Engineering Mathematics Ravish Singh Mukul Bhatt

This book studies methods to concretely address inverse problems. An inverse problem arises when the causes that produced a given effect must be determined or when one seeks to indirectly estimate the parameters of a physical system. The author uses practical examples to illustrate inverse problems in physical sciences. He presents the techniques and specific methods chosen to solve inverse problems in a general domain of application, choosing to focus on a small number of methods that can be used in most applications. This book is aimed at readers with a mathematical and scientific computing background. Despite this, it is a book with a practical perspective. The methods described are applicable, have been applied, and are often illustrated by numerical examples.
Buddha on Happiness This book outlines the life and teachings of the Buddha in a very simple and lucid manner. It skilfully introduces important Buddha's teachings like Four Noble Truths, Five Precepts, Eight -Fold Path, Ten Paramitas, Concept of Emptiness, Impermanence, Cause and Effect, Middle Path, Pratityasamutpada, Meditation Technique and Nibbana that will ensure calm of disturbed mind. This book offers an insight to

transform suffering into peace and happiness. It shows how to develop kindness towards yourself and cultivate compassionate attitude towards your own pains and that of others. This book guides us to lead a happy life. If you are unhappy, disturbed and wish to find peace and happiness in your life, this is the right book to read.

Guru and Hiziroglu have produced an accessible and user-friendly text on electromagnetics that will appeal to both students and professors teaching this course. This lively book includes many worked examples and problems in every chapter, as well as chapter summaries and background revision material where appropriate. The book introduces undergraduate students to the basic concepts of electrostatic and magnetostatic fields, before moving on to cover Maxwell's equations, propagation, transmission and radiation. Chapters on the Finite Element and Finite Difference method, and a detailed appendix on the Smith chart are additional enhancements. MathCad code for many examples in the book and a comprehensive solutions set are available at www.cambridge.org/9780521830164. Overview: This book, designed for a two-semester course on engineering mathematics, presents concepts in adequate depth using step-by-step problem solving approach. Enriched with a plethora of solved examples, practice problems and engineering applications, it offers a unique

combination of theory and practice in a lucid and user-friendly manner. Features: ? Includes application-based problems—Jacobian, errors and approximation, maxima and minima under partial differential equations ? Questions from different university examination papers interspersed within the text ? Presents list of important formulae for quick recap

This book is designed for students of GTU studying the course on Environmental Science. Maintaining a holistic approach throughout, the book offers easy and logical comprehension for understanding. Concepts are explained through a variety of illustrations which will enable the students to grasp the subject easily. Highlights: 1. Complete coverage of the new GTU syllabus 2. Pictorial representation of topics for easy retention and understanding 3. Variety of chapter-end questions for students to ace their examinations 4. Additional Solved Gujarat Technical University Examination Questions from previous year

Basic Electrical and Electronics Engineering provides an overview of the basics of electrical and electronic engineering that are required at the undergraduate level. The book allows students outside electrical and electronics engineering to easily

This text teaches maths in a step-by-step fashion – ideal for students on first-year engineering and pre-

degree courses. - Hundreds of examples and exercises, the majority set in an applied engineering context so that you immediately see the purpose of what you are learning - Introductory chapter revises indices, fractions, decimals, percentages and ratios - Fully worked solutions to every problem on the companion website at www.palgrave.com/engineering/singh plus searchable glossary, e-index, extra exercises, extra content and more!

France and her Eastern Allies, 1919–1925 was first published in 1962. Minnesota Archive Editions uses digital technology to make long-unavailable books once again accessible, and are published unaltered from the original University of Minnesota Press editions. Relations between France, Czechoslovakia, and Poland occupied an important position in European diplomacy in the years between World War I and World War II. Beginning with the breakdown of the old political, social, and economic order on the Continent during the first World War, these relations went through many changes. This book deals with the crucial period from the Paris Peace Conference of 1919 to the signing of the Locarno Pact in 1925. During this time France attempted to establish an eastern barrier of buffer states with Poland and Czechoslovakia at the core, with the aim of keeping Germany and Bolshevik Russia apart. This, France hoped, would guarantee European peace and security. Although an effective eastern barrier was never realized, the attempt to create one was a worthy and important undertaking. Professor Wandycz considers in detail the various aspects of the complex relationship between France and the two western Slav states — geographic, economic, social, and

political. In addition, he provides a clear and interesting picture of some of the personalities involved. Through the use of hitherto unpublished source material, he throws new light on many events of general European diplomatic history as well as on Polish, French, and Czechoslovak foreign policy in particular.

