

D K Singh Fundamentals Of Manufacturing

Fundamentals of Ocular Motility and Strabismus Fundamentals of Ion-Irradiated Polymers The Business Book Simple Methods to Study Pedology and Edaphology of Indian Tropical Soils Manufacturing Technology: Internal Combustion Engines Radiation Curing Halophiles Vascularization for Tissue Engineering and Regenerative Medicine Fundamentals of Manufacturing Engineering Irrigation and Water Resources Engineering Fundamentals of Bioinformatics and Computational Biology Physical Geography Manufacturing Process Biomaterials Manufacturing Technology {A} Guidebook to Mechanism in Organic Chemistry Indian Books in Print Environmental Protection Strategies for Sustainable Development Mechanical Vibrations Tuberculosis and the Tubercle Bacillus Food Processing Technology The Code Book Springer Handbook of Electronic and Photonic Materials E-encyclopedia Advances in Computing and Data Sciences Laser-Induced Breakdown Spectroscopy My Very Important World Sensing and Monitoring Technologies for Mines and Hazardous Areas Strength of Materials, Third Edition Fundamentals of Mathematical Statistics Building Construction The Idea of the Superman in the Plays of G.B. Shaw Fundamentals of Manufacturing Engineering, Third Edition FUNDAMENTALS OF OPTICS, SECOND EDITION Techno-Societal 2018 Fundamental of Digital Electronics And Microprocessors Fundamentals of Manufacturing For Engineers Fundamentals of Robotics Textbook of Field Crops Production

Fundamentals of Ocular Motility and Strabismus

This book starts with an introduction to robots and robotics. Forward and inverse kinematics problems of serial manipulators have been dealt in details. After discussing trajectory planning schemes, inverse dynamics problem of serial manipulator has been solved. A separate chapter has been devoted to the analysis of wheeled robot. It then concentrates on analysis of two-legged robot. The working principles of different types of sensors used in robots have been explained in one chapter. Various steps involved in robot vision have then been discussed in detail. The last chapter deals with different motion planning schemes of robots. It has been written to fulfill the requirements of a large number of readers belonging to various disciplines of engineering. It will be very much helpful to the students, scientists and practicing engineers.

Fundamentals of Ion-Irradiated Polymers

This book discusses how research efforts have established an organic link between pedology and edaphology of five pedogenetically important soil orders as Alfisols, Mollisols, Ultisols, Vertisols and Inceptisols of tropical Indian environments. The book highlights how this new knowledge was gained when research efforts were complemented by high resolution mineralogical, micro morphological and age-control tools. This advancement in basic and fundamental knowledge on Indian

tropical soils makes it possible to develop several index soil properties as simple methods to study their pedology and edaphology. More than one-third of the world's soils are tropical soils. Thus the recent advances in developing simple and ingenious methods to study pedology and edaphology of Indian tropical soils may also be adopted by both graduate students and young soil researchers to aid in the development of a national soil information system to enhance crop productivity and maintain soil health in the 21st century.

The Business Book

Laser induced breakdown spectroscopy (LIBS) is basically an emission spectroscopy technique where atoms and ions are primarily formed in their excited states as a result of interaction between a tightly focused laser beam and the material sample. The interaction between matter and high-density photons generates a plasma plume, which evolves with time and may eventually acquire thermodynamic equilibrium. One of the important features of this technique is that it does not require any sample preparation, unlike conventional spectroscopic analytical techniques. Samples in the form of solids, liquids, gels, gases, plasmas and biological materials (like teeth, leaf or blood) can be studied with almost equal ease. LIBS has rapidly developed into a major analytical technology with the capability of detecting all chemical elements in a sample, of real-time response, and of close-contact or stand-off analysis of targets. The present book has been written by active specialists in this field, it includes the basic principles, the latest developments in instrumentation and the applications of LIBS. It will be useful to analytical chemists and spectroscopists as an important source of information and also to graduate students and researchers engaged in the fields of combustion, environmental science, and planetary and space exploration.

