

## Scientific Research And Essays Journal

The design and study of materials is a pivotal component to new discoveries in the various fields of science and technology. By better understanding the components and structures of materials, researchers can increase its applications across different industries. Materials Science and Engineering: Concepts, Methodologies, Tools, and Applications is a compendium of the latest academic material on investigations, technologies, and techniques pertaining to analyzing the synthesis and design of new materials. Through its broad and extensive coverage on a variety of crucial topics, such as nanomaterials, biomaterials, and relevant computational methods, this multi-volume work is an essential reference source for engineers, academics, researchers, students, professionals, and practitioners seeking innovative perspectives in the field of materials science and engineering. The aim of this book is to give a treatment of the actively developed domain of Ubiquitous computing. Originally proposed by Mark D. Weiser, the concept of Ubiquitous computing enables a real-time global sensing, context-aware informational retrieval, multi-modal interaction with the user and enhanced visualization capabilities. In effect, Ubiquitous computing environments give extremely new and futuristic abilities to look at and interact with our habitat at any time and from anywhere. In that domain, researchers are confronted with many foundational, technological and engineering issues which were not known before. Detailed cross-disciplinary coverage of these issues is really needed today for further progress and widening of application range. This book collects twelve original works of researchers from eleven countries, which are clustered into four sections: Foundations, Security and Privacy, Integration and Middleware, Practical Applications.

The five-volume set LNCS 7971-7975 constitutes the refereed proceedings of the 13th International Conference on Computational Science and Its Applications, ICCSA 2013, held in Ho Chi Minh City, Vietnam in June 2013. The 248 revised papers presented in five tracks and 33 special sessions and workshops were carefully reviewed and selected. The 46 papers included in the five general tracks are organized in the following topical sections: computational methods, algorithms and scientific applications; high-performance computing and networks; geometric modeling, graphics and visualization; advanced and emerging applications; and information systems and technologies. The 202 papers presented in special sessions and workshops cover a wide range of topics in computational sciences ranging from computational science technologies to specific areas of computational sciences such as computer graphics and virtual reality.

Abatement of Environmental Pollutants: Trends and Strategies addresses new technologies and provides strategies for environmental scientists, microbiologists and biotechnologists to help solve problems associated with the treatment of industrial wastewater. The book helps readers solve pollution challenges using microorganisms in bioremediation technologies, including discussions on global technologies that have been adopted for the treatment of industrial wastewater and sections on the lack of proper management. Moreover, limited space, more stringent waste disposal regulations and public consciousness have made the present techniques expensive and impractical. Therefore, there is an urgent need to develop sustainable management technologies for industries and municipalities. To remove the damaging effect of organic pollutants on the environment, various new technologies for their degradation have been recently discovered. Covers bioremediation of petrochemical pollutants, such as Benzene, Toluene, Xylene, Ethyl Benzene, and phenolic compound Includes discussions on genetic engineering microbes and their potential in pollution abatement Contains information on plant growth promoting bacteria and their role in environment management

The CSE Manual for Authors, Editors, and Publishers  
Essays from the Cutting Edge  
Indigenous Knowledge of Namibia  
Concepts, Methodologies, Tools, and Applications  
Research Anthology on Recent Advancements in Ethnopharmacology and Nutraceuticals  
Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes  
Lignocellulosic Biomass in Biotechnology highlights significant aspects of lignocellulose biotechnology, demonstrating its potential value from an application perspective. Sections cover the physico-chemical characteristics of lignocellulosic biomass, the physical and structural properties of hemicelluloses, celluloses and lignin, sources of lignocellulosic biomass, microorganisms and their lignocellulytic enzymes, enzymatic degradation of lignocellulosic biomass, regulation of cell-wall degrading enzymes, barriers to lignocellulose biodegradation, biotechnological importance of lignocellulosic biomass, lignocellulosic pretreatment techniques, bioprocessing of lignocellulosic biomass, lignocellulosic biomass pretreatment methods, valuable chemicals and products, techno-economic evaluation and future perspectives. This book answers questions surrounding the biotechnology of lignocelluloses. It is ideal for both students and professionals in the industry supply chain. It also provides a reference for researchers and administrators engaged in the utilization and industrial development of agricultural resources. Presents recent advances in the processing of lignocellulosic biomass Highlights significant aspects of lignocelluloses biotechnology, with an emphasis on its potential value from an application perspective Looks at the cost of enzymes and the potential of modern approaches that could be employed to reduce the cost Summarizes the new achievements that have emerged in the biotechnology of lignocelluloses in recent years Discusses a wide range of topics related to the fundamental and applied aspects of lignocellulose utilization, processing and biotechnological applications

