

Environmental Engineering Khanna Publishers

About the Book: This textbook provides 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.E.O. Includes examples of diffe.

Nothing stays the same for ever. The environmental degradation and corrosion of materials is inevitable and affects most aspects of life. In industrial settings, this inescapable fact has very significant financial, safety and environmental implications. The Handbook of Environmental Degradation of Materials explains how to measure, analyse, and control environmental degradation for a wide range of industrial materials including metals, polymers, ceramics, concrete, wood and textiles exposed to environmental factors such as weather, seawater, and fire. Divided into sections which deal with analysis, types of degradation, protection and surface engineering respectively, the reader is introduced to the wide variety of environmental effects and what can be done to control them. The expert contributors to this book provide a wealth of insider knowledge and engineering knowhow, complementing their explanations and advice with Case Studies from areas such as pipelines, tankers, packaging and chemical processing equipment ensures that the reader understands the practical measures that can be put in place to save money, lives and the environment. The Handbook's broad scope introduces the reader to the effects of environmental degradation on a wide range of materials, including metals, plastics, concrete, wood and textiles For each type of material, the book describes the kind of degradation that effects it and how best to protect it Case Studies show how organizations from small consulting firms to corporate giants design and manufacture products that are more resistant to environmental effects Environmental degradation has been a major concern since past few decades, because of economic growth and development across the world has caused major impacts on the Earth's ecosystems and natural resources to an extent that can limit the well-being of future generations. India has recently started realizing the importance of environment and the environmental education. Following the 2001 Supreme Court directive, the environmental education has been or is being included in the curriculum right from the school stage to the College/ University level. This book covers the syllabi of all Indian Technical Universities and other Universities for different disciplines, may it be in the name of environmental studies, environmental science, ecology or natural resource management. This book is written to bring about an awareness of a variety of environmental concerns and deals from concepts through impacts, mitigation auto management.

The book is a compilation of the papers presented in the International Conference on Emerging Trends in Water Resources and Environmental Engineering (ETWREE 2017). The high quality papers are written by research scholars and academicians of prestigious institutes across India. The book discusses the challenges of water management due to misuse or abuse of water resources and the ever mounting challenges on use, reuse and conservation of water. It also discusses issues of water resources such as water quantity, quality, management and planning for the benefits of water resource scientists, faculties, policy makers, stake holders working in the water resources planning and management. The research content discussed in the book will be helpful for engineers to solve practical day to day problems related to water and environmental engineering.

Contributed articles presented at the 2nd International Conference of Bhoovigyan Vikas Foundation.

In the last 100 years, mankind has managed to destroy much of what it took nature millions of years to create. At no point in history has so much damage been done to our natural heritage in such short a time. If anything ever needed to be done to stop this crime against our future generations then now is the time, as with every passing day we are speeding towards a self-inflicted doomsday. What is killing our ecology and environment is generally known. What we need are solutions and ways of implementing them. This International Conference on Environment and Development: Challenges and Opportunities, being held from March 4-6, 2005, at the University of Delhi, India, is one such step. The conference presents the most up-to-date ideas on solving problems, both ecological and environmental, which mankind has brought upon itself.

This book will cater to the needs of students who want to pursue a Diploma in Engineering, Degree in Engineering (B.Tech/B.E., B.Sc.(Engg.)) students. Postgraduate degree in Engineering (M. Tech, M.E.) students. AMIE (Associate membership of Indian Institute of Metals) examination. AMIChE (Associate Membership of Indian Institute of Chemical Engineers) examination. AIC (Associateship of Institute of Chemist) examination. Practicing engineers in the field of environmental engineering. Environmental engineering professionals.

Water Supply EngineeringEnvironmental EngineeringSewerage Disposal and Air Pollution EngineeringEnvironmental EngineeringElements of Environmental Pollution ControlKHANNA PUBLISHING HOUSE Composites are materials made from two or more constituent materials with significantly different physical or chemical properties. The two materials combine together to give a new material with higher strength, toughness, stiffness, but also a higher resistance to creep, corrosion, wear or fatigue compared to conventional materials. It is composed primarily of a matrix i.e. a continuous phase which is armoured with secondary discontinues reinforcement phase. These materials have been used in a variety of products viz. spacecrafts, sporting goods, catalyst, sensors, actuators, biomedical materials, batteries, cars, furniture, aircraft components, etc. This book focusses on processing, properties of various types of composite materials, as well as their environmental engineering applications. This book examines the current state of art, new challenges, and opportunities of composites in environmental engineering. The chapters in this book covers nearly every topic related to composites in environmental engineering in four broad perspectives: (i) classification of composites (ii) green/hybrid synthesis and characterization of nano and biocomposites (iii) processing of composite materials (iv) state-of-the-art in fabricating the composites - nano and biocomposites - for environmental applications.

