3 Sem Rgpv For Civil Engineering

Basic Civil EngineeringInternet of Things: A Hands-On ApproachBasics of Mechanical EngineeringEnergy, Environment, Ecology and SocietyEssentials of Bridge EngineeringBasic Mechanical Engineering (Be 204)Matrix Analysis Framed StructuresBasic Electrical EngineeringBridge EngineeringData Structures Using 'C'Technical CommunicationGreat Experiments in PhysicsPRINCIPLES OF FIRE SAFETY ENGINEERINGDesign of Steel StructuresEnergy Systems and SustainabilityAdvanced Engineering MathematicsWeb Commerce Technology HandbookAnalog Electronic CircuitsPrinciples of LasersProgramming In C#Basic Computer Engineering PreciseBasic Electrical And Electronics EngineeringEnvironmental StudiesCoping with Natural HazardsFundamentals of Remote SensingElectron Beam WeldingBasic Civil EngineeringRAILWAY ENGINEERINGBasic Civil and Mechanical EngineeringJava Network ProgrammingWaste Water EngineeringBasic Civil Engineering and Engineering Mechanics (RGPV, Bhopal)Computer GraphicsAdvanced Machining ProcessesStructural AnalysisCompiler DesignRemote Sensing and GISNanotechnologyBasic Engineering Mathematics Volume - II (For 3rd Semester of RGPV, Bhopal)Surveying and Levelling

Basic Civil Engineering

Internet of Things: A Hands-On Approach

Basics of Mechanical Engineering

This guide shows corporate network administrators and small business owners how to plan, implement, and maintain an Internet Commerce Center. "Cyberpreneurs" will obtain the know-how to market, sell, and transact online.

Energy, Environment, Ecology and Society

The original accounts of twenty-four experiments that created modern physics, retaining the original illustrations where possible.

Essentials of Bridge Engineering

A package which provides an in-depth tutorial on programming networked applications with Java. It offers complete coverage of the Java networking APIs, including streams, TCP/IP and UDP/IP, with practical examples. The pack presents a cryptographic framework for developing Internet applications.

Basic Mechanical Engineering (Be 204)

This book is meant for the first course on Surveying and Levelling of most of the universities. It covers all basic methods of surveying and levelling, applications of surveying and levelling, calculation of areas and volumes of earth work involved in the field work. Minor instruments used in the field are also explained. The author has taken care to use simple and lucid language and to explain the subject with neat sketches. A number of problems are solved to make the subject clear. Diploma and degree students of Civil Engineering, Architecture and Mining will find this book useful

Matrix Analysis Framed Structures

Electrical EngineeringEssence of electricity, Conductors, Semiconductors and insulators (elementary treatment only); Electric field, electric current, Potential and potential difference, Electromotive force, Electric power, Ohm's law, Basic circuit components, Electromagnetism related laws, Magnetic field due to electric current flow, Force on a current carrying conductor placed in a magnetic field, Faradays laws of electromagnetic induction. Types of induced EMF's, Kirchhoff's laws, Simple problems.Network AnalysisBasic definitions, Types of elements, types of sources, Resistive networks, Inductive networks, Capacitive networks, Series parallel circuits, Star delta and delta star transformation, Network theorems-Superposition, Thevenins's, Maximum power transfer theorems and simple problems.Magnetic CircuitsBasic definitions, Analogy between electric and magnetic circuits, Magnetization characteristics of Ferro magnetic materials, Self inductance and mutual inductance, Energy in linear magnetic systems, Coils connected in series, Attracting force or electromagnets.Alternating QuantitiesPrinciple of ac voltages, Waveforms and basic definitions, Relationship between frequency, Speed and number of poles, Root mean square and average values of alternating currents and voltage, form factor and peak factor, Phasor representation of alternating quantities, The J operator and phasor algebra, analysis of ac circuits with single basic network element, single phase series circuits, Single phase parallel circuits, Single phase series parallel circuits, Power in ac circuits.TransformersPrinciples of operation, Constructional details, Ideal Transformer and Practical Transformer, Losses, Transformer Test, Efficiency and Regulation Calculations.Direct current machinesPrinciple of operation of dc machines, Armature windings, E.M.F. equation in a dc machine, Torque production in a dc machine, Operation of a dc machine as a generator, Operation of a dc machine as a motor.A.C. MachinesThree phase induction motor, principle of operation, Slip and rotor frequency, Torque (simple problems).Synchronous MachinesPrinciple of operation, EMF equation (Simple problems on EMF). Synchronous motor principle and operation (Elementary treatment

only)Basic InstrumentClassification of instruments, Operating principles, Essential features of measuring instruments, Moving coil permanent magnet (PMMC) instruments, Moving Iron of Ammeters and Voltmeters (elementary treatment only).