Plants are frequently exposed to unfavorable and adverse environmental conditions known as abiotic stressors. These factors can include salinity, drought, heat, cold, flooding, heavy metals, and UV radiation which pose serious threats to the sustainability of crop yields. Since abiotic stresses are major constraints for crop production, finding the approaches to enhance stress tolerance is crucial to increase crop production and increase food security. This book discusses approaches to enhance abiotic stress tolerance in crop plants on a global scale.

Plants scientists and breeders will learn how to further mitigate plant responses and develop new crop varieties for the changing climate.  
The Handbook of Irrigation System Selection for Semi-Arid Regions compares the various types of available irrigation systems for different regions and conditions, and explains how to analyze field data to determine the suitability of the land for surface, sprinkle, or drip irrigation systems. The book focuses on strategies for irrigation development and management and examines deficit irrigation and partial root-zone drying systems. Also, solute leaching modeling under different irrigation systems, soil moisture conditions, and organic fertilizer application in arid areas are discussed. Further, it examines multi-criteria decision making for irrigation management and the appraisal of agricultural lands for irrigation in hot, sub-humid regions. Features: Presents comparative analysis to aid in the selection of the most appropriate types of irrigation systems according to land characteristics. Includes numerous practical case studies. Offers parametric evaluation systems for irrigation purposes. Considers data from semi-arid zones, each with different sub-climates. Focusing on semi-arid land, the book highlights parametric evaluation systems for irrigation purposes, along with the use of analytical hierarchy processes integrated with GIS to determine which systems are best suited. This comprehensive and well-illustrated handbook will be of great interest to students, professionals, and researchers involved with all aspects of irrigation in semi-arid regions.

As the global population grows and many developing countries modernize, the importance of water supply and wastewater treatment becomes a much greater factor in the welfare of nations. Clearly, in today ' s world the competition for water resources coupled with the unfortunate commingling of wastewater discharges with freshwater supplies creates additional pressure on treatment systems. Recently, researchers focus on wastewater treatment by difference methods with minimal cost and maximum efficiency. This volume of the Wastewater Engineering: Advanced Wastewater Treatment Systems is a selection of topics related to physical-chemical and biological processes with an emphasis on their industrial applications. It gives an overview of various aspects in wastewater treatments methods including topics such as biological, bioremediation, electrochemical, membrane and physical-chemical applications. Experts in the area of environmental sciences from diverse institutions worldwide have contributed to this book, which should prove to be useful to students, teachers, and researchers in the disciplines of wastewater engineering, chemical engineering, environmental engineering, and biotechnology. We gratefully acknowledge the cooperation and support of all the contributing authors.

Essays & Bibliographic Sources on Research Design and Methods  
Data-Driven Optimization of Manufacturing Processes  
Teaching Geographic Information Science and Technology in Higher Education  
DARWIN AND MODERN SCIENCE  
Scientific Style and Format  
Transactions on Computational Science XXI

**Geographic Information Science and Technology (GISc&T) has been at the forefront of education innovation in geography and allied sciences for two decades. Teaching Geographic Information Science and Technology in Higher Education is an invaluable reference for educators and researchers working in GISc&T, providing coverage of the latest innovations in the field and discussion of what the future holds for GI Science education in the years to come. This book clearly documents teaching innovations and takes stock of lessons learned from experience in the discipline. The content will be of interest both to educators and researchers working in GISc&T, and to educators in other related fields. More importantly, this book also anticipates some of the opportunities and challenges in GI Science and Technology education that may arise in the next decade. As such it will be of interest to chairs, deans, administrators, faculty in other subfields, and educators in general. Innovative book taking a look at recent innovations and teaching developments in the course provision of GI Science and Technology in higher education. Edited by leaders in the field of GISc&T who have been at the forefront of education innovation in GI Science and allied science subjects. Provides coverage of GISc & Technology in a range of institutional settings from an international perspective at all levels of higher education. An invaluable text for all educators within the field of GISc&T and allied subjects with advice from experts in the field on best practice. Includes coverage and practical advice on curriculum design, teaching with GIS technology, distance and eLearning with global examples from leading academics in the field.**