* Recent research work * Possible future applications * LIBS Principles

Simple Methods to Study Pedology and Edaphology of Indian Tropical Soils

Can today's innovative practices and molecular tools tame this ancient disease? One third of the world's population is infected with tuberculosis (TB), with about 10 million new cases annually. To combat TB and its agent, Mycobacterium tuberculosis, the World Health Organization launched The End TB Strategy, which aims to slash the suffering and cost of TB by 2035. This makes the second edition of Tuberculosis and the Tubercle Bacillus, edited by Jacobs, McShane, Mizrahi, and Orme, an extremely valuable resource for scientists and clinicians. The editors have gathered their colleagues from around the world to present the latest on the molecular biology of M. tuberculosis and related species, the host-pathogen interactions that enable invasion, and the host's immune response to M. tuberculosis infection. The basic, clinical, and translational research presented in this book supports the goals of WHO's End TB Strategy by driving toward the development of effective vaccines, rapid molecular diagnostics, and anti-TB drugs. Creating an effective tuberculosis vaccine. Understand the innate and adaptive immune response to M. tuberculosis infection, its study in established animal

models, and how this information is being used to develop new vaccines against TB. Formulating new antituberculosis drugs. Learn the challenges and methods for evaluating new drugs in preclinical trials with a focus on drugs that work against "persisters" and those that act on the electron transport complex and ATP synthase of *M. tuberculosis*. Overcoming the challenges of diagnosing tuberculosis. Review new diagnostic tools that are simple, rapid, affordable, specific, sensitive, and safe, including molecular-based diagnostic methods such as GeneXpert MTB/RIF. Using molecular, genomic, and bioinformatics tools to understand the biology and evolution of *Mycobacterium*. Explore current research on the molecular mechanisms that *M. tuberculosis* uses to evade the immune system, enter a state of nonreplicating persistence, and become reactivated. The second edition of *Tuberculosis and the Tubercle Bacillus* presents the latest research on a microorganism that is exquisitely well adapted to its human host. This pathogen continues to confound scientists, clinicians, and public health specialists, who will all find much valuable information in this comprehensive set of reviews.

Manufacturing Technology:

Especially useful for those in mechanical, production and industrial engineering disciplines, this book provides a comprehensive introduction to materials and their properties. It begins by discussing ferrous and non-ferrous materials and their heat treatment and then moves on to discuss non-conventional materials. The book discusses the processes of casting and jointing as well as welding. Additional topics include forming operation, cutting tool materials, solid stoke welding, the theory of metal cutting, machining operations, and design considerations in joining processes. The book concludes with a section on powder metallurgy and metrology.

Internal Combustion Engines

Our world is an amazing place. It's full of rivers, mountains, animals, and too many other amazing places to count. But that's not all. There's also families, friends, music, technology, language, games, and all other things that make life wonderful. This exciting children's book is a celebration of our world and what it's like to live in it. Unlike an atlas, this encyclopedia of discovery will entertain, educate, and inspire readers to wonder about the world around them. On one page they'll read about their body and brain, on another they'll learn about languages, sporting events, or the environment, and on others, they can marvel at wonders of the Earth such as fiery volcanoes, sprawling cities, or a place called "The Chocolate Hills." *My Very Important World* allows readers to delight in discovering where the coldest place on Earth is, how many languages there are, why they sometimes feel scared, and much, much more. There's a big wide world out there - so turn the pages to explore it.

