

Book Kanti Swaroop Gupta P K Man Mohan Operations Research

Polymer Nanocomposites Containing Graphene: Preparation, Properties and Applications provides detailed up-to-date information on the characterization, synthesis, processing, properties and application of these materials. Key topics that are covered in the book include: the methods of synthesis and preparation of graphene as well as different processes and methods of functionalization and modification of graphene for improving composite properties. The preparation techniques focus on which method is advantageous for getting improvements in properties along with their drawbacks. The structure and property relationships are also discussed in detail. The issues related to graphene dispersion in polymer matrices is also addressed as well as the use of graphene as reinforcement in thermoset resins. The different properties of the composites like mechanical, electrical, dielectric, thermal, rheological, morphology, spectroscopy, electronic, optical, and toxicity are reviewed from the geometrical and functional point of view. Applications cover electrical and electronic fields, flame and fire retardancy, structural, sensing and catalysis, membrane, in fuel cell and solar energy, hydrogen production, aerospace engineering, packaging, and biomedical/bioengineering fields. Up-to-date patents on graphene-polymer nanocomposites are also covered. Those working in graphene-based materials will benefit from the detailed knowledge presented in this book on graphene synthesis, composite preparation methods, and the related problems associated with them. The book will enable researchers to select the appropriate composite as per their respective field of application. Presents novel approaches for the preparation of graphene, its modification and nanocomposites with enhanced properties for state-of-the-art applications. Special attention is given to how graphene is synthesized through different routes, their functionality, dispersion related matters and structural aspects controlling the composite properties for various applications. All synthesis methodology and functionalization procedure for graphene is discussed. Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. The subject-matter in the entire book has been re-written in the light of numerous criticisms and suggestions received from the users of the earlier editions in India and abroad. The basis of this revision has been the emergence of new literature on the subject, the constructive feedback from students and teaching fraternity, as well as those changes that have been made in the syllabi and/or the pattern of examination papers of numerous universities. Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. 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Accordingly, a large number of comprehensive solved examples, taken from a variety of fields, have been added in every chapter and they are followed by a set of unsolved problems with answers (and hints wherever required) through which readers can test their understanding of the subject matter. The book, in its present form, contains around 650, examples, 1,280 illustrative diagrams.

This text, now in the Third Edition, aims to provide students with a clear, well-structured and comprehensive treatment of the theory and applications of operations research. The methodology used is to first introduce the students to the fundamental concepts through numerical illustrations and then explain the underlying theory, wherever required. Inclusion of case studies in the existing chapters makes learning easier and more effective. The book introduces the readers to various models of Operations Research (OR), such as transportation model, assignment model, inventory models, queueing theory and integer programming models. Various techniques to solve OR problems' faced by managers are also discussed. Separate chapters are devoted to Linear Programming, Dynamic Programming and Quadratic Programming which greatly help in the decision-making process. The text facilitates easy comprehension of topics by the students due to inclusion of: • Examples and situations from the Indian context. • Numerous exercise problems arranged in a graded manner. • A large number of illustrative examples. The text is primarily intended for the postgraduate students of management, computer applications, commerce, mathematics and statistics. Besides, the undergraduate students of mechanical engineering and industrial engineering will find this book extremely useful. In addition, this text can also be used as a reference by OR analysts and operations managers. **NEW TO THE THIRD EDITION** • Includes two new chapters: – Chapter 14: Project Management—PERT and CPM – Chapter 15: Miscellaneous Topics (Game Theory, Sequencing and Scheduling, Simulation, and Replacement Models) • Incorporates more examples in the existing chapters to illustrate new models, algorithms and concepts • Provides short questions and additional numerical problems for practice in each chapter

This well-acclaimed book, now in its twentieth edition, continues to offer an in-depth presentation of the fundamental concepts and their applications of ordinary and partial differential equations providing systematic solution techniques. The book provides step-by-step proofs of theorems to enhance students' problem-solving skill and includes plenty of carefully chosen solved examples to

illustrate the concepts discussed.