**Maize is among the most widely spread and widely used crops of the world, used for cereals for over 4 billion humans, as food for farm animals, and as a source material for biofuel production. Yet there are relatively few books on the cropping system of this important crop. This book, Maize Agroecosystem, is a concise treatise dealing with agronomy, soil fertility, and productivity of maize. The information is global in nature and considers recent developments in all maize cropping belts. The "global maize agroecosystem" is a conglomerate of several "maize cropping belts" that flourish on different continents. The impact of nutrient management on the productivity of maize agroecosystems is the main focus of this book. The book includes the history of maize growing, the kinds of soil needed, nutrient dynamics, the use of soil organic matter, the physiology and genetics of maize, and integrated nutrient management. It presents comprehensive knowledge regarding the physicochemical dynamics of the three major nutrients: nitrogen, phosphorus, and potassium. Also covered is how fertilizers impinge on soils of maize farms and their impact on soil and groundwater quality. The impact of crop genotype on soil nutrient dynamics and productivity is also highlighted. The information provided here will be highly useful to students at colleges and universities in the fields of agricultural sciences and environmental science and ecology, and the book also functions as valuable resource for researchers and professors in crop science. Several figures and tables are included that describe and summarize the impact of various agronomic/fertilizer management procedures on crop productivity.**

**This book presents the relevant consequences of recently discovered and interdisciplinary phenomena, triggered by local mechanical instabilities. In particular, it looks at emissions from nano-scale mechanical instabilities such as fracture, turbulence, buckling and cavitation, focussing on vibrations at the TeraHertz frequency and Piezonuclear reactions. Future applications for this work could include earthquake precursors, climate change, energy production and cellular biology. A series of fracture experiments on natural rocks demonstrates that the TeraHertz vibrations are able to induce fission reactions on medium weight elements accompanied by neutron emissions. The same phenomenon appears to have occurred in several different situations, particularly in the chemical evolution of the Earth and Solar System, through seismicity (rocky planets) and storms (gaseous planets). As the authors explore, these phenomena can also explain puzzles related to the history of our planet, like the ocean formation or the primordial carbon pollution, as well as scientific mysteries, like the so-called "cold nuclear fusion" or the correct radio-carbon dating of organic materials, such as the Turin Shroud. In biology, Piezonuclear reactions could explain the mechanism that governs the so-called "sodium-potassium pump" and more in general, the metabolic processes. Scientists engaged in seismology, geophysics, geochemistry, climatology, planetology, condensed matter physics and biology, as well as those involved in theoretical and applied mechanics, will all appreciate the innovative work presented here in a holistic way.**

**"This book presents current developments in the multidisciplinary creation of Internet accessible remote laboratories, offering perspectives on teaching with online laboratories, pedagogical design, system architectures for remote laboratories, future trends, and policy issues in the use of remote laboratories"--Provided by publisher.**

Drug Delivery Technology  
Scalable E-Learning Tools for Engineering and Science Disciplines  
Internet Accessible Remote Laboratories: Scalable E-Learning Tools for Engineering and Science Disciplines  
Handbook of Research on Recent Developments in Materials Science and Corrosion Engineering Education  
Advances in Fig Research and Sustainable Production  
Maize Agroecosystem

*Bioenhancers have been used in Ayurveda historically and are now being investigated for their pharmacological efficacy. Herbal bioenhancers work on the gastrointestinal tract to improve absorption and drug bioavailability by acting on the drug metabolic process. Many herbal drugs show low activity due to their poor lipid solubility or improper molecular size. Piperine, gingerol, naringin, quercetin, niaziridin, glycyrrhizin, allicin, curcumin, genistein and others are able to enhance the bioavailability of active pharmaceuticals. This book details various facets of herbal bio-enhancers in a single comprehensive text.*

*The Scientific Style and Format Eighth Edition Subcommittee worked to ensure the continued integrity of the CSE style and to provide a progressively up-to-date resource for our valued users, which will be adjusted as needed on the website. This new edition will prove to be an authoritative tool used to help keep the language and writings of the scientific community alive and thriving, whether the research is printed on paper or published online.*

