Department Of Medical Physics Bharathiar University

Explains the basics of food technology and new product development from initial planning through formulation, market research, manufacturing and product launchCarefully outlined test protocols plus quantified sensory, financial and feasibility analysisRecaps key technical concepts across the entire food science curriculum Developed as a comprehensive guide to how food products are planned, budgeted, manufactured and launched, this original textbook forms a cohesive introduction to all phases of food product development. A unique feature of the book is that it reviews the main concepts of food chemistry, ingredient functionality, additives, processing, quality control, safety, package labeling and more-—virtually the entire food technology curriculum. With this specialized information as context, the book spells out the procedures needed to formulate, cost-justify and test market safe and profitable new products that meet regulatory guidelines and consumer expectations. The technical exposition is highlighted by case studies of novel food items introduced by U.S. companies. Syllabus-ready and furnished with back-of-chapter questions and projects, the volume is highly suited for university courses, including the capstone, as well as in-house and team training short courses in industry.

"Kerala, a narrow stretch of land cuddled on the foothills of Western ghats is bestowed with nature's magic and has awesome rank among tourist destinations globally. Kerala society is evolved through spectacular religious and reform movements. The book is a compilation of 17 chapters which promulgates the rich tradition, biodiversity, politics, governance, climate change and health of Kerala State which outlines history, current state and future. The book is very helpful for those who seek answers about the multicultural society ladder and Kerala Model success stories with an in depth and panoramic approach"--

This book examines the fundamentals and technologies of Artificial Intelligence (AI) and describes their tools, challenges, and issues. It also explains relevant theory as well as industrial applications in various domains, such as healthcare, economics, education, product development, agriculture, human resource management, environmental management, and marketing. The book is a boon to students, software developers, teachers, members of boards of studies, and researchers who need a reference resource on artificial intelligence and its applications and is primarily intended for use in courses offered by higher education institutions that strive to equip their graduates with Industry 4.0 skills. FEATURES: Gender disparity in the enterprises involved in the development of AI-based software development as well as solutions to eradicate such gender bias in the AI world A general framework for AI in environmental management, smart farming, e-waste management, and smart energy optimization The potential and application of AI in medical imaging as well as the challenges of AI in precision medicine AI's role in the diagnosis of various diseases, such as cancer and diabetes The role of machine learning models in product development and statistically monitoring product quality Machine learning to make robust and effective economic policy decisions Machine learning and data mining approaches to provide better video indexing mechanisms resulting in better searchable results ABOUT THE EDITORS: Prof. Dr. P. Kaliraj is Vice Chancellor at Bharathiar University, Coimbatore, India. Prof. Dr. T. Devi is Professor and Head of the Department of Computer Applications, Bharathiar University, Coimbatore, India.

Radiation Health Risk Sciences

Life Chemistry Research

Annual Statistical Abstract for Tamil Nadu

Indian Science Abstracts

Advancing Technologies

The Yearbook of the Universities of the Empire

This book covers the medical condition of diabetic patients, their early symptoms and methods conventionally used for diagnosing and monitoring diabetes. It describes various techniques and technologies used for diabetes detection. The content is built upon moving from regressive technology (invasive) and adapting new-age pain-free technologies (non-invasive), machine learning and artificial intelligence for diabetes monitoring and management. This book details all the popular technologies used in the health care and medical fields for diabetic patients. An entire chapter is dedicated to how the future of this field will be shaping up and the challenges remaining to be conquered. Finally, it shows artificial intelligence and predictions, which can be beneficial for the early detection, dose monitoring and surveillance for patients suffering from diabetes

Radiation Biology for Medical PhysicistsCRC Press

Research on biomedical applications of nanomaterials has exhibited the rapidly evolving field of biomedical sciences by showing how effective they are in treatment. These particles hold considerable potential for biomedical applications. Work is ongoing, and the results suggest a possibility for a sustainable future for nanomaterials in both therapeutic and biomedical fields. This book highlights current and emerging applications, taking global research findings into consideration. We believe the focus on the identification and role of nanomaterial applications in therapeutic and biomedical sciences can lead to novel solutions in the fields. The chapters of this book are disseminated in a manner that can be readily adopted as sources for new and further study. The editors integrate advanced texts in their research that help graduate students, researchers and professors. Additionally, we believe that international readers will be able to make use of this book for reference purposes.

