Building Construction Sushil Kumar | 929dcd04b1d21c1c3843d488b6d905da

Building Technology involves selecting suitable materials and carrying out building construction neatly. This book comprehensively covers all aspects of the subject and is written as per the requirements of civil engineering diploma students of West Bengal. The text is presented in simple, precise and reader-friendly language. It is amply supported by figures and tables.

KEY FEATURES • Detailed coverage of Kerala University syllabus • Simple and precise explanations • Text sufficiently illustrated by figures and tables • Relevant IS Codes listed • Exhaustive questions given

Ideal for students on all construction courses Topics presented concisely in plain language and with clear drawings Updated to include revisions to
Building and Construction regulations

The Building Construction Handbook is THE authoritative reference for all construction students and professionals. Its detailed drawings clearly illustrate the construction of building elements, and have been an invaluable guide for builders since 1988. The principles and processes of construction are explained with the concepts of design included where appropriate. Extensive coverage of building construction practice, techniques, and regulations representing both traditional procedures and modern developments are included to provide the most comprehensive and easy to understand guide to building construction. This new edition has been updated to reflect recent changes to the building regulations, as well as new material on the latest technologies used in domestic construction. Building Construction Handbook is the essential, easy-to-use resource for undergraduate and vocational students on a wide range of courses including NVQ and BTEC National, through to Higher National Certificate and Diploma, to Foundation and three-year Degree level. It is also a useful practical reference for building designers, contractors and others engaged in the construction industry.

Environmental psychology for design, third edition, shows how rooms and buildings can affect an occupant's behavior and health by explaining psychosocial responses. Recipient of the American Society of Interior Designers Joel Polsky Prize, the book introduces you to the discipline of environmental psychology and encourages you to embrace its key concepts and use them in your practice. This new edition adds information about aging and vulnerable populations and has updated resources and research.

Merging topical data from recently published review and research articles, as well as the knowledge and insight of industry experts, Omics Applications in Crop Science delves into plant science, and various technologies that use omics in agriculture. This book concentrates on crop breeding and environmental applications, and examines the applications of various omics technologies including genomics, transcriptomics, proteomics, metabolomics to important agronomic, horticultural, medicinal, plantation, fiber, forage, and bioenergy crops. It covers the application of omics technologies in several important crops, including cereal, and pulse. It explores the brassica species, drought tolerance in rice, and genetic engineering of the potato. The book discusses temperate fruits; and omics of medicinal plants, the metabolomics of Catharanthus.
A composite sandwich panel is a hybrid material made up of constituents such as a face sheet, a core, and adhesive film for bonding the face sheet and core together. Advances in materials have provided designers with several choices for developing sandwich structures with advanced functionalities. The selection of a material in the sandwich construction is based on the cost, availability, strength requirements, ease of manufacturing, machinability, and post-manufacturing process requirements. Sandwich Composites: Fabrication and Characterization provides insights into composite sandwich panels based on the material aspects, mechanical properties, defect characterization, and secondary processes after the fabrication, such as drilling and repair. FEATURES Outlines existing fabrication methods and various materials aspects Examines composite sandwich panels made of different face sheets and core materials Covers the response of composite sandwich panels to static and dynamic loads Describes parameters governing the drilling process and repair procedures Discusses the applications of composite sandwich panels in various fields Explores the role of 3D printing in the fabrication of composite sandwich panels Due to the wide scope of the topics covered, this book is suitable for researchers and scholars in the research and development of composite sandwich panels. This book can also be used as a reference by professionals and engineers interested in understanding the factors governing the material properties, material
response, and the failure behavior under various mechanical loads.

Differential gene regulation and targeted therapy are the critical aspects of several cancers. This book covers specific gene regulation and targeted therapies in different malignancies. It offers a comprehensive assessment of the transcriptional dysregulation in cancer, and considers some examples of transcriptional regulators as definitive oncogenic drivers in solid tumors, followed by a brief discussion of transcriptional effectors of the programs they drive, and discusses its specific targets. Most targeted therapeutics developed to date have been directed against a limited set of oncogenic drivers, exemplified by those encoding cell surface or cytoplasmic kinases that function in intracellular signaling cascades.

Power Cable Technology provides a precise understanding of the design, manufacture, installation, and testing of a range of electric power cables—from low-voltage, 1,000/1,100V cables to extra-high-voltage, 400kV cables—with reference to future trends in the industry. The authors’ mantra is: know your cable. Thus, the book begins with a comprehensive overview of power cable design and manufacturing through the ages, and then: Describes the characteristics of the materials currently used in the production of various power cables Explains how to calculate the die orifice for drawing wires, how tolerance in manufacturing affects material weight and consumption, and how and why lubricants are used Addresses the formation, stranded, and insulation of the electrical conductors, as well as the sheathing, armouring, and protective covering of the power cables Delivers an in-depth discussion of quality systems, quality control, and performance testing Covers the many nuances of cable installation, including laying, jointing, and terminating Throughout, the authors emphasise consonance between design theory and practical application to ensure production of a quality power cable at a reasonable cost. They also underscore the importance of careful handling, making Power Cable Technology a must read for power cable engineers and technicians alike.

Combining select chapters from Grigsby's standard-setting The Electric Power Engineering Handbook with several chapters not found in the original work, Electric Power Substations Engineering became widely popular for its comprehensive, tutorial-style treatment of the theory, design, analysis, operation, and protection of power substations. For its

Power System SCADA and Smart Grids brings together in one concise
volume the fundamentals and possible application functions of power system supervisory control and data acquisition (SCADA). The text begins by providing an overview of SCADA systems, evolution, and use in power systems and the data acquisition process. It then describes the components of SCADA systems, from the legacy remote terminal units (RTUs) to the latest intelligent electronic devices (IEDs), data concentrators, and master stations, as well as: Examines the building and practical implementation of different SCADA systems Offers a comprehensive discussion of the data communication, protocols, and media usage Covers substation automation (SA), which forms the basis for transmission, distribution, and customer automation Addresses distribution automation and distribution management systems (DA/DMS) and energy management systems (EMS) for transmission control centers Discusses smart distribution, smart transmission, and smart grid solutions such as smart homes with home energy management systems (HEMs), plugged hybrid electric vehicles, and more Power System SCADA and Smart Grids is designed to assist electrical engineering students, researchers, and practitioners alike in acquiring a solid understanding of SCADA systems and application functions in generation, transmission, and distribution systems, which are evolving day by day, to help them adapt to new challenges effortlessly. The book reveals the inner secrets of SCADA systems, unveils the potential of the smart grid, and inspires more minds to get involved in the development process.
Advances in Animal Genomics provides an outstanding collection of integrated strategies involving traditional and modern - omics (structural, functional, comparative and epigenomics) approaches and genomics-assisted breeding methods which animal biotechnologists can utilize to dissect and decode the molecular and gene regulatory networks involved in the complex quantitative yield and stress tolerance traits in livestock. Written by international experts on animal genomics, this book explores the recent advances in high-throughput, next-generation whole genome and transcriptome sequencing, array-based genotyping, and modern bioinformatics approaches which have enabled to produce huge genomic and transcriptomic resources globally on a genome-wide scale. This book is an important resource for researchers, students, educators and professionals in agriculture, veterinary and biotechnology sciences that enables them to solve problems regarding sustainable development with the help of current innovative biotechnologies. Integrates basic and advanced concepts of animal biotechnology and presents future developments Describes current high-throughput next-generation whole genome and transcriptome sequencing, array-based genotyping, and modern bioinformatics approaches for sustainable livestock production Illustrates integrated strategies to dissect and decode the molecular and gene regulatory networks involved in complex quantitative yield and stress tolerance traits in livestock Ensures readers will gain a strong grasp of biotechnology for sustainable livestock production with its well-illustrated discussion

This book details microbial remediation of azo dyes from wastewater including information on existing methods and technologies, the graduation of existing technologies, the emergence of new technologies, industrial practices and real-case studies. Emphasis is on the elimination of toxic pollutants from wastewater through bacterial approach.

This book brings together concepts from the building, environmental, behavioural and health sciences to provide an interdisciplinary understanding of office and workplace design. Today, with changes in the world of work and the relentless surge in technology, offices have emerged as the repositories of organizational symbolism, denoted by the
spatial design of offices, physical settings and the built environment (architecture, urban locale). Drawing on Euclidian geometry that quantifies space as the distance between two or more points, a body of knowledge on office buildings, the concept of office and office space, and the interrelationships of spatial and behavioural attributes in office design are elucidated. Building and office work-related illnesses, namely sick building syndrome and ailments arising from the indoor environment, and the menace of musculoskeletal disorders are the alarming manifestations that critically affect employee satisfaction, morale and work outcomes. With a focus on office ergonomics, the book brings the discussion on the fundamentals of work design, with emphasis on computer workstation users. Strategic guidance of lighting systems and visual performance in workplaces are directed for better application of ergonomics and improvement in office indoor environment. It discusses the profiles of bioclimatic, indoor air quality, ventilation intervention, lighting and acoustic characteristics in office buildings. Emphasis has been given to the energy performance of buildings, and contemporary perspectives of building sustainability, such as green office building assessment schemes, and national and international building-related standards and codes. Intended for students and professionals from ergonomics, architecture, interior design, as well as construction engineers, health care professionals, and office planners, the book brings a unified overview of the health, safety and environment issues associated with the design of office buildings.

Biotechnological Advances for Microbiology, Molecular Biology, and Nanotechnology: An Interdisciplinary Approach to the Life Sciences presents cutting-edge research associated with the beneficial implications of biotechnology on human welfare. The volume mainly focuses on the highly demanding thrust areas of biotechnology that are microbiology, molecular biology, and nanotechnology. The book provides a detailed overview of the beneficial roles of microbes and nanotechnology-based engineered particles in biological developments. Also, it highlights the role of epigenetic machinery and redox modulators during the development of diseases. In addition, it provides research on nanotechnology-based applications in tissue engineering, stem cell, and regenerative medicines. Overall, the book provides an extended platform for acquiring the methodological knowledge needed for today’s biotechnological applications, such as DNA methylation, redox homeostasis, CRISPR, nano-based drug delivery systems, proteomics, genomics, metagenomics, bioluminescence, bioreactors, bioremediation, biosensors, etc. Divided
into three sections, the book first highlights some recent trends in applied microbiology used in different areas, such as crop improvement, wastewater treatment, drug delivery, healthcare management, and more. The volume goes on to cover some advances in cellular and molecular mechanisms, such as CRISPR technology in biological systems, induced stem cells in disease prevention, integrated omics technology, and others. The volume also explores the indispensable role of nanotechnology in the precisely modulating intricate functioning of an organism in diagnostic and therapy along its application in tissue engineering and regenerative medicine and in food science as well as its role in ecological sustainability. This multidisciplinary volume will be highly valuable for the researchers, scientists, biologists, and faculty and students striving to expand their horizon of knowledge in their respective fields.

A candid tell-all tale of India’s most debated sector Starting off as a trainee engineer, Sushil Kumar Sayal was determined to be a success in real estate, at a time when it was viewed as an unscrupulous profession. He has since worked with companies like Mahindra Gesco, DLF and Alpha G, and has played a significant role in establishing the Real Estate Asset Management (REAM) model in the country. In his fast-paced memoir are many anecdotes of dodgy builders, maverick investors and corrupt bureaucrats..

Structural Analysis, or the ‘Theory of Structures’, is an important subject for civil engineering students who are required to analyze and design structures. It is a vast field and is largely taught at the undergraduate level. A few topics like Matrix Method and Plastic Analysis are also taught at the postgraduate level and in structural engineering electives. The entire course has been covered in two volumes – Structural Analysis I and II. Structural Analysis I deals with the basics of structural analysis, measurements of deflection, various types of deflection, loads and influence lines, etc.

Building Materials and Construction is primarily written for the students of Civil Engineering to make them familiar with building materials and construction practices to build their interest in the field. The book starts with explanation of building material concepts and goes on to explain all the important materials like Lime, Bricks, Cement, Timber, Concrete etc. in separate chapters following the same flow as prescribed in major universities. Special emphasis is given on construction materials such as
foundation work, stone and brick masonry, plastering work, door and window design, roof and floors, DPC etc.

This book presents select proceedings of the International Conference on Sustainable Construction and Building Materials (ICSCBM 2018), and examines a range of durable, energy-efficient, and next-generation construction and building materials produced from industrial wastes and byproducts. The topics covered include alternative, eco-friendly construction and building materials, next-generation concretes, energy efficiency in construction, and sustainability in construction project management. The book also discusses various properties and performance attributes of modern-age concretes including their durability, workability, and carbon footprint. As such, it offers a valuable reference for beginners, researchers, and professionals interested in sustainable construction and allied fields.

This volume discusses the development of cultural studies in India. It shows how inter-disciplinarity and cultural pluralism form the basis of this emerging field. It deals with contemporary debates and interpretations of post-colonial theory, subaltern studies, Marxism and post-Marxism, nationalism and post-nationalism. Drawing upon literature, linguistics, history, political science, media and theatre studies, and cultural anthropology, it explores themes such as caste, indigenous peoples, vernacular languages and folklore and their role in the making of historical consciousness. A significant intervention in the area, this book will be useful to scholars and students of cultural studies and theory, literature, history, cultural anthropology, sociology, and media and mass communication, as well as the general reader.

This book, a companion volume to the author’s book on Building Materials, explains the basics of building construction practices in an accessible style. It discusses in detail every element of building construction from start to the finish—from site preparation to provision of services (such as water supply, drainage and electricity supply). Besides, the text describes acoustics and maintenance of buildings, which are important considerations in construction of buildings. This book is
primarily designed as an introductory textbook for under-graduate students of civil engineering as well as those pursuing diploma courses in civil engineering and architecture. Practising engineers and any person who has a keen interest in the construction and maintenance of his/her own building will also find the book very helpful. **KEY FEATURES:**

- Separate Appendix is given to discuss earthquake-resistant design of buildings.
- Review Questions provided at the end of each chapter enable the readers to recapitulate the topics.
- The references to IS codes and standards make the text suitable for further study and field use.
- Because of the lecture-based presentation of the subject, the text will be of considerable benefit for the young teachers for their classroom lectures.

This well-known and comprehensive text-book, now in its Twenty-Fifth Edition presents in lucid language the complete and full details of the various complicated topics on the subject of Building Construction. The entire subject-matter of this acclaimed book has been split up in two parts:

- **Elementary Building Construction**
- **Advanced Building Construction**

It is characterised by the clear, methodical and also step-by-step treatment of the subject, and written in a highly readable style. The SI units have been used throughout the book.

The construction of buildings and structures relies on having a thorough understanding of building materials. Without this knowledge it would not be possible to build safe, efficient and long-lasting buildings, structures and dwellings. Building materials in civil engineering provides an overview of the complete range of building materials available to civil engineers and all those involved in the building and construction industries. The book begins with an introductory chapter describing the basic properties of building materials. Further chapters cover the basic properties of building materials, air hardening cement materials, cement, concrete, building mortar, wall and roof materials, construction steel, wood, waterproof materials, building plastics, heat-insulating materials and sound-absorbing materials and finishing materials. Each chapter includes a series of questions, allowing readers to test the knowledge they have gained. A detailed appendix gives information on the testing of building materials.

With its distinguished editor and eminent editorial committee, Building materials in civil engineering is a standard introductory reference book on the complete range of building materials. It is aimed at students of civil engineering, construction engineering and allied courses including water supply and drainage engineering. It also serves as a source of essential information.
background information for engineers and professionals in the civil engineering and construction sector. Provides an overview of the complete range of building materials available to civil engineers and all those involved in the building and construction industries. Explores the basic properties of building materials featuring air hardening cement materials, wall and roof materials, and sound-absorbing materials. Each chapter includes a series of questions, allowing readers to test the knowledge they have gained.

ABOUT THE BOOK: feel proud in issuing the Seventh Edition of the book "Building Construction and Materials". The subject "Building Construction and Materials" is a very vast and tedious subject of Civil Engineering. Author has tried to explain all the aspects of this subject in a very simple and lucid language. The Book is entirely in SI Units. The book covers the syllabi prescribed by all the Indian universities, State Technical Boards and A.M.I.E. (India) examinations. The book is also very useful for Engineers involved in construction industry. All the relevant I.S.I. Recommendations and other useful data have been incorporated in the book. Author has tried to explain all the aspects with the help of lot of neat drawings. It is hoped that the book will satisfy all the needs of the students and practising engineers in regard to this subject. In order to increase the usefulness of the book basic engineering materials have been added in this revised 17th edition. Basic engineering material like stone, bricks, lime, cement, timber, and iron has been added in this edition.


This book facilitates the study of problematic chemicals in such applications as chemical fate modeling, chemical process design, and experimental design. This volume provides comprehensive coverage of modern biochemical engineering, detailing the basic concepts underlying the behavior of bioprocesses as well as advances in bioprocess and biochemical engineering science. It combines contemporary engineering science with relevant biological concepts in a comprehensive introduction.
to biochemical engineering. This book provides both a rigorous view and a more practical, understandable view of chemical compounds and biochemical engineering and their applications. Every section of the book has been expanded where relevant to take account of significant new discoveries and realizations of the importance of key concepts. Furthermore, emphases are placed on the underlying fundamentals and on acquisition of a broad and comprehensive grasp of the field as a whole.

Over the last few decades, the rapid and vast development of advanced microbial bioresources and metagenomics techniques has completely transformed the field of microbial biotechnology. Our understanding of microbial diversity, evolutionary biology, and microbial interaction with their animal and plant hosts at molecular level has been revolutionized with an abundance of new research. This new volume, Advances in Microbial Biotechnology: Current Trends and Future Prospect, focuses on the application of microorganisms for several purposes: for plant protection and improvement, for environmental remediation purposes, and for the improvement of human health. Various applications of microorganisms are covered broadly and have been appropriately reflected in depth in different chapters. The book is divided into four major sections: applied microbiology in agriculture microbes in the environment microbes in human health microbes in nanotechnology The book provides insight into the diverse microorganisms that have been explored and exploited in the development of various applications for agricultural improvements. The book also looks at the application of microbes for the removal of pollutants and the recovery of metals and oils. Also discussed is the detection and exploitation of microorganisms in the diagnosis of human diseases, providing possible holistic approaches to health. This new volume will provide a wealth of information on new research on the application of microbial biotechnology today.

Made from the elements, and crafted by Nature over millennia, Man is a highly complex vertebrate that needs food, water, air, sunlight and shelter from the vagaries of the weather in order to survive. He is also prey to a host of malignant influences from the surroundings he chooses to live and
work in. As architecture, medicine and other fields of science have evolved over the centuries, greater light has been shed on the myriad forces good and bad, discernible and indiscernible that act on him, some of which are positively harmful to his mental and physical health. Modern man spends a large portion of his life indoors, so buildings with bad ventilation, poorly designed furniture and inadequate sunlight adversely affect his mind and body, crippling his efficiency. Moreover, several invisible but highly injurious sources such as toxic vapours and magnetic lines of force, also take their toll on his health. Ancient civilizations gave prime importance to these factors and many of their neglected techniques, such as directionology, are being revived today. This absorbing book takes a holistic overview of Man's relationship to his surroundings, and contains many a vital clue on how to avert the ill effects of poor surroundings. No architect, interior designer, building contractor, home owner or employer can afford to miss its crucial message.

This book focuses on the three inevitable facets of e-government, namely policies, processes and technologies. The policies discusses the genesis and revitalization of government policies; processes talks about ongoing e-government practices across developing countries; technology reveals the inclusion of novel technologies.

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