*This edited volume brings closer two contemporary science education research areas: Nature of Science (NOS) and Social Justice (SJ). It starts a dialogue on the characteristics of NOS for SJ with the purpose of advancing the existing discussion and creating new avenues for research. Using a variety of approaches and perspectives, the authors of the different chapters engage in a dialogue on the construct of NOS for SJ, its characteristics, as well as ways of addressing it in science classrooms. Issues addressed are related to why a school science aiming at SJ should address NOS; what NOS-related content, skills and attitudes form the basis when aiming at SJ; and how school science can address NOS for SJ. Through a set of theoretical and empirical chapters, the authors suggest answers, but they also pose new questions on what NOS for SJ can mean, and what issues need to be taken into consideration in future research and practice. Chapter "Nature of Science for Social Justice: Why, What and How?" is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com*  
*The grass or Poaceae family includes all cereal crops and forage grasses. Hence, they play a significant role in the economy of both the developed and developing world. Similar to other crop types, grasses are continuously challenged by a variety of environmental constraints. These constraints include a variety of biotic and abiotic stresses, and an enabling environment, which mainly refers to policy-related issues that affect productivity. In this book, the importance of selected cereal crops and grasses as well as associated constraints are presented. In addition, techniques proven to improve the productivity of these groups of crops are discussed. The techniques include variety development, soil and crop management practices, and biological control of fungal pathogens using different types of bacterial strains.*

Abatement of Environmental Pollutants  
Materials Science and Engineering: Concepts, Methodologies, Tools, and Applications  
13th International Conference, ICCSA 2013, Ho Chi Minh City, Vietnam, June 24-27, 2013, Proceedings, Part III  
Grasses as Food and Feed

Herbal Bioenhancers in Pharmaceuticals  
Handbook of Irrigation System Selection for Semi-Arid Regions

**Sustainable Meat Production and Processing presents current solutions to promote industrial sustainability and best practices in meat production, from postharvest to consumption. The book acts as a guide for meat and animal scientists, technologists, engineers, professionals and producers. The 12 most trending topics of sustainable meat processing and meat by-products management are included, as are advances in ingredient and processing systems for meat products, techno-functional ingredients for meat products, protein recovery from meat processing by-products, applications of blood proteins, artificial meat production, possible uses of processed slaughter co-products, and environmental considerations. Finally, the book covers the preferred technologies for sustainable meat production, natural antioxidants as additives in meat products, and facilitators and barriers for foods containing meat co-products. Analyzes the role of novel technologies for sustainable meat processing Covers how to maintain sustainability and achieve high levels of meat quality and safety Presents solutions to improve productivity and environmental sustainability Takes a proteomic approach to characterize the biochemistry of meat quality defects**

**It is a mechanics book written for materials scientists. It provides very simple basic principle written for audience with non mechanics background, so that readers who plan to adopt and integrate the mechanics in their research areas can do it the smart way. The book also has plenty examples on the simple applications of mechanics in various materials science areas: in metallurgy, in coating, in design and in materials science in general. This book is filling the gap between the concept of mechanics used in the 'mechanics world' and the concept of mechanics 'outside mechanics world'. It is perfect for researchers outside mechanics, especially in materials science, who want to incorporate the concept of mechanics in their works. It is originally a script used by a research group in materials science with no mechanics background.**

**"Eighteen of the top young scientists at work today present for the lay reader the latest developments in the fields of evolutionary psychology, neuroscience, genetic engineering, and climate science"--**

**For hundreds of years, indigenous populations have developed drugs based on medicinal plants. Many practitioners, especially advocates of traditional medicine, continue to support the use of plants and functional foods as methods by which many ailments can be treated. With relevance around the world as a complementary and alternative medicine, advancements for the use of both ethnopharmacology and nutraceuticals in disease must continually be explored, especially as society works to combat chronic illnesses, increasingly resilient infectious diseases, and pain management controversies. The Research Anthology on Recent Advancements in Ethnopharmacology and Nutraceuticals discusses the advancements made in herbal medicines and functional foods that can be used as alternative medical treatments for a variety of illness and chronic diseases. The anthology will further explain the benefits that they provide as well as the possible harm they may do without proper research on the subject. Covering topics such as food additives, dietary supplements, and physiological benefits, this text is an important resource for dieticians, pharmacists, doctors, nurses, medical professionals, medical students, hospital administrators, researchers, and academicians.**

How to Write a Good Scientific Paper  
Publications Combined: EMOTIONAL INTELLIGENCE COMPETENCIES AND MILITARY LEADERSHIP  
A Guide to the Scientific Career

## A Handbook for Social Science Field Research On Revision

Over 700 total pages .... Introduction: Leadership has often been viewed as more of an art than a science. However, the expanding field of neuroscience is confirming that leadership may be more science than art. While the thinking components of the brain have been noticeably evolving along with the pace of technology, the emotional parts are still very primitive, yet play an important role in leadership and behavior. The latest neurological, psychological, and organizational research is converging towards the fact that emotional leadership is the key ingredient to an organization ' s performance.