Annual Statistical Abstracts for Tamil Nadu

Information Technology for Advanced Manufacturing Systems

Intelligent Computing and Innovation on Data Science

Solid State Ionics

Biological Systems

Heavy Metal Remediation

Plants have a very specific and efficient mechanism to obtain, translocate and store nutrients from the surrounding environment. The precise mechanism that helps a plant in nutrient translocation from root to shoot also, in the same way, transfers and stores toxic metals within their structure. Metal toxicity generally causes multiple direct or indirect effects on plants, affecting nearly all of their physiological functions. Plant tolerance to heavy metals depends largely on plant efficiency in uptake, translocation and sequestration of heavy metals in specific cell organelles or specialized tissues. The main purpose of this book is to present a holistic view of the recent advancement in the field of accumulation and remediation using plants, the green solar powered alternative to ameliorate heavy metal from the polluted environment. The key features of the book are related to metal transporters and metal accumulation mechanisms under heavy metal stress in plants, plant transcriptional regulation and responses under metal contamination, multiple toxic metal contaminations and its phytoremediation approaches etc. Based on the advancement of research in recent years, the information compiled in this book will bring an in-depth knowledge on the bioaccumulation of metals, their transportation in natural conditions or genetically modified plants and their strategy to cope with the toxicity to survive in the hostile environment.

Computer-aided manufacturing and design, flexible manufacturing, computer-aided production management, and computer-integrated manufacturing are widely used in manufacturing enterprise. Within these systems, information technology has been applied to capture, organize, manage and display data. In the future, information technology must also become the catalyst for interaction among workers in these fields, in a complete enterprise from concept to product. This requires the development of an integrated information-system infrastructure. The papers in this volume are reports on the theory, and current and future applications of information technology. The collection presents valuable milestones towards the progress of information technology in advanced manufacturing systems.

Solid state ionics is concerned with the science and technology of ions in motion in the solid state. Ions in motion may also involve electrons, depending on the materials and surroundings. These days, solid state ionics is finding an increasing variety of applications. The knowledge of solid state ionics is also extensively mobilized to protect, predict or elongate the lifetime of structural materials in harsh service conditions and to improve the performance reliability of devices. Furthermore, solid state ionics is now being combined with the emerging nanotechnology to produce new knowledge and applications. This book covers the following topics: fuel cells and membranes; batteries; sensors and electrochromics; fundamentals of ionic transport and defect chemistry; cation/anion/mixed ionic electronic conductors. Contents: Fuel Cells and MembranesBatteriesSensors and ElectrochromicsDefect Solid StateIonic Conductors Readership: Physicists, chemists, materials scientists and engineers. Keywords:Solid State Ionics;Fuel Cells;Batteries;Sensors;Electrochromics

Proceedings of the IFIP TC5/WG5.3 International Conference on Information Technology for Advanced Manufacturing Systems, Nanjing, P.R. China, 17-19 September, 1991

State Administration Report

India 2007-08 : Summary Report

Engineered Nanomaterials for Innovative Therapies and Biomedicine

Radiation Biology for Medical Physicists

Annual Number

This volume contains a collection of topical chapters that promote interdisciplinary approaches to biological systems, focusing on fundamental and relevant connections between chemistry and life. Included are studies and experiments as well as invited lectures and notes by prominent leaders on a wide variety of topics in biology and biochemistry. B