Advanced Engineering Mathematics with MATLAB, Fourth Edition builds upon three successful previous editions. It is written for today's STEM (science, technology, engineering, and mathematics) student. Three assumptions under lie its structure: (1) All students need a firm grasp of the traditional disciplines of ordinary and partial differential equations, vector calculus and linear algebra. (2) The modern student must have a strong foundation in transform methods because they provide the mathematical basis for electrical and communication studies. (3) The biological revolution requires an understanding of stochastic (random) processes. The chapter on Complex Variables, positioned as the first chapter in previous editions, is now moved to Chapter 10. The author employs MATLAB to reinforce concepts and solve problems that require heavy computation. Along with several updates and changes from the third edition, the text continues to evolve to meet the needs of today's instructors and students. Features: Complex Variables, formerly Chapter 1, is now Chapter 10. A new Chapter 18: Itô's Stochastic Calculus. Implements numerical methods using MATLAB, updated and expanded Takes into account the increasing use of probabilistic methods in engineering and the physical sciences Includes many updated examples, exercises, and projects drawn from the scientific and engineering literature Draws on the author's many years of experience as a practitioner and instructor Gives answers to odd-numbered problems in the back of the book Offers downloadable MATLAB code at www.crcpress.com

This book has been designed as per the Advanced Engineering Mathematics course offered in the third semester to the undergraduate engineering students of GTU. It provides crisp as well as complete explanation of topics which will help in easy understanding of the basic concepts. The systematic approach followed in the book will enable readers to develop a logical perspective for solving problems. A label-defying anthology for every young adult Insecurities and assurances, conflict and solidarity, fearfulness and courage-the personal histories, stories and #ownvoices in this anthology cover a lot of ground in just a few pages. Let them spark conversations on love, identity, disability, family, body positivity, ambition and other tough stuff. After all, no matter how old we get, growing up can feel like one big mistake. - Helmed by a powerful foreword by Shaheen Bhatt - A modern and bold take on the once-popular Chicken Soup for the Soul series, to give readers hope, comfort, courage and love with stories that are told from the heart - Includes fiction, non-fiction and poetry from: Saina Nehwal, badminton superstar Parvati Sharma, author of several children's and adult novels Japleen Pasricha, founder-CEO of Feminism in India Nandana Dev Sen, writer, child-rights activist and award-winning actor Anusha Misra, founder of Revival Disability Magazine Nikhil Taneja, CEO of We Are Yuvaa foundation Andaleeb Wajid, author of over twenty-five novels Neha Singh, children's author, theatre practitioner and women's rights activist Jane De Suza, award-winning author of children's fiction Hannah Lalhlanpuii, debut author Sonaksha Iyengar, illustrator, graphic recorder and book designer Kautuk Srivastava, writer and comedian This book is designed based on revised syllabus of Gujarat Technological University, Gujarat (AICTE model curriculum) for under-graduate (B.Tech/BE) students of all branches, those who study Basic Electrical Engineering as one of the

subject in their curriculum. The primary goal of this book is to establish a firm understanding of the basic laws of Electric Circuits, Network Theorems, Resonance, Three-phase circuits, Transformers, Electrical Machines and Electrical Installation.

This book is designed for the 3rd semester gtu engineering students pursuing the probability and statistics (code 3130006). The crisp but complete explanation of topics will help the students easily understand the basic concepts. The tutorial approach (I.E. Teach by example) followed in the text will enable students develop a logical perspective to solving problems.

This book has been designed as per the Mathematics - 2 course offered in the first year to the undergraduate engineering students of GTU. The book provides in-depth coverage and complete explanation of topics which will help in easy understanding of the basic concepts. The methodical approach followed in the book will enable readers to develop a logical outlook for the course. Salient Features: ? Complete coverage of the GTU syllabus ? Solutions of GTU examination questions within chapters ? Diverse pedagogy o Chapter outline, Points to remember etc. o Solved examples within chapters: 649 o Unsolved problems within chapters: 561