Successfully leading in dynamic, complex environments, making wise decisions while facing tremendous resource constraints, avoiding moral and ethical lapses, preventing failures in leadership, building healthy relationships, and fostering resiliency across the workforce is less about the hard skills of cognitive intelligence and more about the soft skills of emotional intelligence. Leaders still need foundational, cognitive skills, but they cannot lead solely from their intellect in today's interconnected world. Contains the following studies / publications: 1. EMOTIONAL INTELLIGENCE COMPETENCIES AND THE ARMY LEADERSHIP REQUIREMENTS MODEL 2. THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND LEADER PERFORMANCE 3. THE FAILURE OF SUCCESS: HOW THE BATHSHEBA SYNDROME AND EMOTIONAL INTELLIGENCE CONTRIBUTE TO THE DOWNFALL OF ARMY ORGANIZATIONAL-LEVEL LEADER 4. Emotional Intelligence: Advocating for the Softer Side of Leadership 5. Lack of Emotional Intelligence as a Factor in the Relief of US Army Commanders 6. Refinement and Validation of a Military Emotional Intelligence Training Program 7. DEVELOPING A CULTURAL INTELLIGENCE CAPABILITY 8. THE TRUST PROJECT - SYMBIOTIC HUMAN-MACHINE TEAMS: SOCIAL CUEING FOR TRUST & RELIANCE 9. Tests of Cognitive Ability

The 4th edition of this popular text presents a comprehensive review of over a century of research on information behavior. It is intended for students in information studies and disciplines interested in research on information activities. Now co-authored, this new text includes significant structural and content changes from earlier editions.

The common fig (*Ficus carica* L.) is one of the oldest fruits domesticated by humans, and is native to southwest Asia and the Mediterranean. Figs have been associated with health and prosperity since ancient times. They are rich in fibre, potassium, calcium, and iron, as well as being an important source of vitamins, amino acids, and antioxidants. In recent years, increased consumption has caused fig production to shift to new countries such as Mexico, Brazil, India, and China. However, fig is a challenging fruit crop to grow. It is susceptible to insect pests and diseases as well as injuries from abiotic stress during fruit development and ripening. As a delicate fruit it also requires complicated postharvest procedures and climate change presents additional challenges. This volume serves as a comprehensive reference for current and future practices of fig production, consumption, research and innovation, and is essential for academic researchers, and those involved in research and development in the fig industry.

Various Multiple Criteria Decision-Making (MCDM) techniques in one book: 13 MCDM techniques have been applied, namely, WSM, WPM, WASPAS, GRA, SMART, CRITIC, ENTROPY, EDAS, MOORA, AHP, TOPSIS, VIKOR, and new tools: MDEMATEL, Fuzzy MDEMATEL, Modified Fuzzy TOPSIS and Modified Fuzzy VIKOR. To date, no other book possesses these many tools. Various quantitative techniques: Different quantitative techniques have been applied, namely, Cronbach alpha, Chi-square and ANOVA (for demographic analysis), Percent Point Score and Central Tendency (response analysis), Factor Analysis, Correlation and Regression. To date, no other book possesses these many tools. Interpretive Structural Modelling: ISM has been applied for verifying MCDM results through MICMAC analysis and ISM model thus paving the way for model through SEM. Structural Equation Modelling: SEM using AMOS in PASW has been applied for model development. New MCDM techniques developed: In the process during qualitative analysis, new tools have been developed and their results have been compared with other existing MCDM tools and the results are encouraging. The new techniques are MDEMATEL, Fuzzy MDEMATEL, Modified Fuzzy TOPSIS and Modified Fuzzy VIKOR. Qualitative Model Developed: As the title says, Sustainable Green Development and Manufacturing Performance through Modern Production Techniques. It is a need-of-the-hour topic, as industries must maintain their performance (sustainable development) and, while sustaining, they have to keep in mind green issues (that is, environment-related issues, especially during the COVID-19 pandemic) and adopt advanced manufacturing and maintenance techniques. A model for this has been developed which will be helpful to both academicians and industrialists. Real-time Case Studies: Case studies in two industries of differing origins, different manufacturing sectors, different products, and comparing their units in the country of their origin and India. Dr. Chandan Deep Singh is an assistant professor in the Department of Mechanical Engineering, Punjabi University, Patiala, Punjab (India). He is a co-author of Adolescents, Family and Consumer Behaviour (Routledge, 2020) and of Manufacturing Competency and Strategic Success in the Automobile Industry (CRC Press, 2019). Dr. Harleen Kaur is a manager (HR) at DELBREC Industries, Pvt. Ltd., Chandigarh. She co-authored Adolescents, Family and Consumer Behaviour (Routledge, 2020).