Radiation Curing

ALERT: Before you purchase, check with your instructor or review your course syllabus to ensure that you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a CourseID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products. Packages Access codes for Pearson's MyLab & Mastering products may not be included when purchasing or renting from companies other than Pearson; check with the seller before completing your purchase. Used or rental books If you rent or purchase a used book with an access code, the access code may have been redeemed previously and you may have to purchase a new access code. Access codes Access codes that are purchased from sellers other than Pearson carry a higher risk of being either the wrong ISBN or a previously redeemed code. Check with the seller prior to purchase. -- The science of building construction and design is evolving more quickly than ever before. The second edition of this outstanding text builds on the previous version. It incorporates the latest updates available, features hundreds of new pieces of artwork, and is now in FULL COLOR! Written by an author team with decades of experience in architecture, building construction, engineering, and teaching, Building Construction: Principles, Materials & Systems 2nd Edition is a comprehensive and fully illustrated introduction to construction methods and materials. Continuing on with the books unique organization, Principles of Construction are covered in Part One and Materials and Systems of Construction are covered in Part Two. Emphasizing a visual approach to learning, it includes more than 1,400 original illustrations and an extra large trim size (9" x 12") that provides an open and inviting layout that readers are sure to appreciate. Plus! A completely revamped and expanded companion website, "MyConstructionKit", is also available!

Halophiles

This textbook will be welcomed throughout engineering education as the one-stop teaching text for students of manufacturing. It takes the student through the fundamental principles and practices of modern manufacturing processes in a lively and informative fashion. Topics include casting, joining, cutting, metal deformation processes, surface treat

Vascularization for Tissue Engineering and Regenerative Medicine

The Business Book clearly and simply explains all of the key theories that have shaped the world of business, management, and commerce. Using easy-to-follow graphics and artworks, succinct quotations, and thoroughly accessible text, The Business Book introduces the would-be entrepreneur and general reader alike to the work of great commercial thinkers, leaders, and gurus. The Business Book includes: - Almost 100 quotations from the great business thinkers and gurus - Information on every facet of business management, including alternative business models, with real life examples from the marketplace - A structure that takes the reader through every stage of business strategy, from start-up to delivering the

goods The clear and concise summaries, graphics, and quotations in The Business Book will help even the complete novice understand the key ideas behind business success.

Fundamentals of Manufacturing Engineering

Irrigation and Water Resources Engineering

Fundamentals of Bioinformatics and Computational Biology

Presented in two parts, this first comprehensive overview addresses all aspects of energetic ion irradiation of polymers. Earlier publications and review articles concentrated on selected topics only. And the need for such a work has grown with the dramatic increase of research and applications, such as in photoresists, waveguides, and medical dosimetry, during the last decade. The first part, Fundamentals of Ion Irradiation of Polymers covers the physical, chemical and instrumental fundamentals; treats the specific irradiation mechanisms of low- and high-energy ions (including similarities and differences); and details the potential for future technological application. All the new findings are carefully analyzed and presented in a systematic way, while open questions are identified.

Physical Geography

Manufacturing Process

This Is An In-Depth Study Of Bernard Shaw S Concept Of The Superman, A Study Remarkable For Its Readability And Scholarly Treatment Of The Sub-ject Matter. Dr. Singh Is Deservedly A Well Known Author Distinguished For His Wide Reading In Indian And European Literary Traditions And Literatures, Particularly Of Modern Irish And English Literatures. He Is Not Oblivious Of Darwin, Bergson, Nietzsche Lamarck And Aurbindo, All Of Whom Have Treated This Concept In Their Own Style And Form, But Not In A Style More Pellucid Than Dr. Singh S. And It Is This Style That Makes This Book Not Only Profound But Also Exceedingly Readable By Scholars And Common Readers Alike. Shaw Was Indebted To Such Writers As Neitzsche For The Idea Of Superman. His Interest In Socialism Was A Result Of His Close Association With Sidney Webb. Such Ideas As These Have Been Lucidly Brought Out In The Pre-sent Book, Which Is A Storehouse Of Dispassionate And Balanced Informa-tion About Shaw. Those Interested In Perfecting Their Modus Criticus And Maturing Their Critical

Sensibility Will Find This Book Extremely Useful.

Biomaterials

A to Z answers on all internal combustion engines! When you work with 4-stroke, 2-stroke, spark-ignition, or compression-ignition engines, you'll find fast answers on all of them in V. Ganesan's Internal Combustion Engines. You get complete fingertip data on the most recent developments in combustion & flame propagation, engine heat transfer, scavenging & engine emission, measurement & testing techniques, environmental & fuel economy regulations, & engine design. Plus the latest on air-standard, fuel-air, & actual cycles, fuels, carburetion, injection, ignition, friction & lubrication, cooling, performance, & more.