Basic Electrical Engineering

Bridge Engineering

Fire Safety is the science of fire and the means of protection against it. Being multidisciplinary in nature, the subject is closely related to chemical engineering, building services, electrical, electronics, structural and civil engineering and industrial engineering. There is a dearth of books on this subject, and therefore, the author aims to provide readers with a lucidly written, comprehensive text explaining the fundamentals of the fire process and means of protection. Comprising twelve chapters, this well-illustrated book with data tables begins with the introduction of the subject and then proceeds to explain fire process, its chemistry, heat and temperature in fire, hydraulics, active and passive fire protection systems, risk management and insurance, and finally investigations and reconstructions of fire incidents. The book appends useful information on fire safety including cases to explain the causes of fire, Indian Standards on fire safety, explosion and properties of some flammable materials. NEW TO THE SECOND EDITION • A chapter on Modelling for Fire Safety • Updated data tables and text wherever necessary TARGET AUDIENCE B.Tech. (Safety and Fire Engineering) B.Tech. (Chemical Engineering)

Data Structures Using 'C'

Technical Communication

Potential of Nanotechnology is immense and encompasses virtually every field of life. Technologists and researchers all across the globe have realized this and call it the Technology of the Future. The book is intended to develop interest amongst students of all branches of Engineering and incumbent researchers so that they get to know fundamentals of the subject. The books deals with all the aspects of nanotechnology and its fundamentals and applications, i.e. Nanotechnology, tools and techniques, nanomaterials, nanocomputers, nanocomposites, risks related with the use of nanotechnology and its relation with the environment. Applications of nanotechnology in textiles, solar power, electronics, space explorations and in communication find a reasonable place in the book.

Great Experiments in Physics

PRINCIPLES OF FIRE SAFETY 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.

Design of Steel Structures

Energy Systems and Sustainability

The present book is an up-to-date introduction to Bridge Engineering, which is one of the most fascinating fields of Civil Engineering. The discussion covers all the components of a complete bridge and includes the factors to be considered in the investigation, design, construction and maintenance of highway and railway bridges. Reference has been made to the current version of the relevant codes of practice as obtaining in India. Contents: Introduction / Investigation for Bridges / Standard Specifications for Road Bridges / Standards for Railway Bridges / General Design Considerations / Culverts / Reinforced Concrete Bridges / Prestressed Concrete Bridges / Steel Bridges / Masonry and Composite Bridges / Temporary and Movable Bridges / Substructure / Foundations / Bearings, Joints and Appurtenances / Construction and Maintenance / Appendices / Index

Advanced Engineering Mathematics

This book is the result of more than ten years of research and teaching in the field of quantum electronics. The purpose of the book is to introduce the principles of lasers, starting from elementary notions of quantum mechanics and electromagnetism. Because it is an introductory book, an effort has been made to make it self contained to minimize the need for reference to other works. For the same reason; the references have been limited (whenever possible) either to review papers or to papers of seminal importance. The organization of the book is based on the fact that a laser can be thought of as consisting of three elements: (i) an active material, (ii) a pumping system, and (iii) a suitable resonator. Ac

cordingly, after an introductory chapter, the next three chapters deal, respectively, with the interaction of radiation with matter, pumping processes, and the theory of passive optical resonators.

Web Commerce Technology Handbook

The book aims at presenting the topics of Bridge Engineering expressed in simple and lucid language. The presentation is comprehensive and methodical as well as interesting and easy to follow.

Analog Electronic Circuits

Written with undergraduates and graduates in mind, this volume provides a thorough introduction to the economic, social, environmental and policy issues raised by current systems of energy use. The authors also describe the key physical and engineering features of these energy production systems.