Nanotechnology is the twenty-first century revolution that has impacted each and every aspect of life despite its small size. As nanoscale research continues to advance, scientists and engineers are developing new applications for many different disciplines, including environmental applications. Nanotechnology Applications in Environmental Engineering contains innovative research on nanomaterials and their impact on the environment. It also explores the current and potential future applications of nanodevices in environmental science and engineering, showcasing how nanomaterials can be tailored to address some of the environmental remediation and sensing/detection problems faced today. While highlighting topics such as environmental science, nanomaterials, and membrane technology, this book is ideally designed for environmental scientists, nanotechnologists, chemists, engineers, and individuals seeking current research on nanotechnology and its applications in environmental engineering.

This book contains more than 1400 multiple choice questions covering various environment-related topics, such as ecology and environment, biodiversity, natural resources, eco-marketing, environmental finance, air pollution, and water pollution. The first chapter is a comprehensive introduction to environmental studies. The book will prove beneficial for academicians, students pursuing courses on environmental studies, professionals, aspirants of various competitive exams, and stakeholders in the environment sector. It can also be handy for various quiz programmes.

Contents: Introduction, Review of Related Research, Statement of the Problem, Methodology, Results and Discussion, Summary and Suggestions.

Water Quality – Science, Assessments and Policy examines many of the scientific issues; national, regional and local assessment practices and results; and national policy issues related to

water quality. Chapters focus on three areas: water quality parameters, water quality treatments, and water quality assessments. This book provides a basic understanding of water quality issues and practical examples of their solution.

This book provides a fully comprehensive, rigorous and refreshing treatment of 'Air Pollution and Control' covering present day technology and developments. It covers various new topics like bioaerosols or aeroallergens and hazardous air pollutants including diesel exhaust and dioxins. The book is intended to meet the requirements of (a) Undergraduate and postgraduate students of particularly Environmental and Mechanical Engineering and also other branches of Engineering, (b) Technologists, designers, operation and maintenance engineers of industries, electrical power plants, heat and power utilities, (c) Aspirants for competitive examinations of IAS, IES, IFS, PCS, and aspirants for various state and private technical services, etc. and (d) General readers interested in the field for better understanding and knowledge. The book is divided into 20 chapters and presents enormous information covering all aspects of Air Pollution in various sectors relevant to Indian conditions. Each of the following chapters is followed by questions at the end based upon the text.

This Revised Edition Of The Book On Environmental Pollution Control Engineering Features A Systematic And Thorough Treatment Of The Principles Of The Origin Of Air, Water And Land Pollutants, Their Effect On The Environment And The Methods Available To Control Them. The Demographic And Environmental Trends, Energy Consumption Patterns And Their Impact On The Environment Are Clearly Discussed. Application Of The Physical, And Chemical Engineering Concepts To The Design Of Pollution Control Equipment Is Emphasized. Due Importance Is Given To Modelling, Quality Monitoring And Control Of Specific Major Pollutants. A Separate Chapter On The Management Of Hazardous Wastes Is Added. Information Pertaining To Indian Conditions Is Given Wherever Possible To Help The Reader Gain An Insight Into India Sown Pollution Problems. This Book Is Mainly Intended As A Textbook For An Integrated One-Semester Course For Senior Level Undergraduate Or First Year Post-Graduate Engineering Students And Can Also Serve As A Reference Book To Practising Engineers And Decision Makers Concerned With Environmental Pollution Control.

This book presents the proceedings of the First National Conference on Sustainable Management of Environment & Natural Resource through Innovation in Science and Technology (SMTST2020). The book highlights the latest development and innovations in the fields of sustainability, natural resource management, ecology and its environmental fields, geosciences and geology, atmospheric sciences, sustainability, climate change, and extreme weather, global warming, and global change, the effect of climate change on the ecosystem, environment, and pollution, as well as putting a strong emphasis on the multidisciplinary studies.