This textbook for the undergraduate vector calculus course presents a unified treatment of vector and geometric calculus. It is a sequel to the text Linear and Geometric Algebra by the same author. That text is a prerequisite for this one. Linear algebra and vector calculus have provided the basic vocabulary of mathematics in dimensions greater than one for the past one hundred years. Just as geometric algebra generalizes linear algebra in powerful ways, geometric calculus generalizes vector calculus in powerful ways. Traditional vector calculus topics are covered, as they must

be, since readers will encounter them in other texts and out in the world. Differential geometry is used today in many disciplines. A final chapter is devoted to it. Visit the book's web site: http: //faculty.luther.edu/ macdonal/vagc to download the table of contents, preface, and index. This is a third printing, corrected and slightly revised. From a review of Linear and Geometric Algebra Alan Macdonald's text is an excellent resource if you are just beginning the study of geometric algebra and would like to learn or review traditional linear algebra in the process. The clarity and evenness of the writing, as well as the originality of presentation that is evident throughout this text, suggest that the author has been successful as a mathematics teacher in the undergraduate classroom. This carefully crafted text is ideal for anyone learning geometric algebra in relative isolation, which I suspect will be the case for many readers. -- Jeffrey Dunham, William R. Kenan Jr. Professor of Natural Sciences, Middlebury College

The book includes high-quality research papers presented at the International Conference on Innovative Computing and Communication (ICICC 2018), which was held at the Guru Nanak Institute of Management (GNIM), Delhi, India on 5–6 May 2018. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.

Learn the hand-crafted notes on C programming Key Features Strengthens the foundations, as a detailed explanation of programming language concepts are given Lucid explanation of the concept Well thought-out, fully working programming examples End-of-chapter exercises that would help you practice the skills learned in the chapter

Hand-crafted "KanNotes" at the end of the each chapter that would help the reader remember and revise the concepts covered in the chapter Focuses on how to think logically to solve a problem Description The new edition of this classic book has been thoroughly revamped, but remains faithful to the principles that have established it as a favourite amongst students, teachers and software professionals round the world. "Simplicity"- that has been the hallmark of this book in not only its previous sixteen English editions, but also in the Hindi, Gujrati, Japanese, Korean, Chinese and US editions. This book doesn't assume any programming background. It begins with the basics and steadily builds the pace so that the reader finds it easy to handle advanced topics towards the end of the book. What will you learn C Instructions Decision Control Instruction, Loop Control Instruction, Case Control Instruction Functions, Pointers, Recursion Data Types, The C Preprocessor Arrays, Strings Structures, Console Input/Output, File Input/Output Who this book is for Students, Programmers, researchers, and software developers who wish to learn the basics of C++ programming language.Table of Contents 1. Getting Started 2. C Instructions 3. Decision Control Instruction 4. More Complex Decision Making 5. Loop Control Instruction 6. More Complex Repetitions 7. Case Control Instruction 8. Functions 9. Pointers 10. Recursion 11. Data Types Revisited 12. The C Preprocessor 13. Arrays 14. Multidimensional Arrays 15. Strings 16. Handling Multiple Strings 17. Structures 18. Console Input/Output 19. File Input/Output 20. More Issues In Input/Output 21. Operations On Bits 22. Miscellaneous Features 23. Interview FAQs Appendix A- Compilation and Execution Appendix B- Precedence Table Appendix C- Chasing the Bugs Appendix D- ASCII Chart Periodic Tests I to IV, Course Tests I, II Index About the Authors Through his books and Quest Video Courses on C, C++, Java, Python, Data Structures, .NET,

IoT, etc. Yashavant Kanetkar has created, molded and groomed lacs of IT careers in the last three decades. Yashavant's books and Quest videos have made a significant contribution in creating top-notch IT manpower in India and abroad. Yashavant's books are globally recognized and millions of students/professionals have benefitted from them. Yashavant's books have been translated into Hindi, Gujarati, Japanese, Korean and Chinese languages. Many of his books are published in India, USA, Japan, Singapore, Korea and China. Yashavant is a much sought after speaker in the IT field and has conducted seminars/workshops at TedEx, IITs, IIITs, NITs and global software companies. Yashavant has been honored with the prestigious "Distinguished Alumnus Award" by IIT Kanpur for his entrepreneurial, professional and academic excellence. This award was given to top 50 alumni of IIT Kanpur who have made a significant contribution towards their profession and betterment of society in the last 50 years. His Linkedin profile: linkedin.com/in/yashavant-kanetkar-9775255
S. Chand's Physics, designed to serve as a textbook for students pursuing their engineering degree course, B.E. in Gujarat Technical University. The book is written with the singular objective of providing the students of GTU with a distinct source material as per the syllabus. The philosophy of presentation of the material in the book is based upon decades of classroom interaction of the authors. In each chapter, the fundamental concepts pertinent to the topic are highlighted and the in-between continuity is emphasized. Throughout the book attention is given to the proper presentation of concepts and practical applications are cited to highlight the engineering aspects. A number of problems are solved. New problems are included in order to expedite the learning process of students of all hues and to improve their academic performance. The fundamental concepts are

emphasized in each chapter and the details are developed in an easy-to-follow style. Each chapter is divided into smaller parts and sub-headings are provided to make the reading a pleasant journey from one interesting topic to another important topic.