Principles of Lasers

Programming In C#

Matrix analysis of structures is a vital subject to every structural analyst, whether working in aero-astro, civil, or mechanical engineering. It provides a comprehensive approach to the analysis of a wide variety of structural types, and therefore offers a major advantage over traditional metho~ which often differ for each type of structure. The matrix approach also provides an efficient means of describing various steps in the analysis and is easily programmed for digital computers. Use of matrices is natural when performing calculations with a digital computer, because matrices permit large groups of numbers to be manipulated in a simple and effective manner. This book, now in its third edition, was written for both college students and engineers in industry. It serves as a textbook for courses at either the senior or first-year graduate level, and it also provides a permanent reference for practicing engineers. The book explains both the theory and the practical implementation of matrix methods of structural analysis. Emphasis is placed on developing a physical understanding of the theory and the ability to use computer programs for performing structural calculations.

Basic Computer Engineering Precise

Remote Sensing and GIS 2e is a comprehensive textbook specially designed to meet the requirements of undergraduate

courses in civil, geoinformatics/geomatics, geotechnical, survey, and environmental engineering. It will equally meet the requirements of undergraduate courses in geological science, environmental science, earth sciences, geography, geophysics, earth resources management, environmental management, and disaster management.

Basic Electrical And Electronics Engineering

Environmental Studies

Written by the most well known face of India s IT literacy movement, this book is designed for the first course in C# taken by undergraduate students in Computers and Information Technology. The revised edition maintains the lucid flow and continuity which has been the strength of the book.

Coping with Natural Hazards

D.C. CircuitsCircuits : Identifying the elements and the connected terminology, Kirchhoff's laws - Statement and illustration, Method of solving circuits by Kirchhoff's laws, Computation of resistance at constant temperature, Temperature dependence of resistance, Computation of resistance at different temperatures, Ohm's law - Statement, Illustration and limitation, Units - Work, Power and energy (electrical, thermal and mechanical)A.C. FundamentalsGeneration of alternating emf, Concept of 3-phase EMF generation, Root mean square or effective value, Average value of A.C., Phasor representation of alternating quantities, Analysis of A.C. circuit representation of alternating quantities in rectangular and polar forms, Introduction of resistors, Conductors and capacitors, R-L series circuits, R-C series circuits, R-L-C series circuits, Admittance and its components, Resonance in series and parallel, Analysis of simple 3-phase system, Star-delta connections and conversion.Magnetic Circuits and MachinesComparison between magnetic and electric circuits, Electromagnetic induction, Magnetic effects of electric current, Current carrying conductor in magnetic field, Law of electromagnetic induction, Self inductance, Mutual inductance, coupling coefficient between two magnetically coupled circuits.Transformer : Principle, construction, working, efficiency, application.D.C. Generator : Principle, construction, working, application. D.C. motor : Principle, construction, working, application.Three phase induction motor : Principle, construction, working, application.Measuring InstrumentsClassification of instruments, Basic principles of indicating instruments, Moving iron instruments - Attraction and repulsion type, Moving coil instruments - Permanent magnet - Dynamometer type, Induction type energy meter, Multimeters fundamentals of analog and digital multimeter.TransducersCapacitive transducer, Inductive transducers, Linear variable differential transformer (LVDT), Potentiometric transducer, Electrical strain gauges, Thermistor, Thermocouple, Hall effect, Piezoelectric transducer, Photoelectric transducer.Semiconductor DevicesPrinciple of operation;

Characteristic and application of PN junction diode, Zener diode, Bipolar junction, Field effect transistor, Thyristor, Opto-electronics devices, Rectifiers.Integrated CircuitsLinear ICs, Digital ICs, Linear ICs : PIN diagram and its description for IC741, IC555, IC78XX series (Regulator ICs), Digital ICs : 74XX series ICs.Digital ElectronicsBinary number system, Octal and hexadecimal, Logic Galleries, Introduction and truth tables, Flip flops and the truth tables; R-S, J-K, D and T.

Fundamentals of Remote Sensing

Electron Beam Welding

This book is a collection of twenty one papers presented during the symposium on Coping with Natural Hazards at University of Pune on 5 and 6 October 2001. This very successful symposium, organised by the National Academy of Sciences, outlined the strategies our country should adopt to be prepared to face hazards like earthquakes, floods, landslides, avalanches, cyclones, droughts and desertification. It contains papers by pre-eminent scientists and leading lights like Professors M G K Menon, P K Das, D R Sikka and R K Bhandari and many others. Each paper has been critically reviewed by atleast two experts in their respective fields.

