information on preventive and predictive maintenance and the efficient use of testing resources the book presents the rapidly growing application areas of systems and software modeling including intelligent synthetic characters human machine interface menu generators user acceptance analysis picture archiving and software systems students research scholars academicians scientists and industry practitioners will benefit from the book as it provides better insights into modern related global trends issues and practices provides software reliability modeling simulation and optimization offers methodologies tools and practical applications of reliability modeling and resources allocation presents cost modeling and optimization associated with complex systems

Multiscale Simulations and Mechanics of Biological Materials

2022-02-16

multifunctional hybrid nanomaterials for sustainable agrifood and ecosystems shows how hybrid nanomaterials hnms are being used to enhance agriculture food and environmental science the book discusses the synthesis and characterization of hnms before exploring agrifoods and environmental functions it shows how novel hnms are being used for the detection and separation of heavy metal ions for destroying and sensing of insecticides in managed release fertilizer and pesticide formulations plant protection plant promotions purification detection and to control mycotoxins further the book describes the use of silica based total nanosystems carbon nanotubes nanocellulose based and polymer nanohybrids for agricultural and biological applications this book is an important reference source for materials scientists engineers and food scientists who want to gain a greater understanding on how multifunctional nanomaterials are being used for a range of agricultural and environmental applications outlines the major nanomaterial types that are being used in agriculture explains why the properties of multifunctional nanomaterials are particularly efficient for use in agriculture assesses the major challenges of using multifunctional nanomaterials on an industrial scale

Ashfaqulla Khan 2020-03-30

this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of chandrashekhara azad the life and times of bhagat singh the life and times of subhash chandra bose

Pests Control and Acarology 8-08-22

this combo collection set of 3 books includes all time bestseller books this anthology contains

bhagat singh jail diary the life and times of bhagat singh the life and times of subhash chandra bose

System Assurances *2022-06-24*

this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of birsa munda the life and times of bhagat singh the life and times of chandrashekhar azad

Multifunctional Hybrid Nanomaterials for Sustainable Agri-food and Ecosystems *2020-10-05*

this combo collection set of 3 books includes all time bestseller books this anthology contains the life and times of sardar vallabhbhai patel the life and times of subhash chandra bose the life and times of chandrashekhar azad

Powerful and Influential Indian Revolutionaries Biographies (The Life and Times of Chandrashekhar Azad/ The Life and Times of Bhagat Singh/ The Life and Times of Subhash Chandra Bose) ***1992***

this book highlights important aspects of food biotechnology it is very thoughtfully divided into five sections the first section introduces the readers to food biotechnology and discusses functional foods use of plant and animal biotechnology in improving food quality the second section deals with food microbiology and includes topics such as application of microbial surfactants use of probiotics beneficial microorganisms used in food industry etc the third section describes

important macro and micromolecules in foods it includes chapters on food enzymes gluten free formulations use of biopolymers biofortification of food and other important topics the next section discusses novel technologies such as use of nanotechnology in food industry reverse micelle techniques genome editing in food crops etc the book culminates with a section on food quality and management it describes important topics about biosafety and regulatory issues in food biotechnology this book is meant for students researchers and course instructors in food science food technology and biotechnology it is also useful for industry experts in the area of food technology

India History Timeline Popular Books (Bhagat Singh Jail Diary/ The Life and Times of Bhagat Singh/ The Life and Times of Subhash Chandra Bose)

microalgae cultivation recovery of compounds and applications supports the scientific community professionals and enterprises that aspire to develop industrial and commercialized applications of microalgae cultivation topics covered include conventional and emerging cultivation and harvesting techniques of microalgae design transport phenomena models of microalgae growth in photobioreactors and the catalytic conversion of microalgae a significant focus of the book illustrates how marine algae can increase sustainability in industries like food agriculture biofuel and bioprocessing among others this book is a complete reference for food scientists technologists and engineers working in the bioresource technology field it will be of particular interest to academics and professionals working in the food industry food processing chemical engineering and biotechnology explores emerging technologies for the clean recovery of antioxidants from microalgae includes edible oil and biofuels production functional food cosmetics and animal feed applications discusses microalgae use in sustainable agriculture and wastewater treatment considers the techno economic aspects of microalgae processing for biofuel chemicals

pharmaceuticals and bioplastics

Legendary People's Leaders Encouraging Patriotism

Great Leaders of India's Struggle for Independence

*Revolutionaries of India Part-II (The Life and Times of
Chandrashekhar Azad/ The Life and Times of Madan Lal
Dhingra/ The Life and Times of Deshbandhu Chittranjan Das)
(Set of 3 Books)*

Recent Advances in Food Biotechnology

Microalgae

Pakistan Annual Law Digest

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