Manufacturing Technology

This new edition of Manufacturing Technology retains the flavour of the first edition by providing readers with comprehensive coverage of theory with a diverse array of exercises. Designed for extensive practice and self study, this book presents t

{A} Guidebook to Mechanism in Organic Chemistry

Striking a balance between the scientific and technological aspects of radiation curing, this work includes both a summary of current knowledge as well as many chapters which present the first comprehensive accounts of their subjects.

Indian Books in Print

Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. The subject-matter in the entire book has been re-written in the light of numerous criticisms and suggestions received from the users of the earlier editions in India and abroad. The basis of this revision has been the emergence of new literature on the subject, the constructive feedback from students and teaching fraternity, as well as those changes that have been made in the syllabi and/or the pattern of examination papers of numerous universities. Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally

written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. The subject-matter in the entire book has been re-written in the light of numerous criticisms and suggestions received from the users of the earlier editions in India and abroad. The basis of this revision has been the emergence of new literature on the subject, the constructive feedback from students and teaching fraternity, as well as those changes that have been made in the syllabi and/or the pattern of examination papers of numerous universities. Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. The subject-matter in the entire book has been re-written in the light of numerous criticisms and suggestions received from the users of the earlier editions in India and abroad. The basis of this revision has been the emergence of new literature on the subject, the constructive feedback from students and teaching fraternity, as well as those changes that have been made in the syllabi and/or the pattern of examination papers of numerous universities. Some prominent additions are given below: 1. Variance of Degenerate Random Variable 2. Approximate Expression for Expectation and Variance 3. Lyapounov's Inequality 4. Holder's Inequality 5. Minkowski's Inequality 6. Double Expectation Rule or Double-E Rule and many others

Environmental Protection Strategies for Sustainable Development

This two-volume set (CCIS 1045 and CCIS 1046) constitutes the refereed proceedings of the Third International Conference on Advances in Computing and Data Sciences, ICACDS 2019, held in Ghaziabad, India, in April 2019. The 112 full papers were carefully reviewed and selected from 621 submissions. The papers are centered around topics like advanced computing, data sciences, distributed systems organizing principles, development frameworks and environments, software verification and validation, computational complexity and cryptography, machine learning theory, database theory, probabilistic representations.

Mechanical Vibrations

This new edition of Manufacturing Technology retains the flavour of the first edition by providing readers with comprehensive coverage of theory with a diverse array of exercises. Designed for extensive practice and self study, this book presents theory in an encapsulated format for quick reading. Objective questions and numerical problems are

accompanied by their solutions to aid understanding.

Tuberculosis and the Tubercle Bacillus

Widely regarded as a standard work in its field, this book introduces the range of processing techniques that are used in food manufacturing. It explains the principles of each process, the processing equipment used, operating conditions and the effects of processing on micro-organisms that contaminate foods, the biochemical properties of foods and their sensory and nutritional qualities. The book begins with an overview of important basic concepts. It describes unit operations that take place at ambient temperature or involve minimum heating of foods. Subsequent chapters examine operations that heat foods to preserve them or alter their eating quality, and explore operations that remove heat from foods to extend their shelf life with minimal changes in nutritional quality or sensory characteristics. Finally, the book reviews post-processing operations, including packaging and distribution logistics. The third edition has been substantially rewritten, updated and extended to include the many developments in food technology that have taken place since the second edition was published in 2000. Nearly all unit operations have undergone significant developments, and these are reflected in the large amount of additional material in each chapter. In particular, advances in microprocessor control of equipment, 'minimal' processing technologies, genetic modification of foods, functional foods, developments in 'active' or 'intelligent' packaging, and storage and distribution logistics are described. Developments in technologies that relate to cost savings, environmental improvement or enhanced product quality are highlighted. Additionally, sections in each chapter on the impact of processing on food-borne micro-organisms are included for the first time.