Recent Advances in Grain Crops Research

Nature of Science for Social Justice

Virtues, Communication, Research, and Academic Writing

Approaches for Enhancing Abiotic Stress Tolerance in Plants

Future Science

Byproducts from Agriculture and Fisheries

*A comprehensive overview of both traditional and current knowledge on the health effects of plant based antioxidants, this book reviews medicinal and aromatic plants from around the world. It covers the different sources of antioxidants including essential oils, algae and marine microorganisms, as well as the role of abiotic and biotic stresses, endophytes, transgenic approaches in scavenging ROS and antioxidant plants used in different therapeutic systems.*

*Even students capable of writing excellent essays still find their first major political science research paper an intimidating experience. Crafting the right research question, finding good sources, properly summarizing them, operationalizing concepts and designing good tests for their hypotheses, presenting and analyzing quantitative as well as qualitative data are all tough-going without a great deal of guidance and encouragement. Writing a Research Paper in Political Science breaks down the research paper into its constituent parts and shows students what they need to do at each stage to successfully complete each component until the paper is finished. Practical summaries, recipes for success, worksheets, exercises, and a series of handy checklists make this a must-have supplement for any writing-intensive political science course. New to the Fourth Edition: A non-causal research paper woven throughout the text offers explicit advice to guide students through the research and writing process. Updated and more detailed discussions of plagiarism, paraphrases, "drop-ins," and "transcripts" help to prevent students from misusing sources in a constantly changing digital age. A more detailed discussion of "fake news" and disinformation shows students how to evaluate and choose high quality sources, as well as how to protect oneself from being fooled by bad sources. Additional guidance for writing abstracts and creating presentations helps students to understand the logic behind abstracts and prepares students for presentations in the classroom, at a conference, and beyond. A greater emphasis on the value of qualitative research provides students with additional instruction on how to do it.*

*All machining process are dependent on a number of inherent process parameters. It is of the utmost importance to find suitable combinations to all the process parameters so that the desired output response is optimized. While doing so may be nearly impossible or too expensive by carrying out experiments at all possible combinations, it may be done quickly and efficiently by using computational intelligence techniques. Due to the versatile nature of computational intelligence techniques, they can be used at different phases of the machining process design and optimization process. While powerful machine-learning methods like gene expression programming (GEP), artificial neural network (ANN), support vector regression (SVM), and more can be used at an early phase of the design and optimization process to act as predictive models for the actual experiments, other metaheuristics-based methods like cuckoo search, ant colony optimization, particle swarm optimization, and others can be used to optimize these predictive models to find the optimal process parameter combination. These machining and optimization processes are the future of manufacturing. Data-Driven Optimization of Manufacturing Processes contains the latest research on the application of state-of-the-art computational intelligence techniques from both predictive modeling and optimization viewpoint in both soft computing approaches and machining processes. The chapters provide solutions applicable to machining or manufacturing process problems and for optimizing the problems involved in other areas of mechanical, civil, and electrical engineering, making it a valuable reference tool. This book is addressed to engineers, scientists, practitioners, stakeholders, researchers, academicians, and students interested in the potential of recently developed powerful computational intelligence techniques towards improving the performance of machining processes.*