Over the years Advanced Accountancy has emerged as the definitive and comprehensive textbook on accountancy as it completely meets the requirements of students preparing for BCom, MCom, MBA, BBA and professional examinations conducted by different institutions, such as the Institute of Chartered Accountants of India, the Indian Institute of Bankers, the Institute of Company Secretaries of India, and the Institute of Cost Accountants of India. New in this Edition • Basic features of the 32 Accounting Standards of India issued by the Institute of Chartered Accountants of India and 40 Indian Accounting Standards (Ind AS) notified by the Ministry of Corporate Affairs. • Updation and convergence of Indian accounting standards with international financial reporting standards. • Strengthening and updating of the text material in the light of new accounting standards. • Latest questions and problems from examinations conducted by different professional bodies and universities.

As technology continues to become more sophisticated, mimicking natural processes and phenomena becomes more of a reality. Continued research in the field of natural computing enables an understanding of the world around us, in addition to opportunities for manmade computing to mirror the natural processes and systems that have existed for centuries. Nature-Inspired Algorithms for Big Data Frameworks is a collection of innovative research on the methods and applications of extracting meaningful information from data using algorithms that are capable of handling the constraints of processing time, memory usage, and the dynamic and unstructured nature of data. Highlighting a range of topics including genetic algorithms, data classification, and wireless sensor networks, this book is ideally designed for computer engineers, software developers, IT professionals, academicians, researchers, and upper-level students seeking current research on the application of nature and biologically inspired algorithms for handling challenges posed by big data in diverse environments.

This Book Is An Introductory Text Written With Minimal Prerequisites. The Plan Is To Impose A Distance Structure On A Linear Space, Exploit It Fully And Then Introduce Additional Features Only When One Cannot Get Any Further Without Them. The Book Naturally Falls Into Two Parts And Each Of Them Is Developed Independently Of The Other The First Part Deals With Normed Spaces, Their Completeness And Continuous Linear Maps On Them, Including The Theory Of Compact Operators. The Much Shorter Second Part Treats Hilbert Spaces And Leads Upto The Spectral Theorem For Compact Self-Adjoint Operators. Four Appendices Point Out Areas Of Further Development. Emphasis Is On Giving A Number Of Examples To Illustrate Abstract Concepts And On Citing Various Applications Of Results Proved In The Text. In Addition To Proving Existence And Uniqueness Of A Solution, Its Approximate Construction Is Indicated. Problems Of Varying Degrees Of Difficulty Are Given At The End Of Each Section. Their Statements Contain The Answers As Well.

1. Cell Theory and The Cell 2. Techniques for Cell Study 3. Chemistry of the Cell 4. Chemistry of the Cell 5. Enzymes and Energy Transfers during Metabolism 6. Cell Wall and Extracellular Matrix (ECM) 7. Cyto'skeleton: Microtubules, Actin Filaments and Intermediate Filaments 8. Cell Membrane (Including Plasma Membrane) 9. Cell Organelles 10. Cell Organelles 11. Cell Organelles 12. The Cell Nucleus 13. Energy Conversions Photosynthesis and Respiration 14. Membrane Function 15. Membrane Function 16. Membrane Function 17. Cell Division (Mitosis and Meiosis) 18. The Cell Division Cycle Molecular Basis 19. Germ Cells, Fertilization, Parthenogenesis and Apomixis 20. Basic Concepts in Genetics 21. Maternal Effects and Cytoplasmic Inheritance 22. Linkage and Crossing Over in Diploid Organisms 23. Tetrad Analysis, Mitotic Recombination and Gene Conversion in Haploid Organisms (Fungi and Single Celled Algae) 24. Sexuality and Recombination in Bacteria and Viruses 25. Molecular Mechanism of Genetic Recombination 26. Recombination and Resolution of Gene Structure 27. Plasmids, IS Elements, Transposons and Retroelements 28. Structural Changes In Chromosomes 29. Numerical Changes In Chromosomes 30. Mutations 31. Mutations 32. Chemistry of the Gene: Synthesis, Modification and Repair of DNA 33. Organisation of Genetic Material 34. Organization of Genetic Material 35. Organization of Genetic Material 36. The Genetic Code 37. Transfer RNA and Aminoacyl-tRNA Synthetases 38. Expression of Gene: Protein Synthesis 39. Expression of Gene: Protein Synthesis 40. Expression of Gene: Protein Synthesis 41. Regulation of Gene Expression 42. Regulation of Gene Expression 43. Regulation of Gene Expression 44. Genetic Engineering and Biotechnology 45. Genetic Engineering and Biotechnology 46. Genetic Engineering and Biotechnology 47. Genetic Engineering and Biotechnology 48. Genetic Engineering and Biotechnology 49. Multigene Families in Eukaryotes 50. Specification of Cell Fate and Cell Commitment 51. Developmental Genetics 52. Immune System and Vaccines 53. Genetics of Cancer: Proto-Oncogenes, Oncogenes and Tumour Suppressor Genes 54. Cell Death: Apoptosis 55. Pluripotent Stem Cells and Animal Cloning (Including Human Cloning) References Author Index Subject Index