Food Processing Technology

In his first book since the bestselling Fermat's Enigma, Simon Singh offers the first sweeping history of encryption, tracing its evolution and revealing the dramatic effects codes have had on wars, nations, and individual lives. From Mary, Queen of Scots, trapped by her own code, to the Navajo Code Talkers who helped the Allies win World War II, to the incredible (and incredibly simple) logistical breakthrough that made Internet commerce secure, The Code Book tells the story of the most powerful intellectual weapon ever known: secrecy. Throughout the text are clear technical and mathematical explanations, and portraits of the remarkable personalities who wrote and broke the world's most difficult codes. Accessible, compelling, and remarkably far-reaching, this book will forever alter your view of history and what drives it. It will also make you wonder how private that e-mail you just sent really is.

The Code Book

This new edition of a bestseller has gone through a thorough update and continues to provide a comprehensive introduction to materials and their properties. It begins by discussing ferrous and non-ferrous materials and their heat treatment and then moves on to discuss non-conventional materials. The book covers the processes of casting and jointing as well as welding. Additional topics include forming operation, cutting tool materials, solid stoke welding, the theory of metal cutting, machining operations, and design considerations in joining processes. It concludes with a new chapter on Manufacturing Tools and Workshop Applications.

Springer Handbook of Electronic and Photonic Materials

Effective from 2008-09 session, U.P.T.U. has introduced the subject of manufacturing processes for first year engineering students of all streams. This textbook covers the entire course material in a distilled form.

E-encyclopedia

The Book Irrigation And Water Resources Engineering Deals With The Fundamental And General Aspects Of Irrigation And Water Resources Engineering And Includes Recent Developments In Hydraulic Engineering Related To Irrigation And Water Resources Engineering. Significant Inclusions In The Book Are A Chapter On Management (Including Operation, Maintenance, And Evaluation) Of Canal Irrigation In India, Detailed Environmental Aspects For Water Resource Projects, A Note On Interlinking Of Rivers In India, And Design Problems Of Hydraulic Structures Such As Guide Bunds, Settling Basins Etc.The First Chapter Of The Book Introduces Irrigation And Deals With The Need, Development And Environmental Aspects Of Irrigation In India. The Second Chapter On Hydrology Deals With Different Aspects Of Surface Water Resource. Soil-Water Relationships Have Been Dealt With In Chapter 3. Aspects Related To Ground Water Resource Have Been Discussed In Chapter 4. Canal Irrigation And Its Management Aspects Form The Subject Matter Of Chapters 5 And 6. Behaviour Of Alluvial Channels And Design Of Stable Channels Have Been Included In Chapters 7 And 8, Respectively. Concepts Of Surface And Subsurface Flows, As Applicable To Hydraulic Structures, Have Been Introduced In Chapter 9. Different Types Of Canal Structures Have Been Discussed In Chapters 10, 11, And 13. Chapter 12 Has Been Devoted To Rivers And River Training Methods. After Introducing Planning Aspects Of Water Resource Projects In Chapter 14, Embankment Dams, Gravity Dams And Spillways Have Been Dealt With, Respectively, In Chapters 15, 16 And 17.The Students Would Find Solved Examples (Including Design Problems) In The Text, And Unsolved Exercises And The List Of References Given At The End Of Each Chapter Useful.

Advances in Computing and Data Sciences

Mechanical Vibrations: Modeling and Measurement describes essential concepts in vibration analysis of mechanical systems. It incorporates the required mathematics, experimental techniques, fundamentals of model analysis, and beam theory into a unified framework that is written to be accessible to undergraduate students, researchers, and practicing engineers. To unify the various concepts, a single experimental platform is used throughout the text. Engineering drawings for the platform are included in an appendix. Additionally, MATLAB programming solutions are integrated into the content throughout the text.

