

Environmental Studies By Desval

This book chiefly focuses on environmental flow, water pollution and water quality. Several chapters also cover water treatment technologies and management. In today's context, climate change and climate variability are important issues in the water sector, which is called upon to develop adaptation strategies to cope with their negative impacts. Human health depends upon the quality of water used for drinking and irrigation purposes. These core issues are discussed and addressed in several chapters. The book explores the impact of climate change on water resources and considers various climatological scenarios. In this regard, it carries out a trend analysis and compares the performance of various Global Climate Models (GCMs). Further, it conducts a water quality analysis and water quality mapping so as to provide information on the most vulnerable areas in the context of water quality. Emerging pollutants, generated from paper mills, are identified in order to choose an appropriate treatment technology. Bioremediation techniques are included for the characterization of improved water quality parameters. The book also presents a low-cost treatment technology for fluoride removal, which can help water managers ensure potable water to stakeholders. In terms of maintaining river ecology in the downstream areas of water resources project sites, the book provides a number of case studies on assessment of environmental flows. Advanced treatment technologies that can be highly advantageous for removing water pollutants are presented. Given its scope, the book offers a valuable resource for academics, water resources practitioners, scientists, water managers, environmentalists, administrators, NGOs, researchers and students who are involved in water management with a main focus on water pollution, the environment, climate change and health.

A textbook of Engineering Physics is written with two distinct objectives: to provide a single source of information for engineering undergraduates of different specializations and provide them a solid base in physics.Successive editions of the book incorporated topic as required by students pursuing their studies in various universities.In this new edition the contents are fine-tuned,modelized and updated at various stages.

The hill chain of Western Ghats, a treasure trove of biodiversity and the water tower of peninsular India has been engrossed the attention of various stakeholders all over the world. This region is identified as one among the eight hottest hotspots of biodiversity and hence attracted worldwide attention. This book is a compilation of various research articles related to Western Ghats, its ecology, environment, geography, biodiversity, etc. The editors have taken utmost care to include articles related to various issues such as, the debates over WGEEP and HMG reports, studies on mining and quarrying activities, agriculture and allied activities, issues related to sustainable agricultural practices, agrarian distress, impact of migration, changing land use pattern, other economic activities and its impact on the environment and ecology, etc. The book offers an insight into the concerns of the farmers and offers policy solutions wherever possible.

Environment and Health

Wit and Humour of Haryana

Organic Pollutants

Agroecology, Ecosystems, and Sustainability

Proceedings of the 1st International Conference on Sustainable Waste Management through Design

The importance of environmental science and environmental studies cannot be disputed. The need for sustainable development is a key to the future of mankind. Continuing problems of pollution, loss of forest, solid waste disposal, degradation of environmental issues like economic productivity and national security, Global warming, the depletion of ozone layer and loss of biodiversity have made everyone aware of environmental issues and consequences. In spite of the deteriorating status of the environment, study of environment has so far not received adequate attention in our academic programmes. Recognizing this, the Hon'ble supreme court directed the UGC to introduce a basic course on environment at undergraduate level in college education. Accordingly, UGC constituted an expert committee, which drafted the core module course, comprising of 7 units and field work. This book tries to cover up and match with the module core syllabus suggested by UGC, New Delhi for all branches of Engineering.

This book Environmental Studies for Undergraduate Courses follows specifically and strictly designed model syllabus prescribed by the UGC for undergraduate courses of higher education in India. The textbook has been divided into eight units. The first unit covers definition, scope and importance of environmental studies. Second unit explains the renewal and non-renewal resources. Next unit introduces the reader to the types of ecosystems, and food chains. Fourth unit describes biodiversity and its conservation. The fifth unit elaborates sources of pollution, solid waste management, and disaster management. Sixth unit discusses sustainable development, urban problems, climate & global warming, and legislative environmental Acts. Human welfare and environment form the next unit. Fieldwork relating to study of simple ecosystems forms the eighth and the last unit. The salient features of the book include a simple explanation of the subject, relevant case studies, environmental quotes and interesting facts.

