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Decision Intelligence Solutions Water Soluble Polymers Empowering Low-Resource Languages With NLP Solutions Intelligent IT Solutions for Sustainability in Industry 5.0 Paradigm ATOMIC AND MOLECULAR SPECTRA (QUANTUM MECHANICS) Intelligent Data Security Solutions for e-Health Applications Controllable Synthesis and Atomic Scale Regulation of Noble Metal Catalysts Advanced Computing and Communication Technologies Meyler's Side Effects of Drugs Advances in Food Processing Technology Soft Computing for Problem Solving Internet of Things High-k Materials in Multi-Gate FET Devices Use this UPSC EPFO Important Questions PDF and boost your scores. The Internet of Drones Bayesian Reasoning and Gaussian Processes for Machine Learning Applications Data Mining Trends and Applications in Criminal Science and Investigations Proceedings of the 8th Brazilian Technology Symposium (BTSym'22) Integrating Research and Practice in Software Engineering Trends in the Analysis and Design of Marine Structures Cognitive Computing Systems Journal of Applied Mechanics Photonic, Electronic And Atomic Collisions - Proceedings Of The Xxiv International Conference Device Circuit Co-Design Issues in FETs Kinetic Modeling for Environmental Systems Laser Surface Treatment of Steel Using ND: Yag Laser Modeling, Design and Optimization of Multiphase Systems in Minerals Processing Proceedings of the ... International Congress on Rheology Software Engineering and Testing Ultrasound Program Management Emergency Medicine Rosen's Emergency Medicine - Concepts and Clinical Practice, 2-Volume Set, Expert Consult Premium Edition - Enhanced Online Features and Print,7 Mechanical Engineering in Biomedical Application Chemical Enhanced Oil Recovery Nanofluids Umformtechnik Handbuch für Industrie und Wissenschaft Side Effects of Drugs Annual Tunneling Field Effect Transistors Progress in Lubrication and Nano- and Biotribology Proceedings of Second Doctoral Symposium on Computational Intelligence

Decision Intelligence Solutions 2024-01-15

this book comprises the select peer reviewed proceedings of the 3rd international conference on information technology incite 2023 it aims to provide a comprehensive and broad spectrum picture of state of the art research and development in decision intelligence deep learning machine learning artificial intelligence data science and enabling technologies for iot blockchain and other futuristic computational technologies it covers various topics that span cutting edge collaborative technologies and areas of computation the content would serve as a rich knowledge repository on information communication technologies neural networks fuzzy systems natural language processing data mining warehousing big data analytics cloud computing security social networks and intelligence decision making and modeling information systems and it architectures this book provides a valuable resource for those in academia and industry

Water Soluble Polymers 2007-05-08

this volume contains a series of papers originally presented at the symposium on water soluble polymers solution properties and applications sponsored by the division of colloids and surface chemistry of the american chemical society the symposium took place in las vegas city nevada on 9 to 11th september 1997 at the 214th american chemical society national meeting recognized experts in their spective fields were invited to speak there was a strong attendance from academia g ernment and industrial research centers the purpose of the symposium was to present and discuss recent developments in the solution properties of water soluble polymers and their applications in aqueous systems water soluble polymers find applications in a number of fields of which the following may be worth mentioning cosmetics detergent oral care industrial water treatment g thermal wastewater treatment water purification and reuse pulp and paper production sugar refining and many more moreover water soluble polymers play vital role in the oil industry especially in enhanced oil recovery water soluble polymers are also used in ag culture and controlled release pharmaceutical applications therefore a fundamental kno edge of solution properties of these polymers is essential for most industrial scientists an understanding of the basic phenomena involved in the application of these polymers such as adsorption and interaction with different substrates i e tooth enamel hair reverse mosis membrane heat exchanger surfaces etc is of vital importance in developing high performance formulations for achieving optimum efficiency of the system

Empowering Low-Resource Languages With NLP Solutions 2024-02-27

in our increasingly interconnected world low resource languages face the threat of oblivion these linguistic gems often spoken by marginalized communities are at risk of fading away due to limited data and resources

the neglect of these languages not only erodes cultural diversity but also hinders effective communication education and social inclusion academics practitioners and policymakers grapple with the urgent need for a comprehensive solution to preserve and empower these vulnerable languages empowering low resource languages with nlp solutions is a pioneering book that stands as the definitive answer to the pressing problem at hand it tackles head on the challenges that low resource languages face in the realm of natural language processing nlp through real world case studies expert insights and a comprehensive array of topics this book equips its readers academics researchers practitioners and policymakers with the tools strategies and ethical considerations needed to address the crisis facing low resource languages

Intelligent IT Solutions for Sustainability in Industry 5.0 Paradigm 2020-09-01

no i matter waves inadequacies of classical mechanics photoelectric phenomenon compton effect wave particle duality de broglie matter waves and their experimental verification heisenberg s uncertainty principle complementary principle principle of superposition motion of wave packets no ii schrodinger equation and its applications schrodinger wave equation interpretation of wave function expectation values of dynamical variables ehrenfest theorem orthonormal properties of wave functions one dimensional motion in step potential rectangular barrier square well potential particle in a box normalization simple harmonic oscillator no iii atomic spectra spectra of hydrogen deuteron and alkali atoms spectral terms doublet fine structure screening constants for alkali spectra for s p d and f states selection rules singlet and triplet fine structure in alkaline earth spectra 1 s and j j couplings weak spectra continuous x ray spectrum and its dependence on voltage duane and haunt s law characteristics x rays moseley s law doublet structure and screening parameters in x ray spectra x ray absorption spectra no iv molecular spectra discrete set of electronic energies of molecules quantisation of vibrational and rotational energies determination of internuclear distance pure rotation and rotation vibration spectra dissociation limit for the ground and other electronic states transition rules for pure vibration and electronic vibration spectra

ATOMIC AND MOLECULAR SPECTRA (QUANTUM MECHANICS) 2022-03-25

e health applications such as tele medicine tele radiology tele ophthalmology and tele diagnosis are very promising and have immense potential to improve global healthcare they can improve access equity and quality through the connection of healthcare facilities and healthcare professionals diminishing geographical and physical barriers one critical issue however is related to the security of data transmission and access to the technologies of medical information currently medical related identity theft costs billions of dollars each year and altered medical

information can put a person s health at risk through misdiagnosis delayed treatment or incorrect prescriptions yet the use of hand held devices for storing accessing and transmitting medical information is outpacing the privacy and security protections on those devices researchers are starting to develop some imperceptible marks to ensure the tamper proofing cost effective and guaranteed originality of the medical records however the robustness security and efficient image archiving and retrieval of medical data information against these cyberattacks is a challenging area for researchers in the field of e health applications intelligent data security solutions for e health applications focuses on cutting edge academic and industry related research in this field with particular emphasis on interdisciplinary approaches and novel techniques to provide security solutions for smart applications the book provides an overview of cutting edge security techniques and ideas to help graduate students researchers as well as it professionals who want to understand the opportunities and challenges of using emerging techniques and algorithms for designing and developing more secure systems and methods for e health applications investigates new security and privacy requirements related to ehealth technologies and large sets of applications reviews how the abundance of digital information on system behavior is now being captured processed and used to improve and strengthen security and privacy provides an overview of innovative security techniques which are being developed to ensure the guaranteed authenticity of transmitted shared or stored data information

Intelligent Data Security Solutions for e-Health Applications 2017-10-24

this book introduces readers to the preparation of metal nanocrystals and its applications in this book an important point highlighted is how to design noble metal nanocrystals at the atomic scale for energy conversion and storage it also focuses on the controllable synthesis of water splitting electrode materials including anodic oxygen evolution reaction oer and cathode hydrogen evolution reaction her at the atomic level by defect engineering and synergistic effect in addition in situ technologies and theoretical calculations are utilized to reveal the catalytic mechanisms of catalysts under realistic operating condition the findings presented not only enrich research in the nano field but also support the promotion of national and international cooperation

Controllable Synthesis and Atomic Scale Regulation of Noble Metal Catalysts 2015-10-15

this volume contains selected papers presented at the 10th international conference on advanced computing and communication technologies 10th icacct 2016 technically sponsored by institution of electronics and telecommunication engineers india held during 18 20 november 2016 at asia pacific institute of information technology panipat india the volume reports latest research on a wide range of topics spanning theory system

applications and case studies in the fields of computing and communication technologies topics covered are robotics computational intelligence encompassing fuzzy logic neural networks ga and evolutionary computing applications knowledge representation data encryption distributed computing data analytics and visualization knowledge representation wireless sensor networks mem sensor design analog circuit statistical machine translation cellular automata and antenna design the volume has 31 chapters including an invited paper on swarm robotics grouped into three parts viz advanced computing communication technologies and micro electronics and antenna design the volume is directed to researchers and practitioners aspiring to solve practical issues particularly applications of the theories of computational intelligence using recent advances in computing and communication technologies

Advanced Computing and Communication Technologies 2019-06-01

meyler s side effects of drugs the international encyclopedia of adverse drug reactions and interactions sixteenth edition seven volume set builds on the success of the 15 previous editions providing an extensively reorganized and expanded resource that now comprises more than 1 500 individual drug articles with the most complete coverage of adverse reactions and interactions found anywhere each article contains detailed and authoritative information about the adverse effects of each drug with comprehensive references to the primary literature making this a must have reference work for any academic or medical library pharmacologist regulatory organization hospital dispensary or pharmaceutical company the online version of the book provides an unparalleled depth of coverage and functionality by offering convenient desktop access and enhanced features such as increased searchability extensive internal cross linking and fully downloadable and printable full text html or pdf articles enhanced encyclopedic format with drug monographs now organized alphabetically completely expanded coverage of each drug with more than 1 500 drug articles and information on adverse reactions and interactions clearer systematic organization of information for easier reading including case histories to provide perspective on each listing extensive bibliography with over 40 000 references a must have reference work for any academic or medical library pharmacologist regulatory organization hospital dispensary or pharmaceutical company

Meyler's Side Effects of Drugs 2021-10-13

this book introduces readers to essential advances in the application of physical processing technology in food processing that have been made in recent years it analyzes and describes the application of power ultrasound pulsed electric field supercritical co2 and infrared heating in the contexts of food sterilization extraction modification drying and safety control covering all aspects of food physical processing from

basic principles to the latest technological developments it offers a valuable application guide for food engineers and food researchers alike

Advances in Food Processing Technology 2021-10-19

this two volume book provides an insight into the 10th international conference on soft computing for problem solving socpros 2020 this international conference is a joint technical collaboration of soft computing research society and indian institute of technology indore the book presents the latest achievements and innovations in the interdisciplinary areas of soft computing it brings together the researchers engineers and practitioners to discuss thought provoking developments and challenges in order to select potential future directions it covers original research papers in the areas including but not limited to algorithms artificial immune system artificial neural network genetic algorithm genetic programming and particle swarm optimization and applications control systems data mining and clustering finance weather forecasting game theory business and forecasting applications the book will be beneficial for young as well as experienced researchers dealing across complex and intricate real world problems for which finding a solution by traditional methods is a difficult task

Soft Computing for Problem Solving 2021-09-16

internet of things iot is the connection and communication of physical objects smart devices over the internet in this recent age people s daily lives are dependent on the internet through their smartphones tablets smart tvs micro controllers smart tags computers laptops and cars to name a few this book discusses different ways to create a better iot network and or iot platforms to improve the efficiency and quality of these products and subsequently their users lives in addition this book provides future research directions in energy industry and healthcare and explores the different applications of iot and its associated technologies it provides an overview and explanation of the software architecture middleware data processing and data management as well as security sensors actuators and algorithms used to create a working iot platform the editors then go on to examine iot networks and platforms as they relate to energy industry including energy efficiency and management intelligent energy management smart energy through blockchain and energy efficient aware routing scheduling challenges and issues they then explore iot as it applies to healthcare including biomedical image and signal analysis and disease prediction and diagnosis finally the editors examine the prospects and applications of iot for industry through the concepts of smart industry including architecture blockchain and industry 4 0 this book is intended for senior undergraduate and graduate students researchers and industry professionals working on iot applications and infrastructure reviews iot software architecture and middleware data processing and management security privacy and reliability architectures

protocols technologies algorithms and smart objects sensors and actuators explores iot as it applies to energy including energy efficiency and management intelligent energy management smart energy through blockchain and energy efficient aware routing scheduling challenges and issues examines iot as it applies to healthcare including biomedical image and signal analysis and disease prediction and diagnosis examines iot as it applies to smart industry including architecture blockchain and industry 4 0 discusses different ways to create a better iot network or iot platform

Internet of Things 2023-03-20

high k materials in multi gate fet devices focuses on high k materials for advanced fet devices it discusses emerging challenges in the engineering and applications and considers issues with associated technologies it covers the various way of utilizing high k dielectrics in multi gate fets for enhancing their performance at the device as well as circuit level provides basic knowledge about fet devices presents the motivation behind multi gate fets including current and future trends in transistor technologies discusses fabrication and characterization of high k materials contains a comprehensive analysis of the impact of high k dielectrics utilized in the gate oxide and the gate sidewall spacers on the gidl of emerging multi gate fet architectures offers detailed application of high k materials for advanced fet devices considers future research directions this book is of value to researchers in materials science electronics engineering semiconductor device modeling it and related disciplines studying nanodevices such as finfet and tunnel fet and device circuit codesign issues

<u>High-k Materials in Multi-Gate FET Devices</u> 2022-11-03

refer to upsc epfo important questions to ace the exam solve these mcqs and refer to the study notes provided to aid your exam prep these questions follow the latest syllabus and are in pdf form

<u>Use this UPSC EPFO Important Questions PDF and</u> <u>boost your scores.</u> 2022-04-14

in recent years drones have been integrated with the internet of things to offer a variety of exciting new applications here is a detailed exploration of adapting and implementing internet of drones technologies in real world applications emphasizing solutions to architectural challenges and providing a clear overview of standardization and regulation implementation plans and privacy concerns the book discusses the architectures and protocols for drone communications implementing and deploying of 5g drone setups security issues deep learning techniques applied on real time footage and more it also explores some of the varied applications such as for monitoring and analysis of troposphere pollutants providing services and communications in smart cities such as for weather forecasting communications transport safety and protection for disaster relief management for agricultural crop monitoring and more

The Internet of Drones 2016-06-20

this book introduces bayesian reasoning and gaussian processes into machine learning applications bayesian methods are applied in many areas such as game development decision making and drug discovery it is very effective for machine learning algorithms in handling missing data and extracting information from small datasets bayesian reasoning and gaussian processes for machine learning applications uses a statistical background to understand continuous distributions and how learning can be viewed from a probabilistic framework the chapters progress into such machine learning topics as belief network and bayesian reinforcement learning which is followed by gaussian process introduction classification regression covariance and performance analysis of gaussian processes with other models features contains recent advancements in machine learning highlights applications of machine learning algorithms offers both quantitative and qualitative research includes numerous case studies this book is aimed at graduates researchers and professionals in the field of data science and machine learning

Bayesian Reasoning and Gaussian Processes for Machine Learning Applications 2023-06-01

the field of data mining is receiving significant attention in today s information rich society where data is available from different sources and formats in large volumes and no longer constitutes a bottleneck for knowledge acquisition this rich information has paved the way for novel areas of research particularly in the crime data analysis realm data mining trends and applications in criminal science and investigations presents scientific concepts and frameworks of data mining and analytics implementation and uses across various domains such as public safety criminal investigations intrusion detection crime scene analysis and suspect modeling exploring the diverse ways that data is revolutionizing the field of criminal science this publication meets the research needs of law enforcement professionals data analysts investigators researchers and graduate level students

Data Mining Trends and Applications in Criminal Science and Investigations 2019-08-02

this book presents the proceedings of the 8th brazilian technology symposium btsym 22 the book discusses current technological issues on systems engineering mathematics and physical sciences such as the transmission line protein modified mortars electromagnetic properties

clock domains chebyshev polynomials satellite control systems hough transform watershed transform blood smear images toxoplasma gondi operation system developments mimo systems geothermal photovoltaic energy systems mineral flotation application cmos techniques frameworks developments physiological parameters applications brain computer interface artificial neural networks computational vision security applications fpga applications iot residential automation data acquisition industry 4 0 cyber physical systems digital image processing patters recognition machine learning photocatalytic process physical chemical analysis smoothing filters frequency synthesizers voltage controlled ring oscillator difference amplifier photocatalysis and photodegradation and current technological issues on human smart and sustainable future of cities such as the digital transformation data science hydrothermal dispatch project knowledge transfer immunization programs efficiency and predictive methods pmbok applications logistics process iot data acquisition industry 4 0 cyber physical systems fingerspelling recognition cognitive ergonomics ecosystem services environmental ecosystem services valuation solid waste and university extension

Proceedings of the 8th Brazilian Technology Symposium (BTSym'22) 2018-09-03

in this book the authors highlight recent findings that hold the potential to improve software products or development processes in addition they help readers understand new concepts and technologies and to see what it takes to migrate from old to new platforms some of the authors have spent most of their careers in industry working at the frontiers of practice based innovation and are at the same time prominent researchers who have made significant academic contributions others work together with industry to test in industrial settings the methods they ve developed in the lab the choice of subject and authors represent the key elements of this book its respective chapters cover a wide range of topics from cloud computing to agile development applications of data science methods re engineering of aging applications into modern ones and business and requirements engineering taken together they offer a valuable asset for practitioners and researchers alike

Integrating Research and Practice in Software Engineering 2021-05-10

master the tools of design thinking using neuroprosthetics principles and applications developed from successfully tested material used in an undergraduate and graduate level course taught to biomedical engineering and neuroscience students this book focuses on the use of direct neural sensing and stimulation as a therapeutic intervention for complex disorders of the brain it covers the theory and applications behind neuroprosthetics and explores how neuroprosthetic design thinking can enhance value for users of a direct neural interface the book explains

the fundamentals of design thinking introduces essential concepts from neuroscience and engineering illustrating the major components of neuroprosthetics and presents practical applications in addition to describing the approach of design thinking based on facts about the user s needs desires habits attitudes and experiences with neuroprosthetics it also examines how effectively human centered neuroprosthetics can address people s needs and interactions in their daily lives identifying concepts and features of devices that work well with users of a direct neural interface this book outlines the signal sensing capabilities and trade offs for common electrode designs and determines the most appropriate electrode for any neuroprosthetic application specifies neurosurgical techniques and how electronics should be tailored to capture neural signals provides an understanding of the mechanisms of neural electrode performance and information contained in neural signals provides understanding of neural decoding in neuroprosthetic applications describes the strategies that can be used to promote long term therapeutic interventions for humans through the use of neuroprosthetics the first true primary text for undergraduate and graduate students in departments of neuroscience and bioengineering that covers the theory and applications behind this science neuroprosthetics principles and applications provides the fundamental knowledge needed to understand how electrodes translate neural activity into signals that are useable by machines and enables readers to master the tools of design thinking and apply them to any neuroprosthetic application

Trends in the Analysis and Design of Marine Structures 1991

this new volume cognitive computing systems applications and technological advancements explores the emerging area of artificial intelligence that encompasses machine self learning human computer interaction natural language processing data mining and more it introduces cognitive computing systems highlights their key applications discusses the technologies used in cognitive systems and explains underlying models and architectures focusing on scientific work for real world applications each chapter presents the use of cognitive computing and machine learning in specific application areas these include the use of speech recognition technology application of neural networks in construction management elevating competency in education comprehensive health monitoring systems predicting type 2 diabetes applications for smart agricultural technology human resource management and more with chapters from knowledgeable researchers in the area of artificial intelligence cognitive computing and allied areas this book will be an asset for researchers faculty advances students and industry professionals in many fields

Cognitive Computing Systems 2006-11-29

this volume contains contributions covering a wide range of subjects in

the area of photonic electronic and atomic collisions these include the collisions of heavy particles and electrons with atoms molecules and clusters the coherent control of reaction dynamics using lasers and electromagnetic fields with molecules clusters and liquids recent experimental progress in the synthesis of antihydrogen the interaction of solar winds with cometary atmospheres and the physical interpretation of reactions in biological systems a

Journal of Applied Mechanics 2023-08-22

this book provides an overview of emerging semiconductor devices and their applications in electronic circuits which form the foundation of electronic devices device circuit co design issues in fets provides readers with a better understanding of the ever growing field of low power electronic devices and their applications in the wireless biosensing and circuit domains the book brings researchers and engineers from various disciplines of the vlsi domain together to tackle the emerging challenges in the field of engineering and applications of advanced low power devices in an effort to improve the performance of these technologies the chapters examine the challenges and scope of finfet device circuits 3d fets and advanced fet for circuit applications the book also discusses low power memory design neuromorphic computing and issues related to thermal reliability the authors provide a good understanding of device physics and circuits and discuss transistors based on the new channel dielectric materials and device architectures to achieve low power dissipation and ultra high switching speeds to fulfill the requirements of the semiconductor industry this book is intended for students researchers and professionals in the field of semiconductor devices and nanodevices as well as those working on device circuit co design issues

Photonic, Electronic And Atomic Collisions -Proceedings Of The Xxiv International Conference 2019-04-10

the continuous increase in human activities affects the environment in notable ways these effects need to be monitored and controlled when appropriate to ensure the sustainability of our lives environmental pollution is one of the major problems associated with human activities as a result of routine and accidental releases currently pollution prevention control and affected environment remediation receive great attention globally this attention has led to a continuous increase in research efforts that aim to understand simulate and predict important processes that affect pollutant generation and migration optimization of chemical and physical reactions within different waste treatment technologies and remediation projects are the focus of many research projects worldwide this book presents some kinetic models that could be used to support pollution prevention control and environmental assessments of human activities

Device Circuit Co-Design Issues in FETs 1992

mineral processing deals with complex particle systems with two three and more phases the modeling and understanding of these systems are a challenge for research groups and a need for the industrial sector this special issue aims to present new advances methodologies applications and case studies of computer aided analysis applied to multiphase systems in mineral processing this includes aspects such as modeling design operation optimization uncertainty analysis among other topics the special issue contains a review article and eleven articles that cover different methodologies of modeling design optimization and analysis in problems of adsorption leaching flotation and magnetic separation among others consequently the topics covered are of interest to readers from academia and industry

Kinetic Modeling for Environmental Systems 2020-03-19

this book is designed for use as an introductory software engineering course or as a reference for programmers up to date text uses both theory applications to design reliable error free software includes a companion cd rom with source code third party software engineering applications

Laser Surface Treatment of Steel Using ND:Yag Laser 2000

this book addresses the wide range of issues that face the program leader from how to choose a site and how to negotiate for equipment to how to determine staffing requirements and how to anticipate and defuse possible turf issues with other programs and services in the hospital or healthcare facility the early chapters of this book focus on the leadership of your program whether in your department or institution the second section centers on education at all levels recognizing that smaller machines have made ultrasound available for medical students to advanced practitioners the third section provides detailed logistics on equipment maintenance and safety the fourth section focuses on a quality improvement program and includes a chapter on the workflow process for those with limited budgets we also offer a section on practical operating and educational solutions the fifth section offers insight into hospital level credentialing quality assurance national politics and recent issues with accreditation this is followed by reimbursement and coding the last section covers topics in specialized communities chapters focus on ultrasound in global health emergency medical services pediatrics critical care community and office based practices multiple us working documents including checklists graphs spreadsheets tables and policy appendices are included

Modeling, Design and Optimization of Multiphase Systems in Minerals Processing 2010

in an emergency you only have one chance and usually very little time to make the right decision how can you be certain you have the knowledge you need through six editions rosen s emergency medicine has set the standard in emergency medicine offering unparalleled comprehensiveness clarity and authority now the seventh edition places the latest knowledge at your fingertips while a more streamlined format makes it easy to find the exact information you seek more rapidly and conveniently than ever before presents more than 1 200 exquisite color illustrations that accurately capture the real life appearance of patient symptoms and diagnostic imaging findings helping you to reach a definitive diagnosis more easily includes cardinal presentations sections that provide quick and easy guidance on differential diagnosis and directed testing presents greatly expanded coverage of emergency ultrasound and emergency gynecological disorders to place the latest knowledge at your fingertips as well as state of the art coverage of emergency ultrasound management of sepsis new airway devices updated protocols for adult and pediatric cardiac arrest stemi and nstemi acs dvt and pte and much much more features a streamlined format that focuses on the most need to know information so you can find answers more quickly

Proceedings of the ... International Congress on Rheology 2018-02-01

this reference places the latest information at users fingertips and a more streamlined format makes it easy to find the exact information quickly and conveniently includes access to a companion site for additional resources

Software Engineering and Testing 2009-09-09

mechanical engineering in biomedical applications the book explores the latest research and developments related to the interdisciplinary field of biomedical and mechanical engineering offering insights and perspectives on the research key technologies and mechanical engineering techniques used in biomedical applications the book is divided into several sections that cover different aspects of mechanical engineering in biomedical research the first section focuses on the role of additive manufacturing technologies rehabilitation in healthcare applications and artificial recreation of human organs the section also covers the advances risks and challenges of bio 3d printing the second section presents insight into biomaterials including their properties applications and fabrication techniques the section also covers the use of powder metallurgy methodology and techniques of biopolymer and bio ceramic coatings on prosthetic implants the third section covers biofluid mechanics including the mechanics of fluid flow within our body the mechanical aspects of human synovial fluids and the design of medical devices for fluid flow applications the section also covers the use of computational modeling to study the blockage of carotid arteries the final section elaborates on soft robotic manipulation for use in medical sciences audience the book provides practical insights and applications for mechanical engineers biomedical engineers medical professionals and researchers working on the design and development of biomedical devices and implants

Ultrasound Program Management 2010-01-01

this book aims at presenting describing and summarizing the latest advances in polymer flooding regarding the chemical synthesis of the eor agents and the numerical simulation of compositional models in porous media including a description of the possible applications of nanotechnology acting as a booster of traditional chemical eor processes a large part of the world economy depends nowadays on non renewable energy sources most of them of fossil origin though the search for and the development of newer greener and more sustainable sources have been going on for the last decades humanity is still fossil fuel dependent primary and secondary oil recovery techniques merely produce up to a half of the original oil in place enhanced oil recovery eor processes are aimed at further increasing this value among these chemical eor techniques including polymer flooding present a great potential in low and medium viscosity oilfields describes recent advances in chemical enhanced oil recovery contains detailed description of polymer flooding and nanotechnology as promising boosting tools for eor includes both experimental and theoretical studies about the authors patrizio raffa is assistant professor at the university of groningen he focuses on design and synthesis of new polymeric materials optimized for industrial applications such as eor coatings and smart materials he co authored about 40 articles in peer reviewed journals pablo druetta works as lecturer at the university of groningen rug and as engineering consultant he received his ph d from rug in 2018 and has been teaching at a graduate level for 15 years his research focus lies on computational fluid dynamics cfd

Emergency Medicine 2024-01-02

nanofluids are a new class of heat transfer fluids engineered by dispersing and stably suspending nanoparticles in traditional heat transfer fluids recently they have obtained global attention from the scientific community owing to their unique properties and significant applications in different engineering fields nanofluids preparation applications and simulation methods provides a comprehensive review of recent advances in this important research field different approaches for preparing some remarkable families of nanofluids such as aluminum oxide based nanofluids cuo cu based nanofluids carbon nanotubes graphene based nanofluids zno based nanofluids fe3o4 based nanofluids and sio2 based nanofluids are discussed in detail as well as their current and potential

applications different approaches for numerical semi analytical and analytical simulations are also discussed including molecular dynamics the lattice boltzmann method and spectral methods as well as advanced analytical techniques such as the differential transform method the homotopy analysis method and optimal homotopy analysis the book will be a valuable reference resource for academic and industrial researchers materials scientists and engineers nanotechnologists and chemists working in the development of nanomaterials and nanofluids for heat transfer in energy and engineering applications covers the synthesis of nanostructures preparation of nanofluids different applications and proposed models for fluid mechanics and heat transfer presents recent advances on preparation methods including green chemistry based methods for preparation of nanomaterials and nanofluids includes novel model based approaches such as molecular dynamics and lattice boltzmann methods delves into applications in renewable energy technologies and thermal management contains a semi analytical approach for solving time fractional navier stokes equation