Laser-Induced Breakdown Spectroscopy

In the recent years there has been rapid advances in the field of Digital Electronics and Microprocessor. This book is intended to help students to keep pace with these latest developments. The Present book is revised version of earlier book 'Introduction to Digital Computers' by the same author. Now this book is written in a lucid and simple language, which gives clear explanation of basics of Digital Electronics, Computers and microprocessors.

My Very Important World

The environment of our planet is degrading at an alarming rate because of non-sustainable urbanization, industrialization and agriculture. Unsustainable trends in relation to climate change and energy use, threats to public health, poverty and social exclusion, demographic pressure and ageing, management of natural resources, biodiversity loss, land use and transport still persist and new challenges are arising. Since these negative trends bring about a sense of urgency, short term action is required, whilst maintaining a longer term perspective. The main challenge is to gradually change our current unsustainable consumption and production patterns and the nonintegrated approach to policy-making. This book covers the broad area including potential of rhizospheric microorganisms in the sustainable plant development in anthropogenic polluted soils, bioremediation of pesticides from soil and waste water, toxic metals from soil, biological treatment of pulp and paper industry wastewater, sustainable solutions for agro processing waste management, solid waste management on climate change and human health, environmental impact of dyes and its remediation. Various methods for genotoxicity testing of environmental pollutants are also discussed and chapters on molecular detection of resistance and transfer genes in the environmental samples, biofilm formation by the environmental bacteria, biochemical attributes to assess soil ecosystem sustainability, application of rhizobacteria in biotechnology, role of peroxidases as a tool for the decolorization and removal of dyes and potential of biopesticides in sustainable agriculture. It offers a unique treatment of the subject, linking various protection strategies for sustainable development, describing the inter-relationships between the laboratory and field eco-toxicologist, the biotechnology consultant, environmental engineers and different international environmental regulatory and protection agencies.

Sensing and Monitoring Technologies for Mines and Hazardous Areas

This thoroughly revised and updated text, now in its second edition, is primarily intended as a textbook for undergraduate students of Physics. The book provides a sound understanding of the fundamental concepts of optics adopting an integrated approach to the principles of optics. It covers the requirements of syllabi of undergraduate students in Physics and Engineering in Indian Universities. The book includes a wide range of interesting topics such as Fermat's principle, geometrical optics, dispersion, interference, diffraction and polarization of light waves, optical instruments and lens aberrations. It also discusses electromagnetic waves, fundamentals of vibrations and wave motion. The text explains the concepts through extensive use of line drawings and gives full derivations of essential relations. The topics are dealt with in a well-organized sequence with proper explanations along with simple mathematical formulations. New to the SECOND Edition • Incorporates two new chapters, i.e., 'Fundamentals of Vibrations', and 'Wave Motion' • Includes several worked-out examples to help students reinforce their comprehension of theory • Provides Formulae at a Glance and Conceptual Questions with their answers for quick revision KEY FEATURES • Provides several Solved Numerical Problems to help students comprehend the concepts with ease • Includes Multiple Choice Questions and Theoretical Questions to help students check their understanding of the subject matter • Contains unsolved Numerical Problems with answers to build problem-solving skills

Strength of Materials, Third Edition

Contributed chapters.

Fundamentals of Mathematical Statistics

Sensing and Monitoring Technologies for Mines and Hazardous Areas: Monitoring and Prediction Technologies presents the fundamentals of mining related geotechnical risk and how the latest advances in sensing and data communication can be used both to prevent accidents and provide early warnings. Opencast mining operations involve huge quantities of overburden removal, dumping, and backfilling in excavated areas. Substantial increases in the rate of accumulation of waste dumps in recent years has resulted in greater height of dumps and also has given rise to the danger of dump failures as steeper open pit slopes are prone to failure. These failures lead to loss of valuable human lives and damage to mining machinery. This book presents the most recent advances in gas sensors, methane detectors, and power cut-off systems. It also introduces monitoring of the gas strata and environment, and an overview of the use of Internet of Things and cloud computing for mining sensing and surveillance purposes. Targeted at geotechnical and mining engineers, this volume covers the latest findings and technology to prevent mining accidents and mitigate the inherent risk of the activity.