This book contains a selection of the latest research in the field of Computational Social Science (CSS) methods, uses, and results, as presented at the 2018 annual conference of the CSSSA. This conference was held in Santa Fe, New Mexico, October 25 – 28, 2018, at the Drury Plaza Hotel. CSS investigates social and behavioral dynamics in both nature and society, through computer simulation, network analysis, and the science of complex systems. The Computational Social Science Society of the Americas (CSSSA) is a professional society that aims to advance the field of CSS in all its areas, from fundamental principles to real-world applications, by holding conferences and workshops, promoting standards of scientific excellence in research and teaching, and publishing novel research findings. What follows is a diverse representation of new approaches and research findings, using the tools of CSS and Agent-Based Modeling (ABM) in exploring complex phenomena across many different domains. Readers will not only have the methods and results of these specific projects on which to build, but will also gain a greater appreciation for the broad scope of CSS, and have a wealth of case-study examples that can serve as meaningful exemplars for new research projects and activities. This book, we hope, will appeal to any researchers and students working in the social sciences, broadly defined, who aim to better understand and apply the concepts of Complex Adaptive Systems to their work.

This text combines the market leading writing and presentation skills of Bill Stevenson with integrated, thorough, Excel modeling from Ceyhun Ozgur. Professor Ozgur teaches Management Science, Operations, and Statistics using Excel, at the undergrad and MBA levels at Valparaiso University --and Ozgur developed and tested all examples, problems and cases with his students. The authors have written this text for students who have no significant mathematics training and only the most elementary experience with Excel.

Mathematical Aspects of Scheduling and Applications addresses the perennial problem of optimal utilization of finite resources in the accomplishment of an assortment of tasks or objectives. The book provides ways to uncover the core of these problems, presents them in mathematical terms, and devises mathematical solutions for them. The book consists

of 12 chapters. Chapter 1 deals with network problems, the shortest path problem, and applications to control theory. Chapter 2 stresses the role and use of computers based on the decision-making problems outlined in the preceding chapter. Chapter 3 classifies scheduling problems and their solution approaches. Chapters 4 to 6 discuss machine sequencing problems and techniques. Chapter 5 tackles capacity expansion problems and introduces the technique of embedded state space dynamic programming for reducing dimensionality so that larger problems can be solved. Chapter 6 then examines an important class of network problems with non-serial phase structures and exploits dimensionality reduction techniques, such as the pseudo-stage concept, branch compression, and optimal order elimination methods to solve large-scale, nonlinear network scheduling problems. Chapters 7 to 11 consider the flow-shop scheduling problem under different objectives and constraints. Chapter 12 discusses the job-shop-scheduling problem. The book will be useful to economists, planners, and graduate students in the fields of mathematics, operations research, management science, computer science, and engineering.

Operations Research is the discipline of applying advanced analytical methods to help make better decisions. It helps the management to achieve its goals by using scientific techniques, making the study and understanding of operations research even more important in the present day scenario. This book has been written with the objective of providing students with a comprehensive textbook on the subject. It follows a simple algorithmic approach to explain each concept, often giving different steps. This approach stems from the author's experience in teaching undergraduate and postgraduate students of Madras University and Anna University, Chennai, over many years. One of the highlights of this book is the solved-problems approach, as each chapter in the book is substantiated by a large number of solved problems. Many of the questions that have been incorporated are from previous examination papers of various universities. In addition, each chapter has numerous exercise problems at the end and a section on short questions with answers.