Nanotechnology is a fast-evolving discipline that already produces outstanding basic knowledge and industrial applications for the benefit of society. It is a new emerging and fascinating field of science, that permits advanced research in many areas. The first applications of nanotechnology mainly concerned material sciences; applications in the agriculture and food sectors are still emerging. Food science nanotechnology is an area of rising attention that unties new possibilities for the food industry. Due to the rapid population growth there is a need to produce food and beverages in a more efficient, safe and sustainable way. The application of nanotechnology in food has also gained great importance in recent years in view of its potential application to improve production of food crops, enhance nutrition, packaging and food safety overall. The new materials, products and applications are anticipated to bring lots of improvements to the food and related sectors, impacting agriculture and food production, food processing, distribution, storage, sanitation as well as the development of innovative products and sensors for effective detection of contaminants. Therefore, nanotechnology present with a large potential to provide an opportunity for the researchers of food science, food microbiology and other fields, to develop new tools for incorporation of nanoparticles into food system that could augment existing functions and add new ones. However, the number of relative publications currently available is rather small. The present Research Topic aims to provide with basic information and practical applications regarding all aspects related to the applications of nanotechnology in food science and food microbiology, namely, nanoparticle synthesis, especially through the eco-friendly perspective, potential applications in food processing, biosensor development, alternative strategies for effective pathogenic bacteria monitoring as well as the possible effects on human health and the environment.

The need for intelligent machines in areas such as medical diagnostics, biometric security systems, and image processing motivates researchers to develop and explore new techniques, algorithms, and applications in this evolving field.Cross-Disciplinary Applications of Artificial Intelligence and Pattern Recognition: Advancing Technologies provides a common platform for researchers to present theoretical and applied research findings for enhancing and developing intelligent systems. Through its discussions of advances in and applications of pattern recognition technologies and artificial intelligence, this reference highlights core concepts in biometric imagery, feature recognition, and other related fields, along with their applicability.

Kerala

Intelligent Pervasive Computing Systems for Smarter Healthcare

Methods for Developing New Food Products

Deep Neural Networks for Multimodal Imaging and Biomedical Applications

Past, Present and Future Perspectives

An Instructional Guide

The field of solid state ionics deals with ionically conducting materials in the solid state and numerous devices based on such materials. Solid state ionic materials cover a wide spectrum, ranging from inorganic crystalline and polycrystalline solids, ceramics, glasses, polymers, composites and nano-scale materials. A large number of Scientists in Asia are engaged in research in solid state ionic materials and devices and since 1988. The Asian Society for solid state ionics has played a key role in organizing a series of bi-ennial conferences on solid state ionics in different Asian countries. The contributions in this volume were presented at the 10th conference in the series organized by the Postgraduate Institute of Science (PGIS) and the Faculty of Science, University of Peradeniya, Sri Lanka, which coincided with the 10th Anniversary of the Postgraduate Institute of Science (PGIS). The topics cover solid state ionic materials as well as such devices as solid state batteries, fuel cells, sensors, and electrochromic devices. The aspects covered include theoretical studies and modeling, experimental techniques, materials synthesis and characterization, device fabrication and characterization.

A guide to intelligent decision and pervasive computing paradigms for healthcare analytics systems with a focus on the use of bio-sensors Intelligent Pervasive Computing Systems for Smarter Healthcare describes the innovations in healthcare made possible by computing through bio-sensors. The pervasive computing paradigm offers tremendous advantages in diversified areas of healthcare research and technology. The authors—noted experts in the field—provide the state-of-the-art intelligence paradigm that enables optimization of medical assessment for a healthy, authentic, safer, and more productive environment. Today’s computers are integrated through bio-sensors and generate a huge amount of information that can enhance our ability to process enormous bio-informatics data that can be transformed into meaningful medical knowledge and help with diagnosis, monitoring and tracking health issues, clinical decision making, early detection of infectious disease prevention, and rapid analysis of health hazards. The text examines a wealth of topics such as the design and development of pervasive healthcare technologies, data modeling and information management, wearable biosensors and their systems, and more. This important resource: Explores the recent trends and developments in computing through bio-sensors and its technological applications Contains a review of biosensors and sensor systems and networks for mobile health monitoring Offers an opportunity for readers to examine the concepts and future outlook of intelligence on healthcare systems incorporating biosensor applications Includes information on privacy and security issues on wireless body area network for remote healthcare monitoring Written for scientists and application developers and professionals in related fields, Intelligent Pervasive Computing Systems for Smarter Healthcare is a guide to the most recent developments in intelligent computer systems that are applicable to the healthcare industry.