The Era of Artificial Intelligence, Machine Learning and Data Science in the Pharmaceutical Industry examines the drug discovery process, assessing how new technologies have improved effectiveness. Artificial intelligence and machine learning are considered the future for a wide range of disciplines and industries, including the pharmaceutical industry. In an environment where producing a single approved drug costs millions and takes many years of rigorous testing prior to its approval, reducing costs and time is of high interest. This book follows the journey that a drug company takes when producing a therapeutic, from the very beginning to ultimately benefitting a patient's life. This comprehensive resource will be useful to those working in the pharmaceutical industry, but will also be of interest to anyone doing research in chemical biology, computational chemistry, medicinal chemistry and bioinformatics. Demonstrates how the prediction of toxic effects is performed, how to reduce costs in testing compounds, and its use in animal research

Written by the industrial teams who are conducting the work, showcasing how the technology has improved and where it should be further improved Targets materials for a better understanding of techniques from different disciplines, thus creating a complete guide

Introduction to Environmental Science

PLC And SCADA

Environmental Studies for Undergraduate Courses

Climate Impacts on Water Resources in India

Signalling Under Stress Conditions

This book is intended to meet the academic requirements of the subject 'Environmental Studies' for undergraduate students in Indian and overseas universities. The contents have been prepared keeping in mind the widest possible variations in the background of the users. The entire UGC syllabus and supplementary materials are in the nine chapters. Chapter 1 describes the multidisciplinary nature of environmental studies. Chapter 2 and 3 comprehensively elaborate the forest, water, minerals, food, energy and land resources. Chapter 4 explains various aspects of biodiversity. Chapter 5 discusses the science of ecology and concepts of ecosystem. Chapter 6 is an exhaustive description of environmental pollution, its sources, effects and control measures. The sustainable development has been discussed in Chapter 7. Issues on environment and health, human rights, AIDS, women & child welfare and role of IT industry have been addressed in great length in Chapter 8. Key features of this book include authentic, simple to the point and latest account of each and every topic besides well sketched illustrations and various case studies. The book also contains glossary of terms which can be of particular use to students with little or no science background, and appendices and abbreviations commonly used in describing environmental studies

Plants have to manage a series of environmental stresses throughout their entire lifespan. Among these, abiotic stress is the most detrimental; one that is responsible for nearly 50% of crop yield reduction and appears to be a potential threat to global food security in coming decades. Plant growth and development reduces drastically due to adverse effects of abiotic stresses. It has been estimated that crop can exhibit only 30% of their genetic potentiality under abiotic stress condition. So, this is a fundamental need to understand the stress responses to facilitate breeders to develop stress responses to withstand abiotic stresses. Also, a holistic approach to understanding the molecular and biochemical interactions of plants is important to implement the knowledge of resistance mechanisms under abiotic stresses. Agronomic practices like selecting cultivars that is tolerant to wide range of climatic condition, planting date, irrigation scheduling, fertilizer management could be some of the effective short-term adaptive tools to fight against abiotic stresses. In addition, "system biology" and "omics approaches" in recent studies offer a long-term opportunity at the molecular level in dealing with abiotic stresses. The genetic approach, for example, selection and identification of major conditioning genes by linkage mapping and quantitative trait loci (QTL), production of mutant genes and transgenic introduction of novel genes, has impacted some tolerant characteristics in crop varieties from their wild ancestors. Recently research has revealed the interactions between micro-RNAs (miRNAs) and plant stress responses exposed to salinity, freezing stress and dehydration. Accordingly transgenic approaches to generate stress-tolerant plant are one of the most interesting researches to date. This book presents the recent development of agronomic and molecular approaches in conferring plant abiotic stress tolerance in an organized way. The present volume will be of great interest among research students and teaching community, and can also be used as reference material by professional researchers.