This book presents the proceedings of the International Conference on Health, Safety, Fire, Environment, and Allied Sciences (HSFEA 2018), highlighting the latest developments in the field of science and technology aimed at improving health and safety in the workplace. The volume comprises content from leading scientists, engineers, and policy makers, discussing water pollution and advanced remedial measures, and the impact on health and the environment. Topics of discussion include research on emerging water pollutants, their sources, monitoring and control. The contents of this volume will be of interest to researchers, practitioners, and policy makers alike.

?ABOUT THE BOOK: An attempt has been made in this book to explain the fundamentals of Sanitary Engineering, Sewage, Lab. Testing Treatment and disposal of industrial waste water. The subject as a whole is a complicated one. But it is believed that the basic ideas are exposed in this book, the reader will be able to have a clear idea of the subject. This book is written in Metric units. The subject-matter explained in simple and easy language assisted by-explanatory and neatly drawn sketches where necessary. This book covers the syllabi prescribed by various university of India-B.E. College Shibpur, Jadavpur University, Burdman University, North Bengal University, Bombay University etc. This book will therefore be useful to students preparing for Degree, Diploma and Industrial Engineering examination or for examinations governed by various professional bodies. ?OUTSTANDING FEATURES: All the text has been explained in a simple language. This book will be useful for various branches, competitive examinations, engineering services and ICS Examinations. Number of problems have been solved in detail. Subject matter is supported by very good diagrams. The price of this book itself is a big consideration. ?RECOMMENDATIONS: A Text book is for Degree, Diploma and Industrial Engg. Students, Competitive Examination, ICS, and AMIE Examinations In S.I Units and A.I.M.E. (India) Students and Practicing Civil Engineers. ?ABOUT THE AUTHOR: Dr. M.N. Maulik B.Sc. (Cal), B.Sc. Engineering (Civil) (London) Ph.D (Ind.) Assistant Professor Civil Engineering Department Jalpaiguri Govt. Engineering College Jalpaiguri, West Bengal ?BOOK DETAILS: ISBN: 978-81-89401-38-2 Pages: 176 + 8 Edition: 12th, Year-2018 Size: 5.4 x 8.5 ?PUBLISHED BY: STANDARD BOOK HOUSE Since 1960 Unit of Rajsons Publications Pvt Ltd Regd Office: 4262/3A Ground Floor Ansari Road Daryaganj New Delhi-110002 +91 011 43551185/43551085/43751128/23250212 Retail Office : 1705-A Nai Sarak Delhi-110006 011 23265506 Website: www.standardbookhouse.com A venture of Rajsons Group of Companies

The proceedings of this conclave include invited talks from nearly a dozen persons of eminence from across the country including the Industry, academia and the Government organisations. This Conclave Brought together all the stake-holders, viz., Industry, Academic, Innovators, Entrepreneurs, R&D organisations, and Policy makers to synergistically discuss, share, display and learn about the cutting edge innovations and technologies that can help enhancing the productivity, improve quality of production, enhance self-reliance and act as a catalyst to the economic growth of the country.

Assessing and Measuring Environmental Impact and Sustainability answers the question "what are the available methodologies to assess the environmental sustainability of a product, system or process? Multiple well-known authors share their expertise in order to give a broad perspective of this issue from a chemical and environmental engineering perspective. This mathematical, quantitative book includes many case studies to assist with the practical application of environmental and sustainability methods. Readers learn how to efficiently assess and use these methods. This book summarizes all relevant environmental methodologies to assess the sustainability of a product and tools, in order to develop more green products or processes. With life cycle assessment as its main methodology, this book speaks to engineers interested in environmental impact and sustainability. Helps engineers to assess, evaluate, and measure sustainability in industry Provides workable approaches to environmental and sustainability assessment

Readers learn tools to assess the sustainability of a process or product and to design it in an environmentally friendly way

This book brings together, and integrates the three principal areas of environmental engineering water, air, and solid waste management. It introduces a unique approach by emphasizing the relationship between the principles observed in natural purification processes and those employed in engineered systems. First, the physical, chemical, mathematical, and biological principles that define, measure and quantify environmental quality are described. Next, the processes by which nature assimilates waste material are discussed and the natural purification processes that form the basis of engineered systems are detailed. Finally, the engineering principles and practices involved in the design and operation of environmental engineering works are covered at length. Written in a lucid style and offering abundant illustrations and problems, the book provides a treatment of environmental engineering that can be understood by a wide range of readers.