Each topic has been explained from the examination point of view, wherein the theory is presented in an easy-to-understand student-friendly style. Full coverage of concepts is supported by numerous solved examples with varied complexity levels, which is aligned to the latest GTU syllabus. Fundamental and sequential explanation of topics are well aided by examples and exercises. The solu¬tions of examples are set follow¬ing a 'tutorial' approach, which will make it easy for students from any background to easily grasp the concepts. Exercises with answers immediately follow the solved examples enforcing a practice-based approach. We hope that the students will gain logical understanding from solved problems and then reiterate it through solving simi¬lar exercise problems themselves. The unique blend of theory and application caters to the requirements of both the students and the faculty. Solutions of GTU examination questions are incorporated within the text appropriately. Highlights * Crisp content strictly as per the latest GTU syllabus of Advanced Engineering Mathematics (Regulation 2014) * Comprehensive coverage with lucid presentation style * Each section concludes with an exercise to test understanding of topics * Solutions of GTU examination papers from 2012 to 2014 present appropriately within the chapters * Solution to Summer 2015 GTU question paper placed at the end of the book * Rich exam-oriented pedagogy: -Examples within chapters: 636 -Unsolved Exercises: 571

This book has been designed as per the Mathematics-1 course offered in the first year to the undergraduate

engineering students of Gujarat Technical University. It provides crisp but complete explanation of topics which helps in easy understanding of the basic concepts. The systematic approach followed in the book enables readers to develop a logical perspective for solving problems. The book also contains the list of basic formulas and the solutions on 2018 university asked questions. Highlights: 1. Crisp content designed strictly as per the latest GTU syllabus 2. Comprehensive coverage with lucid presentation style 3. Solutions of previous GTU examination questions 4. Diverse pedagogy includes Chapter outline, Points to remember etc. ; 850+ Solved examples and 500+ Unsolved problems for practicing

The complexity of AC motor control lies in the multivariable and nonlinear nature of AC machine dynamics. Recent advancements in control theory now make it possible to deal with long-standing problems in AC motors control. This text expertly draws on these developments to apply a wide range of model-based control designmethods to a variety of AC motors. Contributions from over thirty top researchers explain how modern control design methods can be used to achieve tight speed regulation, optimal energetic efficiency, and operation reliability and safety, by considering online state variable estimation in the absence of mechanical sensors, power factor correction, machine flux optimization, fault detection and isolation, and fault tolerant control. Describing the complete control approach, both controller and observer designs are demonstrated using advanced nonlinear methods, stability and performance are analysed using powerful techniques, including implementation considerations using digital computing means. Other key features: • Covers the main types of AC motors including triphase, multiphase, and doubly fed induction motors, wound rotor, permanent magnet, and interior PM synchronous motors • Illustrates the

usefulness of the advanced control methods via industrial applications including electric vehicles, high speed trains, steel mills, and more • Includes special focus on sensorless nonlinear observers, adaptive and robust nonlinear controllers, output-feedback controllers, fault detection and isolation algorithms, and fault tolerant controllers This comprehensive volume provides researchers and designers and R&D engineers with a single-source reference on AC motor system drives in the automotive and transportation industry. It will also appeal to advanced students in automatic control, electrical, power systems, mechanical engineering and robotics, as well as mechatronic, process, and applied control system engineers.

The text has been divided in two volumes: Volume I (Ch. 1-13) & Volume II (Ch. 14-22). In addition to the review material and some basic topics as discussed in the opening chapter, the main text in Volume I covers topics on infinite series, differential and integral calculus, matrices, vector calculus, ordinary differential equations, special functions and Laplace transforms. Volume II covers topics on complex analysis, Fourier analysis, partial differential equations and statistics. The present book has numerous distinguishing features over the already existing books on the same topic. The chapters have been planned to create interest among the readers to study and apply the mathematical tools. The subject has been presented in a very lucid and precise manner with a wide variety of examples and exercises, which would eventually help the reader for hassle free study.