Research Paper (postgraduate) from the year 2017 in the subject Medicine – Human Genetics, grade: 1, Egerton University, language: English, abstract: In an attempt to determine the factors that influence intelligence in humans, psychologists have investigated the issue from two principal perspectives: nature and nurture. As a result, research studies on these aspects have confirmed that both nature and nurture influences the development of intelligence. According to Heffner, genetic factors have been identified as the influential forces of nature that shape intelligence, whereas environmental factors influence intelligence through exposure or rather nurture. In both schools of thought, it is apparent that tests for intelligence are aimed at determining the level of intelligence through the use of Intelligence Quotient (IQ) test. Similarities and differences in IQ among individuals explain the degree at which genetics and environment influences development of intelligence. Therefore, this research paper discusses nature-nurture basis of intelligence.

Plant Growth Regulators

Environmental Protection Law and Policy in India

The Era of Artificial Intelligence, Machine Learning, and Data Science in the Pharmaceutical Industry

A Textbook of Engineering Mathematics (For First Year , Anna University)

Proceedings of ICDAI

We hear a lot about how agriculture affects climate change and other environmental issues, but we hear little about how these issues affect agriculture. When we look at both sides of the issues, we can develop better solutions for sustainable agriculture without adversely affecting the environment. Agroecology, Ecosystems, and Sustainability explores a modern vision of ecology and agricultural systems, so that crop production can be sustainably developed without further environmental degradation. With contributions from more than 20 countries, the book describes how to make the transition to modern agroecology to help the environment. It examines the global availability of natural resources and how agroecology could allow the world population to reach the goal of global sustainable ecological, agricultural, and food production systems. The book discusses important principles that regulate agroecological systems, including crop production, soil management, and environment preservation. Making the link between the practices, the book includes examples of agroecology such as an interdisciplinary framework for the management of integrated production and conservation landscapes and the use of mechanized rain-fed farming and its ecological impact on drylands. An examination of how ecology and agriculture can be allied to ensure food production and security without threatening our environment, the text shows you how natural resources can be used in a manner to create a "symbiosis" to preserve ecological systems and develop agriculture.

This volume describes the identification of emerging organic pollutants, mainly from industrial sources, their associated toxicological threats, and the latest green methods and biotechnological solutions to abate harmful impacts on people and the environment. The chapters present reviews on current applied toxicology research, occupational health hazards and green remedial solutions for pollution control in terrestrial and aquatic environments, with the aim of raising public awareness of these issues and providing chemists, toxicologists and environmental scientists with the knowledge to combat organic pollutants through sustainable means. Readers will learn about the multi-dimensional applications of materials and processes which harvest energy out of environmental remediation technologies, as well as the roles of biotechnology and nanotechnology in addressing high pollutant load. Specific attention is paid to technologies that draw energy through wastewater remediation, as this covers the primary means by which organic pollutants are introduced into the environment from industry and other sources. The book will be of use to pollution control boards, industry regulators, and students and researchers in the fields of biotechnology, biomedical science, hydrology and water chemistry.

This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management (ICDAM 2020), held at Jan Wyżkowski University, Poland, during June 2020. The book covers the topics in data analytics, data management, big data, computational intelligence, and communication networks. The book presents innovative work by leading academics, researchers, and experts from industry which is useful for young researchers and students.

Western Ghats - From Ecology To Economics

Environmental Change In The Himalayan Region

Biotechnology for Environmental Management and Resource Recovery

Concepts, Technologies and Applications

Data Analytics and Management

Key Features: Serves as a cutting-edge resource for researchers and students who are studying plant abiotic stress tolerance and crop improvement through metabolic adaptations Presents the latest trends and developments in the field of metabolic engineering and abiotic stress tolerance Addresses the adaptation of plants to climatic changes Gives special attention to emerging topics such as the role of secondary metabolites, small RNA mediated regulation and signaling molecule responses to stresses Provides extensive references that serve as entry points for further research Metabolic Adaptations in Plants during Abiotic Stress covers a topic of past, present and future interest for both scientists and policy makers as the global challenge of climate change is addressed. Understanding the mechanisms of plant adaptation to environmental stresses can provide the necessary tools needed to take action to protect them, and hence ourselves. This book brings together recent findings about metabolic adaptations during abiotic stress and in diverse areas of plant adaptation. It covers not only the published results, but also introduces new concepts and findings to offer original views on the perspectives and challenges in this field.

The Importance Of Environmental Studies Cannot Be Disputed Since The Need For Sustainable Development Is A Key To The Future Of Mankind. Recognising This, The Honourable Supreme Court Of India Directed The Ugc To Introduce A Basic Course On Environmental Education For Undergraduate Courses In All Disciplines, To Be Implemented By Every University In The Country. Accordingly, The Ugc Constituted An Expert Committee To Formulate A Six-Month Core Module Syllabus For Environmental Studies. This Textbook Is The Outcome Of The Ugc S Efforts And Has Been Prepared As Per The Syllabus. It Is Designed To Bring About An Awareness On A Variety Of Environmental Concerns. It Attempts To Create A Pro-Environmental Attitude And A Behavioural Pattern In Society That Is Based On Creating Sustainable Lifestyles And A New Ethic Towards Conservation. This Textbook Stresses On A Balanced View Of Issues That Affect Our Daily Lives. These Issues Are Related To The Conflict Between Existing Development Strategies And The Need For Conservation. It Not Only Makes The Student Better Informed On These Concerns, But Is Expected To Lead The Student Towards Positive Action To Improve The Environment. Based On A Multidisciplinary Approach That Brings About An Appreciation Of The Natural World And Human Impact On Its Integrity, This Textbook Seeks Practical Answers To Make Human Civilization Sustainable On The Earth S Finite Resources. Attractively Priced At Hundred And Fifteen Only, This Textbook Covers The Syllabus As Structured By The Ugc, Divided Into 8 Units And 50 Lectures. The First 7 Units, Which Cover 45 Lectures Are Classroom Teaching And Enhance Knowledge Skills And Attitude To Environment. Unit 8 Is Based On Field Activities To Be Covered In 5 Lecture Hours And Would Engage Students With First Hand Knowledge On Various Local Environmental Issues. Do you know that a good night's sleep heals psychological trauma? And how you can optimize your sleep? Do you know how to eat? And how you can eat less and still feel full? Or eat more and not feel bloated? Are you even breathing correctly? And know how to use your breath to become calm and clear-headed in a stressful situation? This book is only 4000 words long- and it took me 6 months to write. I didn't just jot down the words, I looked at the scientific literature and self-experimented with everything that's listed here. This book will fix and improve eating, breathing, sleeping and other basic aspects of your life in easy and well-defined steps. Ace the details of your routine- the daily habits that literally dictate your life no matter where you are- or how rich or poor or happy or unhappy you are. Things that you do every day- mundane, and in some strange way, deeply intimate because of their idiosyncrasy. They decide how white your smile, how proud your stride and how deep your sleep is. This book utilizes insights from monks, scientists, and a diverse body of research and turns them into actionable steps that help improve your life from the ground up. Healthy living is not a giant leap, it is a series of small steps.

Metabolic Adaptations in Plants During Abiotic Stress

74 Easy and Proven Habits To Become Happier and Stronger

Environmental Science

Textbook of Environmental Studies for Undergraduate Courses

Basic environmental engineering [electronic resource]

"Multiple biotic and abiotic environmental factors may constitute stresses that affect plant growth and yield in crop species. Advances in plant physiology, genetics, and molecular biology have greatly improved our understanding of plant responses to stress"

Agroecology faces many challenges to fulfil the relative to provide the basic information about the Environmental Engineering and as such, very much useful for the first year B. Tech. students of all branches/disciplines. The book covers the new syllabus of the semester scheme for the first year in R.T.U. and other universities. It encompasses the practical applications of the subject, that is the real need of the hour and also discusses the major environmental problems we face today. Key features Contains authentic information provided by the different Manuals prepared by The C.P.H.E.O. Includes examples of dile. This book describes the latest advances, innovations and applications in the field of waste management and environmental geomechanics as presented by leading researchers, engineers and practitioners at the International Conference on Sustainable Waste Management through Design (IC, SWMD), held in Ludhiana (Punjab), India on November 2-3, 2018. Providing a unique overview of new directions, and opportunities for sustainable and resilient design approaches to protect infrastructure and the environment, it discusses diverse topics related to civil engineering and construction aspects of the resource management cycle, from the minimization of waste, through the eco-friendly re-use and processing of waste materials, the management and disposal of residual wastes, to water treatments and technologies. It also encompasses strategies for reducing construction waste through better design, improved recovery, re-use, more efficient resource management and the performance of materials recovered from wastes. The contributions were selected by means of a rigorous peer-review process and highlight many exciting ideas that will spur novel research directions and foster multidisciplinary collaboration among different waste management specialists.

The book gives an exhaustive exposition of the fundamental concepts, techniques and devices in Basic Electronics Engineering. The book covers the basic course in basic electronics of almost all the Indian technical universities and some foreign universities as well. It is particularly well suited undergraduate students of all Engineering disciplines. Diploma students of EEE and ECE will find useful too. Basic Electronics is designed as the one-stop solution for those attempting to teach as well as study a course on Basic Electronics. The carefully developed pedagogy will help the instructor pick thought-provoking questions for tutorials and examinations, as well as allow plenty of practice for the students. Salient Features - Approach modular, and exposition of subject matter through illustrations - Block-diagrams and circuit diagrams used aplenty to enhance understanding - Pedagogy count and features: - Solved Examples- 136 - MCQs- 189 - Review Questions- 235 - Problems- 163 - Diagrams- 409

FOOD SECURITY IN INDIA

Master the OBVIOUS

Toxicity and Solutions

IC, SWMD 2018

Twelve Case Studies

Various types of secondary agriculture and forestry wastes represent valuable resource materials for developing alternate energy as biofuels and other value added products such as sugars, phenols, furans, organic acids, enzymes and digestible animal feed etc. However, if not managed properly, waste material and environmental contaminants generated by various industries such as food and feed, pulp and paper and textile may lead to severe environmental pollution. The energy, food and feed demand necessitate developing simple and economically viable technologies for environmental management and resource recovery. Microorganisms and their enzymes contribute significantly in utilization of plant residues, resource recovery and eventually in pollution mitigation. "Biotechnology for Environmental Management and Resource Recovery" presents a comprehensive review of selected research topics in a compendium of 16 chapters related to environmental pollution control and developing biotechnologies in agro-ecosystem management and bioconversion of agro-residues (lignocellulosics) into biofuels, animal feed and paper etc. This book provides a valuable resource for reference and text material to graduate and postgraduate students, researchers, scientists working in the area of microbiology, biotechnology, and environmental science and engineering.

Chapter - I Introduction, Chapter - II Food Security: Inter and Intrnational Perspectives, Chapter - III Concepts, Theories and Food Security Aspects, Chapter - IV Profile of the Study Area, Chapter - V Food Security among Socially Excluded Communities in Rural Tamil Nadu, Chapter - VI Summary of Major Findings and Conclusion, References The right to food and freedom from hunger re-emerged during 1990s. The historical World Food Summit was held in Rome in 1996, in which 185 countries participated and signed the 'Rome Declaration on World Food Security' which reaffirmed the right of everyone to have access to safe and nutritious food. Consequently, the right to adequate food is recognized as a fundamental human right. The world communities, further pledged in 2000 to cut the number of the world's hungry people to half between 1990 and 2015, as one of the Millennium Development Goals (United Nations, 2008). Food security is an important means to realize the right to food. It means the assured access to adequate food to all members of the household throughout the year. The Nobel Laureate, Amartya Sen (1981) has defined a fundamental right to food as "the right to have sufficient food to eat. Food security as defined by Food and Agriculture Organisation of the United Nations (FAO, 2005) "exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preference for an active and healthy life". Household food security is the application of this concept to the family level, with individuals within the households as the focus of concern. India has been witnessing the phenomenon of erratic monsoon consistently. It has serious implications on the food sufficiency and food security of the country. Poor monsoons also affect the welfare of people in terms of availability of drinking water and employment opportunities. Studies on food security have not been carried out in Rural Tamil Nadu by academic and specialized research institutions.

A Textbook of Electrical Engineering

Environmental Engineering

Omics and Plant Abiotic Stress Tolerance

Distributed Computing in Big Data Analytics