*A concise, easy-to-read source of essential tips and skills for writing research papers and career management In order to be truly successful in the biomedical professions, one must have excellent communication skills and networking abilities. Of equal importance is the possession of sufficient clinical knowledge, as well as a proficiency in conducting research and writing scientific papers. This unique and important book provides medical students and residents with the most commonly encountered topics in the academic and professional lifestyle, teaching them all of the practical nuances that are often only learned through experience. Written by a team of experienced professionals to help guide younger researchers, A Guide to the Scientific Career: Virtues, Communication, Research and Academic Writing features ten sections composed of seventy-four chapters that cover: qualities of research scientists; career satisfaction and its determinants; publishing in academic medicine; assessing a researcher's scientific productivity and scholarly impact; manners in academics; communication skills; essence of collaborative research; dealing with manipulative people; writing and scientific misconduct: ethical and legal aspects; plagiarism; research regulations, proposals, grants, and practice; publication and resources; tips on writing every type of paper and report; and much more. An easy-to-read source of essential tips and skills for scientific research Emphasizes good communication skills, sound clinical judgment, knowledge of research methodology, and good writing skills Offers comprehensive guidelines that address every aspect of the medical student/resident academic and professional lifestyle Combines elements of a career-management guide and publication guide in one comprehensive reference source Includes selected personal stories by great researchers, fascinating writers, inspiring mentors, and extraordinary clinicians/scientists A Guide to the Scientific Career: Virtues, Communication, Research and Academic Writing is an excellent interdisciplinary text that will appeal to all medical students and scientists who seek to improve their writing and communication skills in order to make the most of their chosen career.*

Biodegradable Green Composites

A Survey of Research on Information Seeking, Needs, and Behavior

Writing a Research Paper in Political Science

Sustainable Green Development and Manufacturing Performance through Modern Production Techniques

Computational Science and Its Applications -- ICCSA 2013

Ubiquitous Computing

**Ranging from biofuels to building materials, and from cosmetics to pharmaceuticals, the list of products that may be manufactured using discards from farming and fishery operations is extensive. Byproducts from Agriculture and Fisheries examines the procedures and technologies involved in this process of reconstitution, taking an environmentally aware approach as it explores the developing role of value-added byproducts in the spheres of food security, waste management, and climate control. An international group of authors contributes engaging and insightful chapters on a wide selection of animal and plant byproducts, discussing the practical business of byproduct recovery within the vital contexts of shifting socio-economic concerns and the emergence of green chemistry. This important text: Covers recent developments, current research, and emerging technologies in the fields of byproduct recovery and utilization Explores potential opportunities for future research and the prospective socioeconomic benefits of green waste management Includes detailed descriptions of procedures for the transformation of the wastes into of value-added food and non-food products With its combination of practical instruction and broader commentary, Byproducts from Agriculture and Fisheries offers essential insight and expertise to all students and professionals working in agriculture, environmental science, food science, and any other field concerned with sustainable resources. This guidebook is essential reading for all professionals in the field.**

**Many scientists and engineers consider themselves poor writers or find the writing process difficult. The good news is that you do not have to be a talented writer to produce a good scientific paper, but you do have to be a careful writer. In particular, writing for a peer-reviewed scientific or engineering journal requires learning and executing a specific formula for presenting scientific work. This book is all about teaching the style and conventions of writing for a peer-reviewed scientific journal. From structure to style, titles to tables, abstracts to author lists, this book gives practical advice about the process of writing a paper and getting it published.**

**Indigenous knowledge is the dynamic information base of a society, facilitating communication and decision-making. It is the cornerstone of many modern-day innovations in science and technology. It is also a ready and valuable resource for sustainable and resilient livelihoods, and attracts increasing public interest due to its applications in bio-technology, health, bioprospecting, pharmaceuticals, agriculture, food preparation, mathematics and astronomy. INDIGENOUS KNOWLEDGE OF NAMIBIA is a fascinating compendium aimed at a wide readership of academics and students, government officials, policy makers, and development partners. The 17 chapters examine the indigenous knowledge of medicinal plants for treating HIV/AIDS, malaria, cancer, and other microbial infections of humans and livestock; indigenous foods; coping and response strategies in dealing with human-wildlife conflicts, floods, gender, climate change and the management of natural resources. A new rationalisation of adolescent customary and initiation ceremonies is recommended in response to the HIV/AIDS pandemic; and a case study of the San people of Namibia speaks to the challenges of harmonising modern education with that of indigenous people.**

**Wastewater Engineering: Advanced Wastewater Treatment Systems**

**Mobile Learning Applications in Early Childhood Education**

**Strategic Science Communication**

**Integration of Mechanics into Materials Science Research: A Guide for Material Researchers in Analytical, Computational and Experimental Methods**

**Special Issue on Innovations in Nature-Inspired Computing and Applications**

**The Only Writing That Counts**

The latest research innovations and enhanced technologies have altered the discipline of materials science and engineering. As a direct result of these developments, new trends in Materials Science and Engineering (MSE) pedagogy have emerged that require a Handbook of Research on Recent Developments in Materials Science and Corrosion Engineering Education brings together innovative and current advances in the curriculum design and course content of MSE education programs. Focusing on the application of strategies, pedagogical frameworks, and career preparation techniques, this book is an essential reference source for academicians, engineering practitioners, researchers, and industry professionals interested in emerging and future trends in MSE training and education.