With the advancement of new technologies, existing wastewater treatment units need to be reexamined to make them more efficient and to release the load currently placed on them. Thus, there is an urgent need to develop and adopt the latest design methodology to determine and remove harmful impurities from water sources. *Advanced Design of Wastewater Treatment Plants: Emerging Research and Opportunities* is a critical scholarly resource that explores the design of various units of wastewater treatment plants and treatment technologies that can produce reusable quality water from wastewater. The book covers topics that include the basic philosophy of wastewater treatment, designing principles of various wastewater treatment units, conventional treatment systems, and advanced treatment processes. It is an integral reference source for engineers, environmentalists, waste authorities, solid waste management companies, landfill operators, legislators, researchers, and academicians.

Studies the dynamic behavior of energy and environment systems to aid in energy and environmental policy planning for sustainable development. The author considers modelling of energy and environment with micro and macro level applications for developing countries using both simulation and optimization techniques. He also presents a plan for integrated rural energy systems to promote sustainable development. Annotation copyrighted by Book News, Inc., Portland, OR

The book provides primary information about civil engineering to both a civil and non-civil engineering audience in areas such as construction management, estate management, and building. Basic civil engineering topics like surveying, building materials, construction technology and management, concrete technology, steel structures, soil mechanics and foundations, water resources, transportation and environment engineering are explained in detail. Codal provisions of US, UK and India are included to cater to a global audience. Insights into techniques like modern surveying equipment and technologies, sustainable construction materials, and modern construction materials are also included. Key features: • Provides a concise presentation of theory and practice for all technical in civil engineering. • Contains detailed theory with lucid illustrations. • Focuses on the management aspects of a civil engineer's job. • Addresses contemporary issues such as permitting, globalization, sustainability, and emerging technologies. • Includes codal provisions of US, UK and India. The book is aimed at professionals and senior undergraduate students in civil engineering, non-specialist civil engineering audience

This book covers the syllabi of "Environmental Engineering" and "Public Health Engineering" of various Indian Universities. The book is recommended in AICTE model curriculum. The book has been divided in 3 part; namely; Water Supply Engineering; Sewage Engineering and Air Pollution Engineering. The book is useful for Degree as well as Diploma students and is also likely to be useful for practising engineers in this field

This contributed volume is primarily intended for graduate and professional audiences. The book provides a basic understanding of urban air quality issues, root causes for local and urban air pollution, monitoring and modelling techniques, assessment, and control options to manage air quality at local and urban scale. The book also offers useful information on indoor air quality and smart sensors, which are gaining much importance in current times.

Completely covers the diploma syllabus of various State Boards of Technical Education and AMIE Section – B for the course in Environmental Engineering.

In the Indian context.

The second volume of this book is a compilation of the high-quality papers from the International Conference on Emerging Trends in Water Resources and Environmental Engineering (ETWREE 2017). Written by researchers and academicians from prestigious institutes across India, the contributions present various scenarios and discuss the challenges of climate change and its impact on the environment, water resources and industrial and socio-economic developments. The book is a valuable resource for scientists, faculties, policymakers, and stakeholders working in the field of climate and environment management to address the current global environmental challenges.

This book covers a broad group of wastes, from biowaste to hazardous waste, but primarily the largest (by mass and volume) group of wastes that are not hazardous, but also are not inert, and are problematic for three major reasons: (1) they are difficult to manage because of their volume: usually they are used in civil engineering as a common fill etc., where they are exposed to environmental conditions almost the same way as at disposal sites; (2) they are not geochemically stable and in the different periods of environmental exposure undergo transformations that might add hazardous properties to the material that are not displayed when it is freshly generated; (3) many designers and researchers in different countries involved in waste management are often not aware of time-delayed adverse environmental impact of some large-volume waste, and also do not consider some positive properties that may extend the area of their environmentally beneficial application.

[Copyright: 7ffc0d88c52e2d4a0041419e70cc53f](https://www.pdfdrive.com/Environmental-Engineering-Khanna-Publishers.html)