Building Materials and Construction covers the detailed discussion on materials required for building construction along with construction methodology and will be useful for students and teachers as well as for architects and practicing civil engineers. The book will cater to their needs at every stage, i.e., from initial planning to selection of construction materials, construction practices, and even the post-construction stage. Apart from covering the traditional materials and construction details, the book also contains many latest and contemporary topics including newer and advanced materials such as composites, geosynthetics, recycled aggregate, paper as building material, bacterial concrete, nano concrete, geopolymer concrete and more. Salient Features : - Covers both building materials and construction practices in one volume. - Extensive coverage of traditional and modern building materials and construction practices. - Excellent pedagogy: • Figures: 227 • Tables: 117 • Review Questions: 449 • Multiple-Choice Questions: 250. This hallmark text on Power System Engineering provides the readers a comprehensive account of all key concepts in the field. The book includes latest technology developments and talks about some crucial areas of Power system, such as Transmission & Distribution, Analysis & Stability, and Protection & Switchgear. With its rich content, it caters to the requirements of students, instructors,

and professionals.

This book has been designed specially as per the syllabus requirements of University of Mumbai. It caters to the needs of third semester students of Electronics & Telecommunication Engineering as well as Electronics Engineering. Following a problem solving approach and discussing both analysis and synthesis of networks, this textbook offers good coverage of AC and DC circuits, network theorems, two-port networks, and network synthesis. Salient Features: - Up-to-date and full coverage of the latest syllabus - Extensively supported by illustrations and numerical problems - Examination-oriented pedagogy: * llustrations: 1500+ * Solved Examples within chapters: 539 * Unsolved Problems: 195 * Objective Type Questions: 130

Mathematics-IMcGraw-Hill Education

The book is designed to help the first year engineering students in building their concepts in the course on Programming for Problem Solving. It introduces the subject in a simple and lucid manner for a better understanding. It adopts a student friendly approach to the subject matter with many solved examples and unsolved questions, illustrations and well-structured C programs.

This book on Mathematics -I deals with fundamentals of subject area. Each topic in the book is explained from the examination point of view, wherein the theory is presented in an easy-

tounderstand studentfriendly style. The solutions of examples are set following a 'tutorial' approach, which will make it easy for students from any background to easily grasp the concepts. Salient Features: - Complete coverage of course on Engineering Graphics - Complete coverage of course on Mathematics I - Each section concludes with an exercise to test the understanding of topics - Rich pool of pedagogy - Hints to exercise problems For Engineering students & also useful for competitive Examination.

Confusing Textbooks? Missed Lectures? Not Enough Time? Fortunately for you, there's Schaum's Outlines. More than 40 million students have trusted Schaum's to help them succeed in the classroom and on exams. Schaum's is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills. This Schaum's Outline gives you Practice problems with full explanations that reinforce knowledge Coverage of the most up-to-date developments in your course field In-depth review of practices and applications Fully compatible with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time-and get your best test scores! Schaum's Outlines-Problem Solved.

Arise, Awake is the story of young entrepreneurs who started a business while studying in college, or right after graduation. turning their backs on lucrative placements, to pursue dreams of their own. The ability to start a business is not defined by age or education. It takes energy and passion, an idea and

an internet connection. Your first 'office' could be your very own hostel room.

Engineering Mathematics by Ravish Singh aims to make the subject more approachable to students. The crisp explanation of concepts and the step-by-step solutions to problems helps the users in easy understanding of the concepts. The author has taken due care to maintain an optimum depth in covering all the topics, which fulfills requirements of both student and faculty.

The latest edition of the bestselling Groundwater Chemicals Desk Reference has been thoroughly updated and expanded. In addition to information concerning the environmental fate and transport in various media, organic priority pollutants and chemicals commonly found in the workplace and the environment, it includes toxicity information for mammals and aquatic species in a clear, consistent format.

Based on the authors' combined 35 years of experience in teaching, A Basic Course in Real Analysis introduces students to the aspects of real analysis in a friendly way. The authors offer insights into the way a typical mathematician works observing patterns, conducting experiments by means of looking at or creating examples, trying to understand the underlying principles, and coming up with guesses or conjectures and then proving them rigorously based on his or her explorations. With more than 100 pictures, the book creates interest in real analysis by encouraging students to think geometrically. Each difficult proof is prefaced by a strategy and explanation of how the strategy is translated into rigorous and precise proofs. The authors then explain the mystery and role of inequalities in analysis to train students to arrive at estimates that will be useful for proofs. They highlight the role of the least upper bound property of real numbers, which underlies all crucial results in real analysis. In addition, the book demonstrates analysis as a qualitative as well as

quantitative study of functions, exposing students to arguments that fall under hard analysis. Although there are many books available on this subject, students often find it difficult to learn the essence of analysis on their own or after going through a course on real analysis. Written in a conversational tone, this book explains the hows and whys of real analysis and provides guidance that makes readers think at every stage.

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