This book is an attempt to make presentation of Elements of Real Analysis more lucid. The book contains examples and exercises meant to help a proper understanding of the text. For B.A., B.Sc. and Honours (Mathematics and Physics), M.A. and M.Sc. (Mathematics) students of various Universities/ Institutions. As per UGC Model Curriculum and for I.A.S. and Various other competitive exams.

The second edition of this well-organized and comprehensive text continues to provide an in-depth coverage of the theory and applications of operations research. It emphasizes the role of operations research not only as an effective decision-making tool, but also as an essential productivity improvement tool to deal with real-world management problems. This New Edition includes new carefully designed numerical examples that help in understanding complex mathematical concepts better. The book is an easy read, explaining the basics of operations research and discussing various optimization techniques such as linear and non-linear programming, dynamic programming, goal programming, parametric programming, integer programming, transportation and assignment problems, inventory control, and network techniques. It also gives a comprehensive account of game theory, queueing theory, project management, replacement and maintenance analysis, and production scheduling. NEW TO THIS EDITION Inclusion of quantity discount models for transportation problem. Updated inventory control model and detailed discussion on application of dynamic programming in the fields of cargo loading and single-machine scheduling. Numerous new examples that explain the operations research concepts better. New questions with complete solutions to selected problems. This book, with its many student friendly features, would be eminently suitable as a text for students of engineering (mechanical, production and industrial engineering), management, mathematics, statistics, and postgraduate students of commerce and computer applications (MCA).

This textbook, now in its Second Edition, addresses the rapid advancements to the area of mobile computing. Almost every chapter has been revised to make the book up to date with the latest developments. It covers the main topics associated with mobile computing and wireless networking at a level that enables the students to develop a fundamental understanding of the technical issues involved in this new and fast emerging discipline. This book first examines the basics of wireless technologies and computer communications that form the essential infrastructure required for building knowledge in the area of mobile computations involving the study of invocation mechanisms at the client end, the underlying wireless communication, and the corresponding server-side technologies. It includes coverage of development of mobile cellular systems, protocol design for mobile networks, special issues involved in the mobility management of cellular system users, realization and applications of mobile ad hoc networks (MANETs), design and operation of sensor networks, special constraints and requirements of mobile operating systems, and development of mobile computing applications. Finally, an example application of the mobile computing infrastructure to M-commerce is described in the concluding chapter of the book. The book is suitable for a one-semester course in mobile computing for the undergraduate students of Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Master of Computer Applications (MCA), and the undergraduate and postgraduate science courses in computer science and Information Technology. Key Features • Provides unified coverage of mobile computing and communication aspects • Discusses the mobile application development, mobile operating systems and mobile databases as part of the material devoted to mobile computing • Incorporates a survey of mobile operating systems and the latest developments

Sri Daya Mata shares the guidance and inspiration she received as a close disciple of Paramahansa Yogananda. A compassionate and deeply encouraging book that speaks to all who long to know that God is real, that He is near to us at all times, and that we can live every day in communion with Him.

AntiPatterns: Identification, Refactoring, and Management catalogs 48 bad management practices and environments common to software development, IT, and other organizations. The authors cover antipatterns of management, along with environmental/cultural antipatterns and personality antipatterns/phenotypes. Through the classification of these

Issues for 1919-47 include Who's who in India; 1948, Who's who in India and Pakistan.

The Book Provides Quantitative Tools To Tackle Real-Life Problems Of The Corporate World. It Has Been Designed To Prepare Mba Students To Take A Straight Plunge Into The Streams Of Mathematics, Statistics And Operations Research For Business Purposes. It A self-contained introduction to linear programming using MATLAB® software to elucidate the development of algorithms and theory. Exercises are included in each chapter, and additional information is provided in two appendices and an accompanying

Web site. Only a basic knowledge of linear algebra and calculus is required.

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