The amount of data used in the business world has been growing at a rapid and exponential rate. These large volumes of data have led not only to the rise of big data analytics, but to the need for improvements and advancements in the management of it. Recent Advances in Intelligent Technologies and Information Systems brings together current practices and innovations in the management and processing of diverse big data sets through technological integration. Focusing on concepts such as semantic technologies, open source tools, and soft computing, this book is an integral reference source for professionals, researchers, and practitioners interested in the application of technological advancements.

Science & Culture

Cross-Disciplinary Applications of Artificial Intelligence and Pattern Recognition: Advancing Technologies

Proceedings of the 10th Asian Conference on Solid State Ionics

Handbook of Universities

Cyclic normal fuzzy neutrosopic soft G-modular structures acting on a group

International Survey, Worldviews and Opinions of Scientists

Machine learning allows for non-conventional and productive answers for issues within various fields, including problems related to visually perceptive computers. Applying these strategies and algorithms to the area of computer vision allows for higher achievement in tasks such as spatial recognition, big data collection, and image processing. There is a need for research that seeks to understand the development and efficiency of current methods that enable machines to see. Challenges and Applications for Implementing Machine Learning in Computer Vision is a collection of innovative research that combines theory and practice on adopting the latest deep learning advancements for machines capable of visual processing. Highlighting a wide range of topics such as video segmentation, object recognition, and 3D modelling, this publication is ideally designed for computer scientists, medical professionals, computer engineers, information technology practitioners, industry experts, scholars, researchers, and students seeking current research on the utilization of evolving computer vision techniques.

The field of healthcare is seeing a rapid expansion of technological advancement within current medical practices. The implementation of technologies including neural networks, multi-model imaging, genetic algorithms, and soft computing are assisting in predicting and identifying diseases, diagnosing cancer, and the examination of cells. Implementing these biomedical technologies remains a challenge for hospitals worldwide, creating a need for research on the specific applications of these computational techniques. Deep Neural Networks for Multimodal Imaging and Biomedical Applications provides research exploring the theoretical and practical aspects of emerging data computing methods and imaging techniques within healthcare and biomedicine. The publication provides a complete set of information in a single module starting from developing deep neural networks to predicting disease by employing multi-modal imaging. Featuring coverage on a broad range of topics such as prediction models, edge computing, and quantitative measurements, this book is ideally designed for researchers, academicians, physicians, IT consultants, medical software developers, practitioners, policymakers, scholars, and students seeking current research on biomedical advancements and developing computational methods in healthcare.

This book covers both basic and high-level concepts relating to the intelligent computing paradigm and data sciences in the context of distributed computing, big data, data sciences, high-performance computing and Internet of Things. It is becoming increasingly important to develop adaptive, intelligent computing-centric, energy-aware, secure and privacy-aware systems in high-performance computing and IoT applications. In this context, the book serves as a useful guide for industry practitioners, and also offers beginners a comprehensive introduction to basic and advanced areas of intelligent computing. Further, it provides a platform for researchers, engineers, academics and industrial professionals around the globe to showcase their recent research concerning recent trends. Presenting novel ideas and stimulating interesting discussions, the book appeals to researchers and practitioners working in the field of information technology and computer science.