Presents complete details of a real-time slope stability monitoring system using wireless sensor networking and prediction technique based on multivariate statistical analysis of various parameters and analytical hierarchy process methods
Discusses innovative ideas and new concepts of sensing technologies, mine transport surveillance, digital mining, and cloud computing to improve safety and productivity in mining industry Includes slope stability prediction software, downloadable through a companion website, which can be used for monitoring, analyzing, and storing different sensors and providing audio-visual, SMS, and email alerts Covers the latest findings and technology to prevent mining accidents and mitigate the inherent risk

Building Construction

This book, divided in two volumes, originates from Techno-Societal 2018: the 2nd International Conference on Advanced Technologies for Societal Applications, Maharashtra, India, that brings together faculty members of various engineering colleges to solve Indian regional relevant problems under the guidance of eminent researchers from various reputed organizations. The focus is on technologies that help develop and improve society, in particular on issues such as the betterment of differently abled people, environment impact, livelihood, rural employment, agriculture, healthcare, energy, transport, sanitation, water, education. This conference aims to help innovators to share their best practices or products developed to solve specific local problems which in turn may help the other researchers to take inspiration to solve problems in their region. On the other hand, technologies proposed by expert researchers may find applications in different regions. This offers a multidisciplinary platform for researchers from a broad range of disciplines of Science, Engineering and Technology for reporting innovations at different levels.

The Idea of the Superman in the Plays of G.B. Shaw

The world of halophiles is quite diverse and their representatives in three domains of life i.e. archaea, bacteria and eukarya. They are found all over the small subunit rRNA based tree of life and these micro-organisms are adapted to salt concentration up to saturation hence able to grow at $>300\text{g/l}$ NaCl concentration. Their metabolic diversity is high as well encompassing oxygenic and anoxygenic phototrophs, aerobic heterotrophs, denitrifiers, sulphate reducers, fermenters and methanogens. The proteins of halophiles are magnificently engineered to function in a milieu containing 2-5M salt that encodes genes represent a valuable repository and resource for reconstruction and visualizing processes of habitat selection and adaptive evolution. Search for new enzymes endowed with novel activities and enhanced stability continues to be desirable purpose for important commercial production of biotechnological significance. These poly extremophiles proved excellent source of enzymes and metabolites possessing inherent ability to function in extreme conditions of high salt, alkaline pH and facilitating catalysis for industrial application in food processing, industrial bioconversion,

bioremediation etc. In fact, it has just begun to realize the great potential and true extent of diversity and suitable applications if explored them judiciously. This book highlights current applications and research on halophiles to provide a timely overview. Chapters are written by expert authors from around the world and include topics of varied importance which include their role to play in enzyme production, restoration of soil fertility and plant growth, antimicrobial and biocatalytic potential, biomolecules in nanotechnology and aspects of quorum sensing. The book is divided into three sections, dealing with biodiversity, biotechnology and sustainable exploitation of halophiles. This major new work represents a valuable source of information to all those scientists interested in microorganisms in general and extremophiles in particular with respect to their innovative products and applications.

Fundamentals of Manufacturing Engineering, Third Edition

There are several well-known books on the market that cover biomaterials in a general way, but none provide adequate focus on the future of and potential for actual uses of emerging nanotechnology in this burgeoning field. Biomaterials: A Nano Approach is written from a multi-disciplinary point of view that integrates aspects of materials science a

FUNDAMENTALS OF OPTICS, SECOND EDITION

This reference work presents the basic principles of angiogenesis induction, including the roles of signaling factors such as hypoxia-inducible factors, biophysical stimulation and angiogenic cells. The book also covers lymphogenesis induction. Both the established fundamentals in the field as well as new trends in the vascularization of engineered tissues are discussed. These include pre-vascularization strategies using preparation of channeled scaffolds and preparation of decellularized blood vessel trees, approaches to inducing formation of microvasculature and approaches to inducing the growth of vascular networks. The authors expand on these concepts with current studies of dual-level approaches to engineer vascularized tissue composites. The book concludes with a discussion of current clinical approaches and the use of vascular grafts in the context of providing clinical practice with new tissue engineering strategies.