Rosen's Emergency Medicine - Concepts and Clinical Practice, 2-Volume Set, Expert Consult Premium Edition - Enhanced Online Features and Print, 7 2019-07-22

falls sie wissenschaftler oder praktiker auf dem gebiet der umformtechnik sind so stehen die ersten drei bände dieser umfassenden und detaillierten standardreferenz wahrscheinlich schon in ihrem regal der vierte band komplettiert das werk auch er wurde von führenden industriepraktikern und wissenschaftlern unter der federführung eines der renommiertesten fachleute auf diesem gebiet verfaßt

Mechanical Engineering in Biomedical Application 2024-07-26

the side effects of drugs annual was first published in 1977 it has been continually published since then as a yearly update to the voluminous encyclopedia meyler s side effects of drugs each new annual continues to provide clinicians and medical investigators with a reliable and critical yearly survey of new data and trends in the area of adverse drug reactions and interactions an international team of specialists has contributed to the informative annual by critically interpreting it and by pointing to whatever is misleading provides a critical yearly survey of new data and trends special reviews in this annual include among other topics epidemiology of the use of ecstasy paracetamol and the risk of asthma combination vaccines multiple immunizations interactions of herbal medicines with warfarin and tyrosine kinase inhibitors

Chemical Enhanced Oil Recovery 2013-03-11

this book will give insight into emerging semiconductor devices from their applications in electronic circuits which form the backbone of electronic equipment it provides desired exposure to the ever growing field of low power electronic devices and their applications in nanoscale devices memory design and biosensing applications tunneling field effect transistors design modeling and applications brings researchers and engineers from various disciplines of the vlsi domain to together tackle the emerging challenges in the field of nanoelectronics and applications of advanced low power devices the book begins by discussing the challenges of conventional cmos technology from the perspective of low power applications and it also reviews the basic science and developments of subthreshold swing technology and recent advancements in the field the authors discuss the impact of semiconductor materials and architecture designs on tfet devices and the performance and usage of fet devices in various domains such as nanoelectronics memory devices and biosensing applications they also cover a variety of fet devices such as mosfets and tfets with various structures based on the tunneling transport phenomenon the contents of the book have been designed and arranged in such a way that electrical engineering students researchers in the field of nanodevices and device circuit codesign as well as industry professionals working in the domain of semiconductor devices will find the material useful and easy to follow

Nanofluids 2014-03-04

tribology is a multidisciplinary science that encompasses mechanical engineering materials science surface engineering lubricants and additives chemistry with tremendous applications progress in lubrication and nano and biotribology discusses the latest in lubrication engineering and nano and biotribology this book discusses green tribology and snakeskin tribology explains biogreases and nanolubricant additives explores applications in aerospace additively manufactured parts and severe environments written for researchers and advanced students this book encompasses a wide ranging view of the latest in nano and biotribology for a variety of cross disciplinary applications

Umformtechnik Handbuch für Industrie und Wissenschaft 2023-06-08

this book features high quality research papers presented at second doctoral symposium on computational intelligence dosci 2021 organized by institute of engineering and technology iet aktu lucknow india on 6 march 2021 this book discusses the topics such as computational intelligence artificial intelligence deep learning evolutionary algorithms swarm intelligence fuzzy sets and vague sets rough set theoretic approaches quantum inspired computational intelligence hybrid computational intelligence machine learning computer vision soft computing distributed computing parallel and grid computing cloud computing high performance computing biomedical computing decision support and decision making

Side Effects of Drugs Annual 2021-11-23

Tunneling Field Effect Transistors 2021-09-19

Progress in Lubrication and Nano- and Biotribology

Proceedings of Second Doctoral Symposium on Computational Intelligence

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