Proceedings of the Indian Science Congress

Reference India

The Science and Technology of Ions in Motion

Proceedings of ICTIDS 2019

Artificial Intelligence Theory, Models, and Applications

Computational Chemistry Methodology in Structural Biology and Materials Sciences

The Most Authentic Source Of Information On Higher Education In India The Handbook Of Universities, Deemed Universities, Colleges, Private Universities And Prominent Educational & Research Institutions Provides Much Needed Information On Degree And Diploma Awarding Universities And Institutions Of National Importance That Impart General, Technical And Professional Education In India. Although Another Directory Of Similar Nature Is Available In The Market, The Distinct Feature Of The Present Handbook, That Makes It One Of Its Kind, Is That It Also Includes Entries And Details Of The Private Universities Functioning Across The Country.In This Handbook, The Universities Have Been Listed In An Alphabetical Order. This Facilitates Easy Location Of Their Names. In Addition To The Brief History Of These Universities, The Present Handbook Provides The Names Of Their Vice-Chancellor, Professors And Readers As Well As Their Faculties And Departments. It Also Acquaints The Readers With The Various Courses Of Studies Offered By Each University.It Is Hoped That The Handbook In Its Present Form, Will Prove Immensely Helpful To The Aspiring Students In Choosing The Best Educational Institution For Their Career Enhancement. In Addition, It Will Also Prove Very Useful For The Publishers In Mailing Their Publicity Materials. Even The Suppliers Of Equipment And Services Required By These Educational Institutions Will Find It Highly Valuable.

In this paper, we explain classical concept of the fuzzy soft sets to express the idea of cyclic normal fuzzy neutrosopic soft G-modular structures acting on a group. Neutrosopic soft set theory is studied as an effective parametric tool to discuss with uncertainities. We also investigate the relationship between cyclic fuzzy neutrosopic soft G-modules and classical modules. We study their concerned properties in terms of soft set operations, soft image, soft pre-image, soft anti image, -inclusion of neutrosopic fuzzy soft sets and linear combinations of the vector spaces. Furthermore we show applications of this new G-modules on vector spaces with supporting proofs.

Radiation safety and risk management, a critical issue in the nuclear age, is an ongoing concern in the field of radiation health risk sciences. It is the particular mission and task of the Nagasaki University Global COE program to explore human health risks from radiation on a global scale and to come up with measures for overcoming its negative legacies. Ionizing radiation is a well-documented human cancer risk factor, and long-term health consequences in individuals exposed at a young age to such events as the Hiroshima and Nagasaki atomic bombing are now being followed up. Unique and comprehensive, this book introduces updated radiation health-related issues, including the proper collection and analysis of biological samples, cancer research, psychological effects, fair disclosure, and the effects of low-dose exposure as they apply to future public health policy. Also addressed is the need for emergency radiation medicine in case of accidents.

A.C.U. Bulletin of Current Documentation

Proceedings of the First International Symposium of the Nagasaki University Global COE Program "Global Strategic Center for Radiation Health Risk Control"

Who's Who in Science and Engineering 2008-2009

Index of Conference Proceedings

Water Resources Data for Georgia

Application of Nanotechnology in Food Science and Food Microbiology

This book is designed to convey as much information as possible in a concise and simple way to make it suitable for students, researchers and clinical medical physicists. Better meanings, codes and examples are included. Most of the basics are also covered for easy reference along with a glossary of objective-type questions. Upon completion of this textbook, the readers will gather knowledge about the physics, chemistry and biology of the human body towards cancer treatment using radiation.

Computational Chemistry Methodology in Structural Biology and Materials Sciences provides a selection of new research in theoretical and experimental chemistry, focusing on topics in the materials science and biological activity. Part 1, on Computational Chemistry Methodology in Biological Activity, of the book emphasizes presents new developments in the domain of theoretical and computational chemistry and its applications to bioactive molecules. It looks at various aspects of density functional theory and other issues. Part 2, on Computational Chemistry Methodology in Materials Science, presents informative new research on computational chemistry as applied to materials science. The wide range of topics regarding the application of theoretical and experimental chemistry and materials science and biological domain will be valuable in the context of addressing contemporary research problems.

Distance Education and Environmental Education

Recent Advances in Intelligent Technologies and Information Systems

Nanotechnology for Antimicrobials

Physics of Semiconductor Devices

Advanced Materials for Emerging Technologies : Kandy, Sri Lanka, 12-16 June 2006

Transport and Accumulation in Plants