Techno-Societal 2018

In partnership with Google, the most extensive and respected search engine on the Web, DK presents the E.encyclopedia, a revolutionary approach to children's reference publishing. A superbly illustrated general encyclopedia on the subjects children most want and need to learn about, the E.encyclopedia is classic DK-quality publishing paired with cutting-edge design. The E.encyclopedia includes nine thematic sections in the encyclopedia including space, earth, history and human body with coverage of over 600 subjects and links to over 1,000 approved sites plus sound buttons, virtual tours and live

footage online. There's no need to be stuck with homework ever again.

Fundamental of Digital Electronics And Microprocessors

Strength of Materials, 3rd Edition is ideal for students pursuing degrees in civil and mechanical engineering, as well as computer science, electronics, and instrumentation. Topics include combined stresses, centroid and the moment of inertia, shear forces and bending moments in beams, stresses in beams, the deflection of beams, torsion of circular members, springs, strain energy, the theory of elastic failure, buckling of columns, pressure vessels, and the analysis of framed structures. The general arrangement of the new edition of the book remains unchanged however the text has been thoroughly revised. Also, several new solved problems in the chapters have been added. It continues to provide students with a sound understanding of the fundamental concepts of civil structures, machine elements, and other components. A large number of New Solved Examples (about 50) have been added in the chapters such as 1, 2, 5, 6, 7, 10, and 13. Model Multiple Choice Questions (about 250) have been added at the end to test the understanding of students and to provide an approach for competitive examinations. A new chapter (Chapter 14) on Mechanical Testing of Materials has been introduced. The entire text has been thoroughly revised and updated to eliminate the possible errors left out in the previous editions of the book. The Third Edition is augmented by more than 100 pages and the scope of the book has been further increased.

Fundamentals of Manufacturing For Engineers

This book offers comprehensive coverage of all the core topics of bioinformatics, and includes practical examples completed using the MATLAB bioinformatics toolbox™. It is primarily intended as a textbook for engineering and computer science students attending advanced undergraduate and graduate courses in bioinformatics and computational biology. The book develops bioinformatics concepts from the ground up, starting with an introductory chapter on molecular biology and genetics. This chapter will enable physical science students to fully understand and appreciate the ultimate goals of applying the principles of information technology to challenges in biological data management, sequence analysis, and systems biology. The first part of the book also includes a survey of existing biological databases, tools that have become essential in today's biotechnology research. The second part of the book covers methodologies for retrieving biological information, including fundamental algorithms for sequence comparison, scoring, and determining evolutionary distance. The main focus of the third part is on modeling biological sequences and patterns as Markov chains. It presents key principles for analyzing and searching for sequences of significant motifs and biomarkers. The last part of the book, dedicated to systems biology, covers phylogenetic analysis and evolutionary tree computations, as well as gene expression analysis with microarrays. In brief, the book offers the ideal hands-on reference guide to the field of bioinformatics and

computational biology.

Fundamentals of Robotics

The second, updated edition of this essential reference book provides a wealth of detail on a wide range of electronic and photonic materials, starting from fundamentals and building up to advanced topics and applications. Its extensive coverage, with clear illustrations and applications, carefully selected chapter sequencing and logical flow, makes it very different from other electronic materials handbooks. It has been written by professionals in the field and instructors who teach the subject at a university or in corporate laboratories. The Springer Handbook of Electronic and Photonic Materials, second edition, includes practical applications used as examples, details of experimental techniques, useful tables that summarize equations, and, most importantly, properties of various materials, as well as an extensive glossary. Along with significant updates to the content and the references, the second edition includes a number of new chapters such as those covering novel materials and selected applications. This handbook is a valuable resource for graduate students, researchers and practicing professionals working in the area of electronic, optoelectronic and photonic materials.

Textbook of Field Crops Production

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