This, the 21st issue of the Transactions on Computational Science journal, edited by Ajith Abraham, is devoted to the topic of nature-inspired computing and applications. The 15 full papers included in the volume focus on the topics of neurocomputing, evolutionary computing, swarm intelligence, artificial immune systems, membrane computing, computing with words, artificial life and hybrid approaches.

A trusted editor turns his attention to the most important part of writing: revision. So you've just finished writing something? Congratulations! Now revise it. Because revision is about getting from good to better, and it's only finished when you decide to stop.

In On Revision, William Germano shows authors how to take on the most critical stage of writing anything: rewriting it. For more than twenty years, thousands of writers have turned to Germano for his insider's take on navigating the world of publishing. A veteran of the book industry, Germano knows what editors want and what writers need to know: Revising is not just correcting typos. Revising is about listening and seeing again. Revising is a rethinking of the principles from the ground up to understand what something, why they're going somewhere, and why they're taking the reader along with them. On Revision steps back to take in the big picture, showing authors how to hear their own writing voice and how to reread their work as if they didn't write it. On Revision shows you how to know when your writing is actually done—and, until it is, what you need to do to get it there.

This collection of essays and bibliographies will provide both novice and experienced scholars with valuable and accessible insights as well as references to a select list of critical texts pertaining to a wide array of social science methods and practices useful in the social science fieldwork. In essays on ethnography to case study, archival research, oral history, surveys, secondary data analysis, and ethics, leading scholars in Anthropology, Economics, Geography, History, Political Science, and Sociology reflect upon the methodological approaches they use in their own and other disciplines. Each author provides a window on the method with vivid examples of how they were able to confront the realities of their research topics and study sites by expanding their methodological skills. This refreshing new collection is a supplemental text for upper level undergraduate as well as graduate social science methods courses, where there is a growing demand for multiple methods or mixed methods training.

A Practical Guide to Inquiry, Structure, and Methods

Sustainable Meat Production and Processing

Adding Value for Food, Feed, Pharma and Fuels

Lignocellulosic Biomass in Biotechnology

Looking for Information

Plants as a Source of Natural Antioxidants

**This book comprehensively addresses surface modification of natural fibers to make them more effective, cost-efficient, and environmentally friendly. Topics include the elucidation of important aspects surrounding chemical and green approaches for the surface modification of natural fibers, the use of recycled waste, properties of biodegradable polyesters, methods such as electrospinning, and applications of hybrid composite materials.**

**Cultivation of grain crops has been rightly recognized as one of the main drivers in shaping human civilizations. Considering their key role in fulfilling a major portion of the global food needs, grain crops are the most widely grown crops around the world. Unfortunately, like many other agronomic crops, grain crops are quite vulnerable to climate change and this has posed multifaceted threats to agricultural sustainability. To add to the menace, the deteriorating quantity and quality of both land and water as primary factors of production are further aggravating the scenario. Confronting such challenges demands innovative adaptation strategies through intensification of grain crop production that can ensure grain self-sufficiency worldwide.**

**Mobile technologies combined with an interdisciplinary approach to knowledge and organization of learning experiences that are meaningful to children could create a creative and interactive learning environment different from that of traditional teaching. Making good use of mobile learning with appropriate devices will increase the learning motivations of the students and help them bring about positive performance. Mobile Learning Applications in Early Childhood Education is a collection of innovative research on the methods and applications of mobile learning techniques and strategies within diversified teaching settings. While highlighting topics including computational thinking, ubiquitous learning, and social development, this book is ideally designed for researchers, teachers, parents, curriculum developers, instructional designers, academicians, students, and practitioners seeking current research on the application of mobile technology within child education.**

Trends and Strategies

A Guide to Setting the Right Objectives for More Effective Public Engagement

Nutrient Dynamics and Productivity

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