Basic Civil Engineering

Diode CircuitsDiode resistance, Diode equivalent circuits, Transition and diffusion capacitance, Reverse recovery time, Load line analysis, Rectifiers, Clippers and clampers.Transistor BiasingOperating point, Fixed bias circuits, Emitter stabilized biased circuits, Voltage divider biased, D.C. bias with voltage feedback, Miscellaneous bias configurations, Design operations, Transistor switching networks, PNP transistors, Bias stabilization.Transistor at Low FrequenciesBJT transistor modeling, Hybrid equivalent model, CE fixed bias configuration, Voltage divider bias, Emitter follower, CB configuration, Collector feedback configuration, Hybrid equivalent model.Transistor Frequency ResponseGeneral frequency considerations, Low frequency response, Miller effect capacitance, High frequency response, Multistage frequency effects.General Amplifiers Cascade connections, Cascode connections, Darlington connections.Feedback Amplifier Feedback concept, Feedback connections type, Practical feedback circuits.Power AmplifiersDefinitions and amplifier types, Series fed class A amplifier, Transformer coupled class A amplifiers, Class B amplifier operations, Class B amplifier circuits, Amplifier distortions.OscillatorsOscillator operation, Phase shift oscillator, Wienbridge oscillator, Tuned oscillator circuits,, Crystal oscillator.FET AmplifiersFET small signal model, Biasing of FET, Common drain common gate configurations, MOSFETs, FET amplifier networks.

RAILWAY ENGINEERING

This well-known text-book now in its Nineteenth Edition, provides an up-to-date account of the basic principles on various functions and working of Railways. Its excellent material fills a significant void in the literature of Railway Engineering.

Basic Civil and Mechanical Engineering

This book presents the fundamental concepts covering various stages of remote sensing from data collection to end utilization, so that it can be appreciated irrespective of the discipline in which the reader has graduated. The physical principles on which remote sensing are based has been explained without getting into complicated mathematical equations.

Java Network Programming

Basic Engineering Mathematics Volume

Waste Water Engineering

Appropriate for one- or two-semester Advanced Engineering Mathematics courses in departments of Mathematics and Engineering. This clear, pedagogically rich book develops a strong understanding of the mathematical principles and practices that today's engineers and scientists need to know. Equally effective as either a textbook or reference manual, it approaches mathematical concepts from a practical-use perspective making physical applications more vivid and substantial. Its comprehensive instructional framework supports a conversational, down-to-earth narrative style offering easy accessibility and frequent opportunities for application and reinforcement.

Basic Civil Engineering and Engineering Mechanics (RGPV, Bhopal)

Overview of Compilation : Phases of compilation - Lexical analysis, Regular grammar and regular expression for common programming language features, Pass and phases of translation, Interpretation, Bootstrapping, Data structures in compilation - LEX lexical analyzer generator.Top Down Parsing : Context free grammars, Top down parsing, Backtracking, LL (1), Recursive descent parsing, Predictive parsing, Preprocessing steps required for predictive parsing.Bottom up Parsing : Shift reduce parsing, LR and LALR parsing, Error recovery in parsing, Handling ambiguous grammar, YACC - automatic parser generator.Semantic Analysis : Intermediate forms of source programs - abstract syntax tree, Polish notation and

three address codes. Attributed grammars, Syntax directed translation, Conversion of popular programming languages language constructs into intermediate code forms, Type checker.Symbol Tables : Symbol table format, Organization for block structures languages, Hashing, Tree structures representation of scope information. Block structures and non block structure storage allocation : Static, Runtime stack and heap storage allocation, Storage allocation for arrays, strings and records.Code Optimization : Consideration for optimization, Scope of optimization, Local optimization, Loop optimization, Frequency reduction, Folding, DAG representation.Data Flow Analysis : Flow graph, Data flow equation, Global optimization, Redundant subexpression elimination, Induction variable elements, Live variable analysis, Copy propagation.Object Code Generation : Object code forms, Machine dependent code optimization, Register allocation and assignment generic code generation algorithms, DAG for register allocation.

Computer Graphics

Translated from the German, this is a practical book for engineers which explains the trials, development and manufacturing processes involved in electron beam welding.

Advanced Machining Processes

The text material has been restructured to provide a more balanced and exhaustive coverage of the subject.The text discusses the core concepts of technical communication and explains them with the help of numerous examples and practice exercises. The book also provides support for soft skills laboratory sessions through a companion CD.With its in-depth coverage and practical orientation, the book is useful not only for students, but also as a reference material for corporate training programmes.

Structural Analysis

Compiler Design

Population, exuberant growth of urbanization, decline of cultivable lands, growing number of vehicle on the roads, deforestation, industrialization, changing pattern of consumption and exploitation of natural recourses by human activities have all threatened our basic survival on earth. In order to protect our globe from the environmental degradation, it is necessary to know the various factors by all human being. This book is written to provide a clear and authoritative introduction to the subject of Energy, Environment, Ecology and Society. Salient Features Presentation of the material in

lucid manner Distinctive coverage on all Energy Resources Presentation of suitable illustrations with clear diagrams Review questions are given in each chapter

Remote Sensing and GIS

Nanotechnology

This comprehensive textbook, now in its sixth edition, combines classical and matrix-based methods of structural analysis and develops them concurrently. New solved examples and problems have been added, giving over 140 worked examples and more than 400 problems with answers. The introductory chapter on structural analysis modelling gives a good grounding to the beginner, showing how structures can be modelled as beams, plane or space frames and trusses, plane grids or assemblages of finite element. Idealization of loads, anticipated deformations, deflected shapes and bending moment diagrams are presented. Readers are also shown how to idealize real three-dimensional structures into simplified models that can be analyzed with little or no calculation, or with more involved calculations using computers. Dynamic analysis, essential for structures subject to seismic ground motion, is further developed in this edition and in a code-neutral manner. The topic of structural reliability analysis is discussed in a new chapter. Translated into six languages, this textbook is of considerable international renown, and is widely recommended by many civil and structural engineering lecturers to their students because of its clear and thorough style and content.

Basic Engineering Mathematics Volume - II (For 3rd Semester of RGPV, Bhopal)

Internet of Things (IoT) refers to physical and virtual objects that have unique identities and are connected to the internet to facilitate intelligent applications that make energy, logistics, industrial control, retail, agriculture and many other domains "smarter". Internet of Things is a new revolution of the Internet that is rapidly gathering momentum driven by the advancements in sensor networks, mobile devices, wireless communications, networking and cloud technologies. Experts forecast that by the year 2020 there will be a total of 50 billion devices/things connected to the internet. This book is written as a textbook on Internet of Things for educational programs at colleges and universities, and also for IoT vendors and service providers who may be interested in offering a broader perspective of Internet of Things to accompany their own customer and developer training programs. The typical reader is expected to have completed a couple of courses in programming using traditional high-level languages at the college-level, and is either a senior or a beginning graduate student in one of the science, technology, engineering or mathematics (STEM) fields. Like our companion book on Cloud Computing, we have tried to write a comprehensive book that transfers knowledge through an immersive "hands on"

approach, where the reader is provided the necessary guidance and knowledge to develop working code for real-world IoT applications. Additional support is available at the book's website: www.internet-of-things-book.com Organization The book is organized into 3 main parts, comprising of a total of 11 chapters. Part I covers the building blocks of Internet of Things (IoTs) and their characteristics. A taxonomy of IoT systems is proposed comprising of various IoT levels with increasing levels of complexity. Domain specific Internet of Things and their real-world applications are described. A generic design methodology for IoT is proposed. An IoT system management approach using NETCONF-YANG is described. Part II introduces the reader to the programming aspects of Internet of Things with a view towards rapid prototyping of complex IoT applications. We chose Python as the primary programming language for this book, and an introduction to Python is also included within the text to bring readers to a common level of expertise. We describe packages, frameworks and cloud services including the WAMP-AutoBahn, Xively cloud and Amazon Web Services which can be used for developing IoT systems. We chose the Raspberry Pi device for the examples in this book. Reference architectures for different levels of IoT applications are examined in detail. Case studies with complete source code for various IoT domains including home automation, smart environment, smart cities, logistics, retail, smart energy, smart agriculture, industrial control and smart health, are described. Part III introduces the reader to advanced topics on IoT including IoT data analytics and Tools for IoT. Case studies on collecting and analyzing data generated by Internet of Things in the cloud are described.

Surveying and Levelling

This book is designed for course on Basic Civil and Mechanical Engineering. The book closely follows the undergraduate engineering syllabus. The text has been infused with several short answer questions, fill in the blanks and true or false statements which will provide competitive edge to students and prove instrumental in preparation of competitive and university examinations.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION