OXFORD
UNIVERSITY PRESS

COMPUTER SCIENCE ENGINEERING

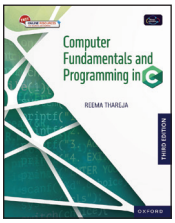
www.india.oup.com | hemarketing.in@oup.com

CONTENTS

NEW RELEASES ---- 2
EMERGING AREAS ---- 4
FUNDAMENTALS OF COMPUTERS AND PROGRAMMING LANGUAGES ---- 7
OPERATING SYSTEMS ---- 12
COMPILER DESIGN/THEORY OF COMPUTATION ---- 13
DISCRETE MATHEMATICS/ALGORITHMS ---- 14
SOFTWARE ENGINEERING/SOFTWARE TESTING ---- 15
WEB TECHNOLOGIES/MICROPROCESSORS AND MICROCONTROLLERS ---- 16
SOFT COMPUTING/NLP/IMAGE PROCESSING ---- 18
DATA COMMUNICATION AND NETWORKS ---- 20
CLOUD COMPUTING/CYBER FORENSICS ---- 22
PLACEMENT ---- 23
PRICELIST ---- 24

NEW RELEASES

Computer Fundamentals and Programming in C, 3E



9789354977893
₹ 765.00
Pages
June 2023
Paperback
Indian Original
Author: ***Reema Thareja***

New to the Third Edition

- A section on Type-C (Or USB-C Port) and comparison between RAM and ROM)
- Wireless input devices like speaker, printer, 3D printer
- Wireless input devices like speaker, printer, 3D printer
- Lab Activities on working with Google drive to store data on cloud
- Updates on MS Office 2019 and Windows 11
- Types of computer software and customized software
- Generic software development vs specific-purpose software
- Latest updates in versions of C
- A new Appendix on emerging technologies in the fi eld of computer science such as Artificial Intelligence, Blockchain Technology, Metaverse, etc.

ONLINE RESOURCES

For Instructors: Solution Manual, PowerPoint, Presentation Projects

For Students: Additional Reading - Versions of C, Additional Reading - Algorithm Efficiency, Introduction to Emerging Technologies

Content: PART I: COMPUTER FUNDAMENTALS, 1: Introduction to Computers, 2: Input and Output Devices, 3: Computer Memory and Processors, 4: Number Systems and Computer Codes, 5: Boolean Algebra and Logic Gates, 6: Computer Software, 7: Computer Networks and the Internet, 8: Designing Efficient Programs; PART II: PROGRAMMING IN C, 9: Introduction to C, 10: Decision Control and Looping Statements, 11: Functions, 12: Arrays, 13: Strings, 14: Pointers, 15: Structure, Union, and Enumerated Data Type, 16: Files, 17: Preprocessor Directives, 18: Introduction to Data Structures; Appendices

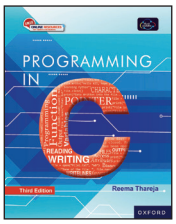
Praise for the Previous Edition

"Objective questions are very useful for GATE/NET and other competitive exams." Naresh E, MSRIT, Bangalore "The fact that I found this book in the library of Stanford University in itself is a big compliment. I am teaching from this book and my students find it an excellent book to follow." Arijit Das, Naval Postgraduate School, California, USA

About the Authors:

Reema Thareja, *Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Programming in C, 3E



9789354979453
₹ 750.00
Pages
Oct 2023
Paperback
Indian Original
Author: ***Reema Thareja***

Features

Chapter 1 completely rewritten to discuss the various strategies used for problem solving

An annexure on code optimization techniques and case studies

Practical implementation of the algorithms using tested C programs

Content: 1. Problem Solving and Programming, 2. Introduction to C, 3. Decision Control and Looping Statements, 4. Functions, 5. Arrays, 6. Strings, 7. Pointers, 8. Structure, Union, and Enumerated Data Types, 9. Files, 10. Preprocessor Directives, 11. Linked Lists, 12. Stacks and Queues, 13. Trees, 14. Graphs

ONLINE RESOURCES

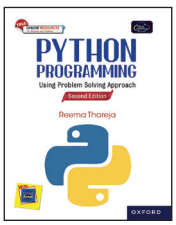
For Instructors: Solution Manual, PowerPoint Presentation, Projects

For Students: MCQs, Codes of Programming Examples, Model Question Papers, Supplementary Reading: Graphics/Mouse Programming

About the Authors:

Reema Thareja, *Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi*

Python Programming Using Problem Solving Approach, 2e



9789354973765
₹ 625.00
Pages
Jan 2023
Paperback
Indian Original
Author: ***Reema Thareja***

New to the Second Edition

- New appendices on Python IDEs, Sorting, Network Programming, MongoDB under NoSQL, Visual Programming through Scratch, Event Driven Programming)
- Separate appendices on NumPy and Pandas, and Raptor Tool
- Comes with author videos discussing some of the important topics
- Additional Programming Examples for learning and practice

- Case studies on creating calculator, calendar, hash files, compressing strings and files, tower of Hanoi, image processing, etc.

Content: 1: Introduction to Computers and Problem Solving Strategies, 2: Introduction to Object Oriented Programming (OOP), 3: Basics of Python Programming, 4: Decision Control Statements, Case Study 1 - Simple Calculator, Case Study 2 - Generating a Calendar, 5: Functions and Modules, Case Study 3 - Tower of Hanoi,

Case Study 4 - Shuffling a Deck of Cards, 6: Python Strings Revisited, 7: File Handling, Case Study 5 - Creating a Hash File (or a message digest of a file), Case Study 6 - Mail Merge Program, Case Study 7 - Finding Resolution of an Image, 8: Data Structures, 9: Classes and Objects, 10: Inheritance, 11: Operator Overloading, 12: Errors and Exception Handling

Case Study - Compressing Strings and Files

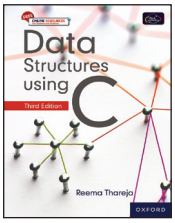
ONLINE RESOURCES

For Instructors: Solution Manual, PowerPoint Presentation, Projects
For Students: Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi

About the Authors:

Reema Thareja, *Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi*

Data Structures Using C, 3E



9789354977190

₹ 725.00

Pages

August 2023

Paperback

Indian Original

Author: ***Reema Thareja***

New to the Third Edition

- Sections on best practices to be followed while writing a C program, need and selection of a data structure
- Updated chapters to demonstrate real-world applications of data structures
- Appendices on code optimization techniques and case studies
- Practical implementation of the algorithms using tested C programs
- Objective type questions to enhance the analytical ability of the students

ONLINE RESOURCES

For Instructors: Solution Manual, PowerPoint Presentation Projects

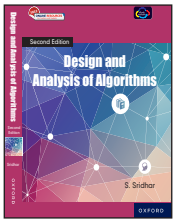
For Students: Chapter-wise Programming exercises, Additional C Programmes, Interview and Quiz questions

Content: 1: Introduction to C, 2: Introduction to Data Structures and Algorithms, 3: Arrays, 4: Strings, 5: Structures and Unions, 6: Linked Lists, 7: Stacks, 8: Queues, 9: Trees, 10: Efficient Binary Trees, 11: Multi-way Search Trees, 12: Heaps, 13: Graphs, 14: Searching and Sorting, 15: Hashing and Collision, 16: Files and Their Organization, Appendx A: Memory Allocation in C Programs, Appendix B: Garbage Collection, Appendix C: Backtracking, Appendix D: File Handling in C, Appendix E: Address Calculation Sort, Appendix F: Program Optimization Techniques, Appendix G: Answers

About the Authors:

Reema Thareja, *Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi*

Design and Analysis of Algorithms, 2e



9789354977886

₹ 1030.00

Pages

Dec 2023

Paperback

Indian Original

Author: ***S. Sridhar***

Features

In-depth treatment for topics such as Divide and conquer, greedy approach, dynamic programming, transform-and-conquer technique, decrease-and-conquer technique, linear programming, and randomized and approximation algorithms

- Extensive discussion on computational skills, algorithm writing and analysis of iterative and recursive algorithms
- Extensive discussion on the developing and designing aspects of algorithms using minimal mathematics
- Many numerous examples to assist understanding of the concepts
- Judicious presentation of algorithms using a step-wise approach throughout the text
- Historical notes on various topics and chapter-end crossword puzzles provided to engage readers and enhance their interest in the subject

Content: 1. Introduction to Algorithms, 2. Basics of Algorithm Writing, 3. Basics of Algorithm Analysis, 4. Mathematical Analysis of Recursive Algorithms, 5. Data Structures—I, 6. Data Structures—II, 7. Brute Force Approaches, 8. Divide-and-conquer Approach, 9. Decrease-and-conquer Approach, 10. Time–Space Tradeoffs, 11. Greedy Algorithms, 12. Transform-and-conquer Approach, 13. Dynamic Programming, 14. Backtracking, 15. Branch-and-bound Technique, 16. String Algorithms, 17. Iterative Improvement and Linear Programming, 18. Basics of Computational Complexity, 19. Randomized Algorithms, 20. Approximation Algorithms, 21. Parallel Algorithms

About the Authors:

S. Sridhar, *Professor, Department of Information Science and Technology, College of Engineering Guindy Campus, Anna University, Chennai.*

FORTHCOMING LIST

Emerging Technologies Series

Artificial Intelligence: Illustrated with Python

About the book

The book discusses current trends in AI and its application to various fields. Intelligent systems such as expert systems, fuzzy systems, artificial neural networks, genetic algorithms, and swarm intelligent systems are discussed in detail with examples to facilitate in-depth understanding of AI. The text emphasizes the solution of real-world problems using the latest AI techniques. Since the ultimate goal of AI is the construction of programs to solve problems, an entire chapter has been devoted to programming languages such as Python used in AI problem-solving. The book also contains an entire chapter dedicated to Machine Learning.

About the Authors:

Dr N. P. Padhy *Director, MNIT Jaipur,* ***Dr S P Simon*** *Professor, NIT Trichy,* ***Dr M Senthilkumar*** *Associate Professor, NIT Patna.*

Natural Language Processing

About the book

The proposed title offers extensive coverage of basics of Deep Learning and Machine Learning and goes on to discuss regular expressions, text processing and semantic inference in detail. Following this, chapters on feature extraction, word embedding, and text classification, Transformer Based Models and Text Summarization Techniques have been included. Real time case studies in NLP, ethical considerations of using AI in NLP and LLMs and Prompt Engineering form a part of the concluding chapters.

About the Authors:

Shriram Vasudevan, *Lead - Technical Evangelist with Intel Corporation,* ***Sini Kishan,*** *Teaching, Research, and e-learning specialist at Bahrain Polytechnic,* ***Umadevi Maramreddy,*** *Professor at the Dept. of CSE, Vignan's Foundation for Science, Technology and Research*

Blockchain Technology

About the book

The text is structured into 10 chapters, beginning with a discussion on the basics of Ethereum and progressing to detailed explorations of the ledger of things, economic inclusion, and entrepreneurship. Subsequent chapters cover topics such as GAS on payments, various cryptocurrencies, their models, and transaction techniques. Real-time case studies in Blockchain and ethical considerations of using AI in Blockchain form integral parts of the concluding chapters

About the Authors:

J. Indumathi *Professor; Department of Information Science and Technology, College of Engineering Guindy Campus, Anna University, Chennai*

Deep Learning

About the book

Additionally, it explores practical applications including deep learning methods like deep feedforward networks, regularization, optimization algorithms, convolutional networks, and sequence modeling. Moreover, it examines real-world applications like natural language processing, speech recognition, computer vision, recommendation systems, bioinformatics, and videogames. Lastly, the book offers insights into advanced research areas such as linear factor models, autoencoders, representation learning, structured probabilistic models, Monte Carlo methods, the partition function, approximate inference, and deep generative models.

About the Authors:

Dr Maganti Venkatesh, *ssociate Professor in AIML & HoD, Aditya University, AP,* ***Dr R. Suneetha,*** *Associate Professor, AIML, Aditya University, AP*

Data Structures and Algorithms

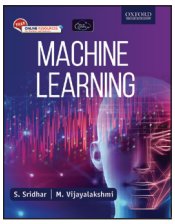
About the book

From an introduction to data structures and algorithms, including recursion and backtracking, to advanced topics such as dynamic programming and complexity classes, this book covers it all. Explore essential concepts like linked lists, stacks, queues, trees, priority queues, and heaps, along with practical implementations and applications. Delve into graph algorithms, sorting, searching, selection algorithms, symbol tables, hashing, and string algorithms, gaining insights into algorithm design techniques, greedy algorithms, divide and conquer strategies, and more. Whether you're a novice or a seasoned programmer, this book provides a solid foundation for understanding and implementing data structures and algorithms efficiently.

About the Authors:

Dr Reema Thareja, *Assistant Professor, School of Open Learning, University of Delhi*

Machine Learning



9780190127275
₹ 710.00
512 Pages
April 2021
Paperback
Indian Original
Authors: ***S. Sridhar & M. Vijayalakshmi***

This text provides a perfect balance between theoretical and mathematical exposition with several numerical examples, review questions, and Python programs.

Key Features:

- Adopts an 'Algorithmic Approach' to illustrate the concepts of machine learning in a simple language with 100+ numerical problems
- Adapts 'Minimal Mathematics Strategy' with more emphasis on understanding the basics of machine learning
- Has 'Comprehensive Coverage' of all topics that are relevant to machine learning with 100+ figures and Python codes
- Provides 'Simple Explanation' to topics such as clustering, support vector machines, genetic algorithms, artificial neural networks, ensemble learning, and deep learning
- Contains 'Appendices' that discuss the basics of Python and Python packages such as NumPy, Pandas, Scikit-learn, Matplotlib, SciPy, and Keras
- Includes a 'Laboratory Manual' with examples illustrated through Python and its packages
- Comes with 'Useful Pedagogical Features' such as Crossword and Word Search

ONLINE RESOURCES

For Faculty: Chapter PPTs, Solution Manual

For Students: Python Programs, Lab Manual, Crosswords and Word Search

Content: 1. Introduction to Machine Learning; 2. Understanding Data; 3. Basics of Learning Theory; 4. Similarity-based Learning; 5. Regression Analysis; 6. Decision Tree Learning; 7. Rule–based Learning; 8. Bayesian Learning; 9. Probabilistic Graphical Models; 10. Artificial Neural Networks; 11. Support Vector Machines; 12. Ensemble Learning; 13. Clustering Algorithms; 14. Reinforcement Learning; 15. Genetic Algorithms; 16. Deep Learning

About the Authors:

S. Sridhar, *Professor, Department of Information Science and Technology, College of Engineering Guindy Campus, Anna University, Chennai.*

M. Vijayalakshmi, *Associate Professor at the Department of Information Science and Technology, College of Engineering, Guindy Campus, Anna University, Chennai.*

Internet of Things

9780190121099
₹ 675.00
432 Pages
February 2021
Paperback
Indian Original
Authors: ***Durbha & Joglekar***

The book takes the reader through the foundations of the subject before moving onto discussing the essential components of an IoT system, including the sensor and actuators, open hardware, middleware, and software platforms with sound illustrations for better understanding. It also dedicates a complete module on IoT and its relevance to Big Data.

Key Features:

- Includes hands on (walk-through) section of the chapter putting forth an engaging and real-world example, and then goes on to demonstrate using state-of-the-art IoT streaming platform (Apache Flink) and Java code on how to perform edge analytics
- Illustrates end-to-end framework for edge analytics and each component
- Discusses IoT Business Process Management and Use Cases as exclusive chapters
- Includes thought and review exercises to prepare the reader to design a security model for a specific IoT application
- Provides review questions, practice exercises, multiple choice questions with answers

ONLINE RESOURCES

For Faculty: Solutions Manual, Chapter-wise PPTs, Project ideas with hints

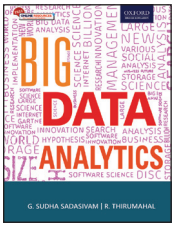
Content: 1. Emergence of Internet of Things; 2. Concept of Smart Things / Objects; 3. Wireless Sensor Networks in IoT; 4. IoT Standards and Protocols; 5. Sensors and Actuators in IoT; 6. Open Hardware in IoT; 7. IoT Middleware; 8. IoT Software Platforms; 9. Prototyping IoT Applications; 10. Big IoT Data Science; 11. IoT in the Cloud; 12. Edge Analytics: Near Real-time Time Sensor Stream Processing; 13. Embedded High Performance Computing (HPC); 14. Interoperability in the IoT Ecosystem; 15. Cyber Security and Privacy in Internet of Things; 16. IoT and Business Process Management; 17. IoT Use Cases; 18. Future Outlook

About the Authors:

Dr Surya S. Durbha, *Professor at CSRE, Indian Institute of Technology Bombay (IITB).*

Dr Jyoti Joglekar, *Professor in the Department of Computer Engineering at K. J. Somaiya College of Engineering (KJSCE), Somaiya Vidyavihar University (SVU), Mumbai.*

Big Data Analytics



9780199497225
₹ 825.00
432 Pages
March 2020
Paperback
Indian Original
Authors: ***Sadasivam & Thirumahal***

The book has been written to cover the basics of analytics before moving to big data and its analytics. It seeks to translate the theory behind big data into principles and practices for a data analyst. The text is categorized into 4 sections: Basics of big data and NoSQL systems, Tools and frameworks for handling big data, Theory and methods of big data analytics, Infrastructure for big data.

Key Features:

- Chapter outlines and learning outcomes listed at the start of each chapter
- Illustrative discussion on big data frameworks and infrastructure
- Algorithms for data analytics on big data frameworks and tools
- Solved numerical examples to supplement the text
- Practice exercises and codes for various case studies on Hadoop, R, Spark, MongoDB, Storm, and Neo4j
- Interview questions highlighted as boxed items in each chapter
- Point-wise summary at the end of each chapter to enable quick revision
- Chapter-end exercises comprising objective-type questions with answers, critical thinking questions, descriptive type questions, and numerical exercises

ONLINE RESOURCES

For Faculty: PowerPoint Presentations
For Students: Interview Questions with Answers

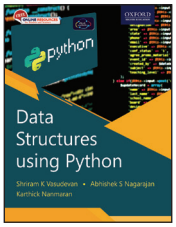
Content: 1. Introduction to Big Data Analytics; 2. Data Analytics Life Cycle; 3. Introduction to R; 4. NoSQL; 5. Hadoop; 6. Introduction to Preprocessing; 7. Theory and Methods: Association Rules; 8. Theory and Methods: Clustering; 9. Regression; 10. Classification; 11. Time Series Analysis; 12. Theory and Methods—Text Analysis; 13. Mining Data Streams; 14. NoSQL Databases—Neo4j and MongoDB; 15. Big Data Technology and Tools—Spark and Storm; 16. Big Data Infrastructure

About the Authors:

G. Sudha Sadasivam*, Professor and Head of the Department of Computer Science and Engineering, PSG College of Technology, Tamil Nadu.*

R. Thirumahal*, Assistant Professor in the Department of Computer Science and Engineering, PSG College of Technology, Tamil Nadu.*

Data Structures using Python



9780190124083
₹ 595.00
360 Pages
February 2021
Paperback
Indian Original
Authors: ***Vasudevan, Nagarajan & Nanmaran***

The core objective of this book is to introduce different types of data structures and make the readers strong in data structure application for solution implementation. It will also serve as a go-to reference book for professionals to understand important data structures widely used in the industry.

Key Features:

- Offers Simple and Lucid explanations for complex Data Structure concepts using analogies from real-world objects/systems
- Includes 170+ Codes and 190+ Figures, illustrating the concepts
- Comes with 300+ Chapter-end Exercises including multiple-choice questions, theoretical review questions, and exploratory application exercises.
- Provides 150+ 'Food for Brain' mid-chapter questions, picto puzzles, and mini projects, and 60+ Solved Examples

ONLINE RESOURCES

For Faculty: MCQs; Lecture PPTs; Instructors' Manual

Content: 1. Data Structures—Introduction; 2. Abstract Data Type and Analysis; 3. Linear Data Structures; 4. Continuous Memory-Based Linear Data Structures; 5. Pointer-Based Linear Data Structures; 6. Pointer-Based Hierarchical Data Structures; 7. Search Trees; 8. Priority Queues and Heaps; 9. Other Non-Linear Data Structures; 10. Memory Management; 11. Graphs; 12. Sorting; 13. Searching

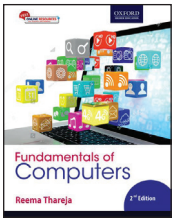
About the Authors:

Shriram K. Vasudevan*, Principal, K. Ramakrishnan College of Technology, Samayapuram, Trichy, Tamil Nadu.*

Abhishek S. Nagarajan*, Data Scientist, Cognitive Technology and Innovation Centre, 24[7].ai, Bengaluru.*

Karthick Nanmaran*, Asst Professor, Dept of CSE, SRM Institute of Science and Technology, Chennai.*

Fundamentals of Computers, 2e



9780199499274
₹ 495.00
296 Pages
June 2019
Paperback
Indian Original
Author: ***Thareja***

Key Features:

- Updated content – outdated devices / technologies replaced by current / emerging devices / technologies
- Lab activities – Relevant chapters are followed by lab activities which provide the practical implementation of the concepts covered in the chapter
- Expanded topical coverage – new illustrations, additional examples
- Updated version of Windows and MS Office - numerous lab activities based on Windows 10 and MS Office 2013
- Assessment through Oxford Areal – numerous MCQs and True/False questions which help readers to gain immediate feedback on their understanding of the concepts

ONLINE RESOURCES

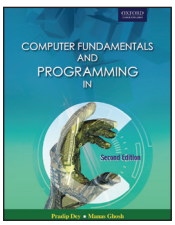
For Faculty: PowerPoint Presentations
For Students: Supplementary Reading

Content: 1. Introduction to Computers; 2. Input and Output Devices; 3. Computer Memory and Processors; 4. Number Systems and Computer Codes; 5. Boolean Algebra and Logic Gates; 6. Computer Software; 7. Operating Systems; 8. Introduction to Algorithms and Programming Languages; 9. Database Systems; 10. Computer Networks; 11. The Internet; 12. Emerging Computer Technologies

About the Author:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Computer Fundamentals and Programming in C, 2E



9780198084563
₹ 900.00
496 Pages
June 2013
Paperback
Indian Original
Authors: ***Dey & Ghosh***

New to the Second Edition:

- C99 features highlighted wherever relevant in the text
- New chapters: Introduction to Software; Internet and the World Wide Web
- Extensive reorganization of the computer fundamentals and functions chapters
- Points to Note, Check Your Progress sections, Key Terms, Frequently Asked Questions, and Project Questions with each chapter
- Improved explanation of algorithms and codes, and new in-text examples
- New sections such as error-detecting and error-correcting codes, working with complex numbers, variable length arrays, searching and sorting algorithms, pointer and const qualifier, and applications of linked lists

ONLINE RESOURCES

For Faculty: Solutions Manual; PowerPoint Slides
For Students: Program codes from the text; Appendices

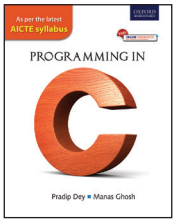
Content: 1. Computer Fundamentals; 2. Number Systems and Binary Arithmetic; 3. Boolean Algebra and Logic Gates; 4. Introduction to Software; 5. Basic Concepts of Operating Systems; 6. The Internet; 7. Introduction to Algorithms and Programming Concepts; 8. Basics of C; 9. Input and Output; 10. Control Statements; 11. Arrays and Strings; 12. Functions; 13. Pointers in C; 14. User-defined Data Types and Variables; 15. Files in C; 16. Advanced C

About the Authors:

Pradip Dey, *faculty member, RCC Institute of Information Technology, Kolkata.*

Manas Ghosh, *Assistant Professor, Department of Computer Application and also Training & Placement Advisor, at RCC Institute of Information Technology, Kolkata.*

Programming in C, (AICTE Edition)



9780199491476
₹ 785.00
496 Pages
August 2018
Paperback
Indian Original
Authors: ***Dey & Ghosh***

Key Features:

- Completely covers the latest AICTE model syllabus
- Illustrates widely used library functions with program codes and test cases
- Highlights the common mistakes to indicate the possible problem areas
- Includes an appendix illustrating algorithms and flowcharts on additional problems followed by working programs based on these algorithms

ONLINE RESOURCES

For Faculty: PowerPoint Presentations
For Students: Supplementary Reading

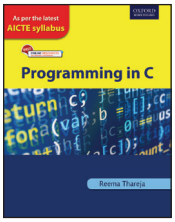
Content: 1. Computer Fundamentals; 2. Introduction to Programming, Algorithms and Flowcharts; 3. Basics of C; 4. Input and Output; 5. Control Statements; 6. Arrays and Strings; 7. Functions; 8. Pointers in C; 9. User-defined Data Types and Variables; 10. Files in C; 11. Linked Lists

About the Authors:

Pradip Dey, *faculty member, RCC Institute of Information Technology, Kolkata.*

Manas Ghosh, *Assistant Professor, Department of Computer Application and also Training & Placement Advisor, RCC Institute of Information Technology, Kolkata.*

Programming in C, (AICTE Edition)



9780199492282
₹ 699.00
392 Pages
August 2018
Paperback
Indian Original
Author: ***Thareja***

Key Features:

- Completely covers the latest AICTE syllabus
- Employs a very lucid style of presentation which makes the concepts easy to understand
- Provides more than 240 programming examples with outputs to illustrate the concepts
- Includes highly detailed pedagogy entailing examples, figures, algorithms, and programming tips
- Provides numerous chapter-end exercises to test the understanding of the theory

ONLINE RESOURCES

For Faculty: PowerPoint Presentations, Solutions Manual

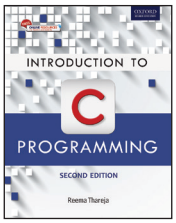
For Students: Multiple Choice Questions, Supplementary Reading: Data Structures

Content: 1. Introduction to Programming; 2. Introduction to C; 3. Decision Control and Looping Statements; 4. Functions; 5. Recursion; 6. Arrays; 7. Strings; 8. Algorithms; 9. Pointers; 10. Structure, Union, and Enumerated Data Types; 11. Files; 12. Linked Lists

About the Author:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Introduction to C Programming, 2E



9780199452057
₹ 995.00
400 Pages
July 2015
Paperback
Indian Original
Author: ***Thareja***

Key Features:

- Exhaustive coverage of fundamental topics with more than 200 program code examples with outputs
- Chapter on programming languages and the generations through which these languages have evolved, which gives readers an insight into computer software
- Chapter-wise case studies to enhance learning
- More than 700 objective-type questions, including fill-in-the-blanks, MCQS, and true/false questions
- Supporting annexures on topics such as sorting techniques, bit fields and slack bytes, deciphering pointer declarations, and a brief introduction to data structures

ONLINE RESOURCES

For Faculty: Solutions Manual; PowerPoint Presentations

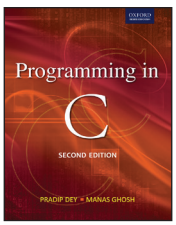
For Students: Multiple Choice Questions; Codes of Programming Examples

Content: 1. Introduction to Programming; 2. Introduction to C; 3. Decision Control and Looping Statements; 4. Functions; 5. Arrays; 6. Strings; 7. Pointers; 8. Structure, Union, and Enumerated Data Types; 9. Files; 10. Preprocessor Directives; 11. Linked Lists

About the Author:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Programming in C, 2E



9780198065289
₹ 695.00
560 Pages
September 2011
Paperback
Indian Original
Authors: ***Dey & Ghosh***

New to the Second Edition:

- New chapter on Stacks, Queues, and Trees
- Chapter-end case studies to demonstrate how concepts can be put into practice
- Improved explanations of algorithms and codes, and new in-text examples
- Incremental problem running through Chapters 3 to 9, illustrating program code building from basics

- New sections such as variable length arrays, searching and sorting algorithms, pointer and const qualifier, and applications of linked lists

ONLINE RESOURCES

For Faculty: PowerPoint Slides; Solutions Manual

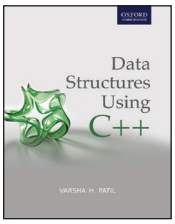
Content: 1. Introduction to Programming, Algorithms and Flowcharts; 2. Basics of C; 3. Input and Output; 4. Control Statements; 5. Arrays and Strings; 6. Functions; 7. Pointers in C; 8. User-Defined Data Types and Variables; 9. Files in C; 10. Linked Lists; 11. Advanced C; 12. Stacks, Queues, and Trees

About the Authors:

Pradip Dey, *Faculty member, RCC Institute of Information Technology, Kolkata.*

Manas Ghosh, *Assistant Professor, Department of Computer Application and also Training & Placement Advisor, RCC Institute of Information Technology, Kolkata.*

Data Structures Using C++



9780198066231
₹ 1500.00
820 Pages
February 2012
Paperback
Indian Original
Author: ***Patil***

Key Features:

- Provides a thorough overview of the fundamental concepts
- Includes numerous algorithms and program codes in C++ to illustrate the topics discussed
- Provides several illustrations and flowcharts to help understand the subject effectively
- Contains glossary and summary at the end of every chapter for a quick recapitulation

ONLINE RESOURCES

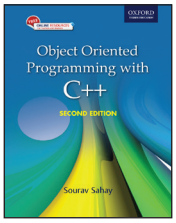
For Faculty: PowerPoint Presentations

Content: 1. Fundamental Concepts; 2. Linear Data Structure Using Arrays; 3. Stacks; 4. Recursion; 5. Queues; 6. Linked Lists; 7. Trees; 8. Graphs; 9. Searching and Sorting; 10. Search Trees; 11. Hashing; 12. Heaps; 13. Indexing and Multiway Trees; 14. Files; 15. Standard Template Library; 16. Algorithm Analysis and Design

About the Author:

Varsha H. Patil, *Head, Computer & I.T., Engineering Department, Matoshri College of Engineering & Research Centre, Nashik.*

Object Oriented Programming with C++, 2E



9780198065302
₹ 850.00
480 Pages
September 2012
Paperback
Indian Original
Author: ***Sahay***

New to this Edition:

- New chapter on data structures containing new and original algorithms, especially an elegant and simple recursive algorithm for inserting nodes into trees
- New sections on explicit constructors, command line arguments, and re-throwing exceptions
- Expanded glossary

ONLINE RESOURCES

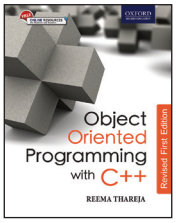
For Faculty: PowerPoint Presentations

Content: 1. Introduction to C++; 2. Classes and Objects; 3. Dynamic Memory Management; 4. Constructors and Destructors; 5. Inheritance; 6. Virtual Functions and Dynamic Polymorphism; 7. Stream and File Handling; 8. Operator Overloading, Type Conversion, New Style Casts, and RTTI; 9. Data Structures; 10. Templates; 11. Exception Handling

About the Author:

Sourav Sahay, *Lead Software Engineer, Virtusa Corp., USA.*

Object Oriented Programming with C++ (Revised 1E).



9780199485673
₹ 795.00
800 Pages
July 2017
Paperback
Indian Original
Author: ***Thareja***

Key Features:

- Provides plenty of programs executable on Dev C++ and g++ compilers along with their outputs to help readers enhance their programming skills
- Includes Notes and Programming tips to help readers keep in mind the critical concepts and do's and don'ts while developing a program
- Provides case-studies including programs interspersed within the text to demonstrate the implementation of the concepts learnt
- Contains a variety of chapter-end exercises including objective-type questions with answers, review questions, programming exercises, and find the error and output questions for practice
- Includes interview questions at the end of the book to help readers prepare for competitive examinations

ONLINE RESOURCES

For Faculty: Chapter-wise PPTs; Solutions Manual

For Students: Projects; MCQ Test Generator; Model Question Papers (with answers); Introduction to Graphics Programming; Solutions to find the output and error; questions; Algorithms for basic programs; Source codes of the programs given in the book; Case study on data structures and sorting; Extra Reading Material

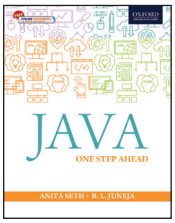
Content: 1. Introduction to Object Oriented Programming (OOP); 2. Basics of C++ Programming; 3. Decision Control and Looping Statements; 4. Functions; 5. Arrays; 6. Strings; 7. Pointers; 8. Structure, Union, and Enumerated Data Types; 9. Classes and Objects; 10. Constructors and Destructors; 11. Operator Overloading and Type Conversions; 12. Inheritance and Run-Time Polymorphism; 13. File Handling; 14. Templates; 15. Exception Handling; 16. STL and New Features in C++; 17. Object-Oriented System Analysis, Design, and Development

About the Author:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Java

One Step Ahead



9780199459643
₹ 1150.00
1216 Pages
May 2017
Paperback
Indian Original
Authors: ***Seth & Juneja***

Key Features:

- Detailed coverage of topics such as AWT and Swings, Event handling, Networking, Generic programming, and Collections
- Dedicated chapters on advanced topics such as JDBC, Servlets, and Java Beans
- Complete and tested programs (using JDK 8) given along with their outputs and explanations
- Notes, cartoon figures, and callouts along with the relevant concepts given throughout the text
- Separate section on common programming errors and error prevention tips provided to help readers practise good programming style
- Chapter-end exercises include MCQs, review questions, and programming exercises to help readers apply the learnt concepts
- Includes debugging exercises, mini projects, and case studies at the end of the chapters to help readers learn implementation of the concepts

ONLINE RESOURCES

For Faculty: PowerPoint slides; Lab exercises

For Students: Additional projects; Quizzes; List of packages in Java; Debugging exercises; Model question papers with answers

Content: 1. Object-oriented Programming and Evolution of Java; 2. Program Structure in Java; 3. Data Types, Variables, and Operators; 4. Control Statements; 5. Classes and Objects; 6. Methods; 7. Arrays; 8. Inheritance; 9. Interfaces; 10. Packages and Java Library; 11. Exception Handling; 12. String Handling in Java; 13. Multithreaded Programming; 14. Generic Programming; 15. Image Handling in Java; 16. Collections; 17. Input/Output Streams and File Operations; 18. Applets; 19. Event Handling; 20. Creating GUIs in AWT Windows; 21. Drawing in AWT Windows; 22. Swing—Part 1; 23. Swing—Part 2; 24. Networking; 25. Java Beans; 26. Java Servlets; 27. Java Database Connectivity

About the Authors:

Anita Seth, *IET, DAVV, Indore.*

B. L. Juneja, *Formerly at Indian Institute of Technology, Delhi.*

Programming in JAVA, Revised 2E

9780199484140
₹ 950.00
696 Pages
Feb 2018
Paperback
Indian Original
Authors: ***Malhotra & Choudhary***

New to this Edition:

- Updated to cover interfaces in Java SE 8 and lambdas
- Additional appendices on this reference, stacks versus heaps, pointers versus reference variables, regular expressions
-

ONLINE RESOURCES

For Faculty: PowerPoint Presentation; Prelude to Java 9

For Students: MCQs; Lab Manual; Prelude to Java 9

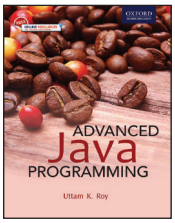
Content: 1. Introduction to OOP; 2. Getting Started With Java; 3. Java Programming Constructs; 4. Classes and Objects; 5. Inheritance; 6. Interfaces, Packages, and Enumeration; 7. Exception, Assertions, and Logging; 8. Multithreading in Java; 9. Input-Output, Serialization and Cloning; 10. Generics, java.util and other API; 11. Network Programming; 12. Applets; 13. Event Handling in Java; 14. Abstract Window Toolkit; 15. Swing; 16. Introduction to Advanced Java; Appendix A: this reference demystified; Appendix B: Stacks vs heaps; Appendix C: Pointer vs reference variables; Appendix D: Regular Expressions 8; Appendix E: Interfaces in Java 8; Appendix F: Functional Programming with Lambdas; Appendix G: Interview questions

About the Authors:

Sachin Malhotra, *Associate Professor, Department of Information Technology, IMS Ghaziabad.*

Saurabh Choudhary, *practising IT consultant and corporate trainer.*

Advanced Java Programming



9780199455508
₹ 1295.00
880 Pages
April 2015
Paperback
Indian Original
Author: ***Roy***

Key Features:

- Exhaustive coverage of advanced topics on Java from tools to enterprise Java
- A wide range of examples along with program codes and screenshots
- Relevant software installation and configuration information, wherever necessary
- Keywords, and numerous objective-type questions (with answers) and subjective-type questions for students at the end of all chapters

ONLINE RESOURCES

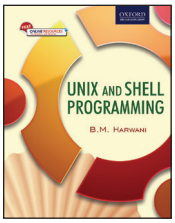
For Faculty: Chapter-wise PowerPoint slides
For Student: Objective-type questions

Content: 1. Java Tools; 2. Exception Handling; 3. Multi-threading; 4.Garbage Collection; 5. Collection Framework; 6. Generic Programming; 7. Reflection; 8. Java Native Interface; 9. AWT and Swing; 10. Java and XML; 11. Input-Output; 12. Basic Networking; 13. Socket Programming; 14. Remote Method Invocation; 15. Java Mail API; 16. Applets; 17. Java XML-RPC; 18. Java and SOAP; 19. Security; 20. Servlet; 21. Java Server Pages; 22. Java Database Connectivity (JDBC); 23. Hibernate; 24. Java Naming and Directory Interface; 25: Java Message Service; 26. Introduction to J2EE; 27. Java and CORBA; 28. Java Server Faces

About the Author:

Uttam Kumar Roy, *Department of Information Technology, Jadavpur University, Kolkata.*

Unix and Shell Programming



9780198082163
₹ 1150.00
720 Pages
October 2013
Paperback
Indian Original
Author: ***Harwani***

Key Features:

- Follows a bottom-up approach in explaining the concepts—from simple to large, complex, and critical commands and description
- Provides dedicated chapters on the three shells, namely, Bourne, Korn, and C
- Includes around 1000 solved examples for practising Unix commands and scripts
- Provides over 900 end-chapter exercises including objective-type questions, review questions, programming exercises, and brain teasers

ONLINE RESOURCES

For Faculty: Chapter-wise PowerPoint slides; Answers to programming exercises

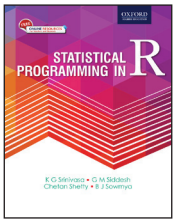
For Students: Chapter-wise executable and complete shell scripts and codes; Two projects—Mail Organizer and Inventory Management System; Debugging exercises with solutions; Flashcards—for active recall of all important Unix commands

Content: 1. Unix: An Introduction; 2. Unix File System; 3. Basic Unix Commands; 4. Advanced Unix Commands; 5. File Management and Compression Techniques; 6. Manipulating Processes and Signals; 7. System Calls; 8. Editors in Unix; 9. AWK Script; 10. Bourne Shell Programming; 11. Korn Shell Programming; 12. C Shell Programming; 13. Different Tools and Debuggers; 14. Interprocess Communication; 15. Unix System Administration and Networking

About the Author:

B. M. Harwani, *founder and owner of Microchip Computer Education (MCE), Ajmer.*

Statistical Programming in R



9780199480357
₹ 715.00
264 Pages
June 2017
Paperback
Indian Original
Authors: ***Srinivasa, Siddesh, Shetty & Sowmya***

Key Features:

- Addresses topics such as bar charts and pie charts to perform real data analysis ranging from reading data stored in various file formats to plotting the results of the analysis
- Illustrates examples such as binary search tree implementation and accessing keyboard and monitor for general input and output
- Explains the various constructs in R and the nuances among them
- Explains how R can interface with CSV, Excel, XML, and JSON files
- Provides lucid examples covering ANOVA, advanced statistics, splines, and also covers data visualization through R

ONLINE RESOURCES

For Faculty: Solutions Manual (for select exercises); Lecture PPTs

For Students: Useful web links

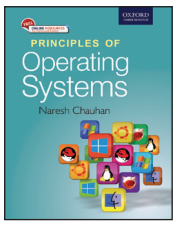
Content: 1. Basics of R; 2. Factors and Data Frames; 3. Lists; 4. Conditionals and Control Flow; 5. Iterative Programming in R; 6. Functions in R; 7. Apply Family in R; 8. Charts and Graphs; 9. Data Interfaces; 10. Statistical Applications

About the Authors:

K.G. Srinivasa, *Associate Professor and Head, Department of Information Technology, CBP Govt Engineering College, Jaffarpur, New Delhi.*

G.M. Siddesh, Chetan Shetty, *and* ***Sowmya B.J.,*** *Department of Information Science and Engineering, Ramaiah Institute of Technology, Bengaluru.*

Principles of Operating Systems



9780198082873
₹ 1250.00
688 Pages
June 2014
Paperback
Indian Original
Author: ***Chauhan***

Key Features:

- Explains how the modern OSs have been developed and discusses different types of OSs and OS architectures
- Highlights the hardware issues necessary to understand operating system concepts
- Contains dedicated chapters on specialized OSs such as distributed OSs, multiprocessor OSs, real-time OSs, mobile OSs (including Android OS), and multimedia OSs
- Covers every concept in depth and provides numerous solved examples interspersed within the text
- Provides specially designed brain teasers at the end of each chapter for the students to develop an analytical approach to problem solving
- Includes case studies of four OSs, namely, UNIX, Solaris, Linux, and Windows and two real-time OSs, VxWorks and QNX
- Contains a separate chapter on shell programming that will be helpful for operating system laboratory

ONLINE RESOURCES

For Faculty: Chapter-wise PowerPoint Slides

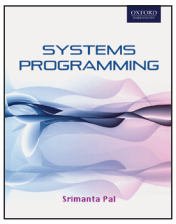
For Students: Solved questions for competitive examinations; Practical exercises for OS laboratory

Content: 1. Introduction to Operating Systems; 2. Hardware Support for Operating Systems; 3. Resource Management; 4. Operating System Architectures; 5. Fundamentals of Process Management; 6. Process Scheduling; 7. Process Communication and Synchronization; 8. Deadlocks; 9. Multi-threading; 10. Basic Memory Management; 11. Virtual Memory; 12. File Systems; 13. File System Implementation; 14. Basics of I-O Management; 15. Disk Management; 16. Security Issues; 17. Protection Mechanisms; 18. Distributed Operating Systems; 19. Multi-processor Operating Systems; 20. Real-time Operating Systems; 21. Mobile Operating Systems; 22. Multimedia Operating Systems; 23. Shell Programming and UNIX Shells

About the Author:

Naresh Chauhan, *Professor and Chairman, Department of Computer Engineering, YMCA University of Science & Technology, Faridabad.*

Systems Programming



9780198070887
₹ 1250.00
740 Pages
May 2011
Paperback
Indian Original
Author: ***Pal***

Key Features:

- Present real-life analogies to clarify the concepts discussed
- Includes separate chapters on debuggers, editors, system administration, and a detailed coverage of operating systems.
- Contains plenty of programming examples, algorithms, and conceptual as well as analytical exercises
- Contains an appendix comprising instruction sets for SIC-XE machine, Intel 8086, and MIPS

Content: 1. Scope of Systems Programming; 2. Prerequisites of Systems Programming; 3. Overview of System Software; 4. Machine Structures; 5. System File and Library Structures; 6. Machine and Mnemonic Languages; 7. Assembly Languages; 8. Programming in Assembly Language: an Illustrative Approach; 9. Assemblers; 10. Macros and Macro Languages; 11. Macro Programming: An Illustrative Approach; 12. Macro Processors; 13. Linkers; 14. Loaders; 15. Object Code Translators; 16. Overview of High-Level Translators; 17. High-Level Programming Languages for Compilers; 18. Design of Compilers; 19. Compiler-Compilers; 20. Principles of Operating Systems; 21. Editors; 22. Debuggers; 23. System Administration

About the Author:

Srimanta Pal, *Professor, Indian Statistical Institute, Kolkata.*

Compiler Design

9780198066644
₹ 1195.00
660 Pages
November 2012
Paperback
Indian Original
Author: ***Muneeswaran***

Key Features:

- Contains a dedicated chapter on compiler writing tools, including Lex, Yacc, JavaCC, and ANTLR
- Provides numerous objective type questions with answers, review questions, and exercises at the end of every chapter, graded as per Bloom's Taxonomy principles
- Includes appendices on the parsing of C language using tools such as Lex, Yacc, and JavaCC, additional solved problems, and five model question papers

ONLINE RESOURCES

For Faculty & Students: A mini-compiler

Laboratory exercises along with the source codes

Complete executable code showing the data structures and prototype declarations associated with the generation of quadruples (Chapter 6)

Source code for generating 8086 machine code from its instruction format (Chapter 8)

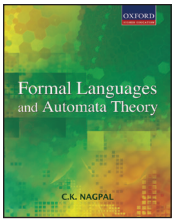
Complete codes for parsing C language using Lex, Yacc, and JavaCC (Appendices A and B)

Content: 1. Overview of Computer Hardware and System Software; 2. Introduction to Compilers; 3. Lexical Analysis; 4. Syntax Analysis; 5. Run-Time Storage Organization ; 6. Intermediate Code Generation; 7. Optimization; 8. Code Generation; 9. Compiler Writing Tools

About the Author:

K. Muneeswaran, *Formerly Head of the Department, Computer Science and Engineering, Mepco Schlenk Engineering College, Sivakasi.*

Formal Languages and Automata Theory



9780198071068
₹ 675.00
364 Pages
April 2011
Paperback
Indian Original
Author: ***Nagpal***

Key Features:

- Presents complex mathematical concepts in a simplified manner
- Provides several solved examples as well as supplementary examples in each chapter for better recapitulation of concepts
- Includes numerous multiple-choice questions with answers, and problems for practice at the end of each chapter
- Includes appendices on Church-Turing thesis, Godel numbering, key scientists, and important events in this field

ONLINE RESOURCES

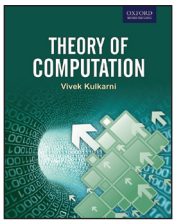
For Faculty: PowerPoint Presentations, Solutions Manuals

Content: 1. Automata, Formal Languages, and Computability; 2. Mathematical Preliminaries; 3. Finite Automata; 4. Regular Grammar and Regular Sets; 5. Context-free Grammars and Languages; 6. Pushdown Automata; 7. Turing Machines; 8. The Pitfall of Algorithmic Computing: Undesirability; 9. Computable Functions; 10. Computational Complexity: Tractable and Possibly Intractable Problems

About the Author:

Chander Kumar Nagpal, *Professor, Department of Computer Engineering, YMCA University of Science & Technology, Faridabad.*

Theory of Computation



9780198084587
₹ 1000.00
544 Pages
April 2013
Paperback
Indian Original
Author: ***Kulkarni***

Key Features:

- Presents each procedure in the text in algorithmic form for the readers to practise the concepts in any programming language of their choice
- Includes several solved examples in each chapter for better recapitulation of the concepts learnt
- Provides numerous objective type questions with answers, review questions, and exercises at the end of every chapter, graded as per Bloom's taxonomy principles
- Includes appendices containing the implementation details and C source codes for all the important algorithms discussed in the book, and five model question papers to assist students in preparing for their university examinations

ONLINE RESOURCES

For Faculty: PowerPoint slides; Solutions Manual

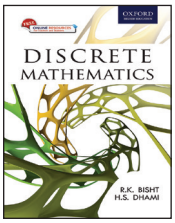
For Students: Source codes of all the programs provided in the book; Solutions to model test papers given in Appendix B

Content: 1. Preliminaries; 2. Finite State Machines; 3. Regular Expressions; 4. Turing Machines; 5. Grammars; 6. Pushdown Stack-memory Machine; 7. Parsing Techniques; 8. Post Machine; 9. Undecidability; 10. Complexity and Classification of Problems; 11. Production Systems

About the Author:

Vivek Kulkarni, *Principal Architect, Persistent Systems Ltd, Pune.*

Discrete Mathematics



9780199452798
₹ 1050.00
628 Pages
March 2015
Paperback
Indian Original
Authors: ***Dhami & Bisht***

Key Features:

- Presents mid-chapter boxed items, 'check your progress' sections, and chapter-end multiple-choice questions with answers
- Provides numerous solved examples and exercises grouped under different themes within every chapter
- Presents truth table values for conditional statements in context with an example
- Discusses an exclusive section on coding theory and digital logic
- Presents 'related research work' and 'application in brief' sections at the end of every chapter

ONLINE RESOURCES

For Faculty: Solutions manual; PowerPoint presentations

For Students: Test generator

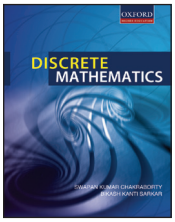
Content: 1. Introduction to Discrete Mathematics and Propositional Logic; 2. Set Theory; 3. Relations; 4. Functions; 5. Properties of Integers; 6. Counting Techniques; 7. Fundamentals of Probability; 8. Discrete Numeric Functions and Generating Functions; 9. Recurrence Relations; 10. Algebraic Structures; 11. Posets and Lattices; 12. Formal Languages and Finite Automata; 13. Graph Theory; 14. Applications of Discrete Mathematical Structures

About the Authors:

R.K. Bisht, *Associate Professor, Department of Computer Science & Applications, Amrapali Institute, Uttarakhand.*

H.S. Dhami, *Vice Chancellor, Kumaon University, Uttarakhand.*

Discrete Mathematics



9780198065432
₹ 1050.00
584 Pages
December 2010
Paperback
Indian Original
Authors: ***Chakraborty & Sarkar***

Key Features:

- Contains numerous solved examples and end-chapter exercises
- Lays emphasis on the applicability of mathematical structures to computer science
- Includes separate chapters on combinatorics and automata theory
- Includes additional topics on Boolean algebra and automata theory as well as an appendix on number theory

ONLINE RESOURCES

For Faculty: Solutions Manual

Content: 1. Sets, Relations, and Functions; 2. Combinatorics; 3. Mathematical Logic; 4. Algebraic Structures; 5. Matrix Algebra; 6. Order, Relation, and Lattices; 7. Boolean Algebra; 8. Complexity; 9. Graph Theory; 10. Tree; 11. Formal Language and Automata

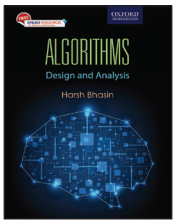
About the Authors:

S. K. Chakraborty, *Department of Applied Mathematics, BIT, Mesra, Ranchi.*

B.K. Sarkar, *Department of Information Technology and MCA, BIT, Mesra, Ranchi.*

Algorithms

Design and Analysis



9780199456666
₹ 1300.00
720 Pages
October 2015
Paperback
Indian Original
Author: ***Bhasin***

Key Features:

- Offers in-depth treatment of topics such as complexity analysis, design paradigms, data structures, and machine learning algorithms
- Introduces topics like Decrease and Conquer, Transform and Conquer and PSpace along with standards paradigms
- Explains numerical methods including Euclid's theorem and Chinese Remainder Theorem and also reviews essential mathematical concepts
- Provides points-to-remember and a list of key terms at the end of each chapter which will help readers to quickly recollect important concepts
- Exercises given at the end of each chapter and in the Appendix 10 would help students prepare for their examinations and job interviews

ONLINE RESOURCES

For Faculty: PowerPoint Slides; Solutions Manual for chapter-end problems; Assignment Questions with answers

For Students: Additional MCQs for Test Generator (with answers) for each chapter; C language implementation of algorithms; Interview Questions with answers

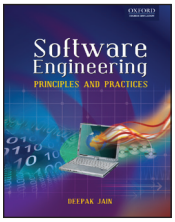
Content: 1. Introduction to Algorithms; 2. Growth of Functions; 3. Recursion; 4. Analysis of Algorithms; 5. Basic Data Structures; 6. Trees; 7. Graphs; 8. Sorting in Linear and Quadratic Time; 9. Divide and Conquer; 10. Greedy Algorithms; 11. Dynamic Programming; 12. Backtracking; 13. Branch and Bound; 14. An Introduction to Randomized Algorithms; 15. Transform and Conquer; 16. Decrease and Conquer; 17. Number Theoretic Algorithms; 18. String Matching; 19. Complexity Classes; 20. An Introduction to PSpace; 21. Approximation Algorithms; 22. Parallel Algorithms; 23. An Introduction to Machine Learning Approaches; 24. Computational Biology and Bioinformatics

About the Author:

Harsh Bhasin, *Consultant.*

Software Engineering

Principles and Practices



9780195694840
₹ 995.00
520 Pages
November 2008
Paperback
Indian Original
Author: ***Jain***

Key Features:

- Lays emphasis on automated processes for development and testing of software
- Discusses various Software Development Process Models of latest industrial practices including a section on Capability Maturity Model (CMM)
- Provides exhaustive coverage of software project cost estimation models like Cost Constructive Model (COCOMO) and Delphi model
- Incorporates several case studies to bring out the practical implications of software engineering
- Includes end-chapter exercises with several review, multiple-choice questions and critical-thinking questions
- Contains sample question papers and interview questions for cracking university examinations and job interviews

ONLINE RESOURCES

For Faculty: PowerPoint Presentations

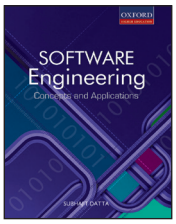
Content: 1: Software and Software Engineering; 2: Software Engineering Process and Models; 3: Software Requirements Engineering; 4: Principles of Modelling; 5: Quantifying Software with Metrics; 6: Software Project Planning and Management; 7: Software Design and Implementation; 8: Software Testing; 9: Software Delivery and Maintenance; 10: Software Retirement

About the Author:

Deepak Jain, *HCL Technologies Limited, Noida.*

Software Engineering

Concepts and Applications



9780195696561
₹ 995.00
516 Pages
October 2010
Paperback
Indian Original
Author: ***Datta***

Key Features:

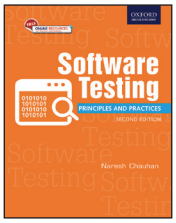
- Discusses the theory of software engineering in the context of its practice
- Covers topics best suited to readers with limited or no prior exposure to software engineering
- Presents background information in the form of exhibits for many of the topics
- Includes worked-out examples, review questions, reflective questions, numerical problems, case studies, and programming examples to aid self-evaluation.
- Keeps the readers updated with new developments in the field through blogs and other online social media (www.dattas.net)

Content: 1. What is Software Engineering; 2. Evolution of Software Engineering; 3. Basic Ideas and First Principles; 4. Software Development Methodologies; 5. Place of Process in Software Development; 6. Software Estimation; 7. Role of Metrics in Software Development; 8. Software Project Management; 9. Human Aspects of Software Development; 10. Role of Automation in Software DevelopmentPart III Making Software; 11. Understanding Software Architecture; 12. Paradigms of Software Development; 13. Languages of Software Development; 14. Software Development across Workflows and Phases; 15. Building a Software System: An Extended Case Study; 16. Tricks of the Trade; 17. Software Testing, Reliability, and Quality; 18. Towards Software Evolution; 19. Software Engineering and the World Wide Web; 20. Towards Enterprise Software Development; 21. Global Software Development; 22. Open Source Software Development; 23. Future of Software

About the Author:

Subhajit Datta, *Software Professional.*

Software Testing, 2E



9780199465873
₹ 925.00
560 Pages
December 2016
Paperback
Indian Original
Author: ***Chauhan***

New to this Edition:

- A chapter on Agile Testing focusing on the agile testing methodology which has gained importance in recent years
- Strengthened coverage of dynamic testing techniques, with the inclusion of robust worst-case testing method, orthogonal array testing strategy, predicate coverage, and path sensitization
- Test case prioritization techniques based on data flow, module-coupling slice, and program structure analysis
- Testing techniques such as reliability testing and system testing based on use-cases
- Additional examples on black-box and white-box testing techniques
- An appendix (available online) which provides an overview of the working environment and components of CAST tools such as JMeter, JUnit, and Selenium

ONLINE RESOURCES

For Faculty: Chapter PowerPoint Slides; Case Study and its Source/Executable Files; Appendix on Popular CAST tools

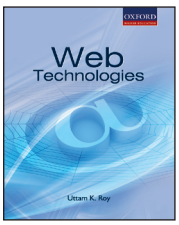
For Students: Checklists; Executable Files of Programs in the Book; Case Study and its Source/Executable Files; Appendix on Popular CAST tools

Content: 1. Introduction to Software Testing; 2. Software Testing Terminology and Methodology; 3. Verification and Validation; 4. Dynamic Testing: Black-box Testing Techniques; 5. Dynamic Testing: White-box Testing Techniques; 6. Static Testing; 7. Validation Activities; 8. Regression Testing; 9. Test Management; 10. Software Metrics; 11. Testing Metrics for Monitoring Controlling the Testing Process; 12. Efficient Test Suite Management; 13. Automation and Testing Tools; 14. Testing Object-oriented Software; 15. Testing Web-based Systems; 16. Testing Agile-based Software; 17. Debugging; 18. Software Quality Management; 19. Testing Process Maturity Models

About the Author:

Naresh Chauhan, *Professor, Department of Computer Engineering, YMCA University of Science & Technology, Faridabad.*

Web Technologies



9780198066224
₹ 1099.00
776 Pages
November 2010
Paperback
Indian Original
Author: ***Roy***

Key Features:

- Provides thorough understanding of the working of each technology through extensive examples along with the program codes and screenshots
- Demonstrates where and how to use web technologies effectively
- Provides relevant software installation and configuration information wherever necessary
- Covers advanced concepts such as MVC and Struts and emerging topics such as XQuery

ONLINE RESOURCES

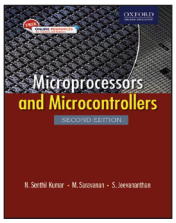
For Faculty: Answers to review questions, PowerPoint Presentations

Content: 1. Introduction to the Web; 2. HyperText Transfer Protocol (HTTP); 3. Java Network Programming; 4. HyperText Markup Language (HTML); 5. Cascading Style Sheet (CCS); 6. eXtensible Markup Language (XML); 7. XML DTD; 8. W3C XML Schema; 9. Parsing XML; 10. XPath; 11. XML Transformation; 12. Other XML Technologies; 13. JavaScript; 14. JavaScript and HTML DOM; 15. Advanced JavaScript and HTML Forms; 16. JavaScript Regular Expression; 17. AJAX; 18. Applets; 19. Common Gateway Interface (CGI); 20. Servlet; 21. Java Server Pages (JSP); 22. Introduction to J2EE

About the Author:

Uttam Kumar Roy, *Department of Information Technology, Jadavpur University, Kolkata.*

Microprocessors and Microcontrollers, 2E



9780199466597
₹ 1200.00
872 Pages
August 2016
Paperback
Indian Original
Authors: ***Kumar, Saravanan, Jeevanathan***

Key Features:

- Case studies: Further to the already covered real-life applications such as traffic light control, washing machine control and elevator control, this edition includes new case studies on microprocessor-based temperature control system and thyristor triggering control.
- Additional topics: Additional timing diagrams for 8085, debugging of assembly language programs, ARM microcontrollers, and additional programming examples for 8051 in C language.
- Programming examples: Numerous additional solved examples for 8051 to aid in better understanding of the theory.

ONLINE RESOURCES

For Faculty: PowerPoint Presentations, Solutions Manuals

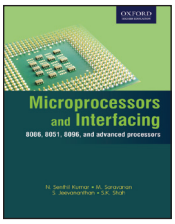
Content: 1. Microprocessors—Introduction and Evolution; 2. Intel 8085 Microprocessor Architecture; 3. Instruction Set and Execution in 8085; 4. Assembly Language Programming of 8085; 5. Methods of Data Transfer and Interrupt Structure in 8085; 6. Interfacing Memory and I/O Devices with 8085; 7. Features and Interfacing of Programmable Devices for 8085-based Systems; 8. A Complete 8085-based System; 9. Introduction to 8051 Microcontrollers; 10. 8051 Instruction Set and Programming; 11. Hardware Features of 8051; 12. 8051 Interface Examples; 13.

Intel 8086 Microprocessor—Architecture, Features, and Signals; 14. Addressing Modes, Instruction Set, and Programming of 8086; 15. 8086 Interrupts; 16. Memory and I/O Interfacing; 17. Multiprocessor Configuration; 18. 8086-based Systems; 19. Intel 8096 Microcontrollers—Architecture and Programming; 20. Microprocessor System Developments and Recent Trends; 21. Advanced Microprocessors and Microcontrollers

About the Authors:

N. Senthil Kumar, *Mepco Schlenk Engineering College, Sivakasi*
M. Saravanan, *Thiagarajar College of Engineering, Madurai*
S. Jeevananthan, *Pondicherry Engineering College*

Microprocessors and Interfacing



9780198079064
₹ 1200.00
848 Pages
May 2012
Paperback
Indian Original
Authors: ***Kumar, Saravanan, Jeevanathan & Shah***

Key Features:

- Provides assembly language program codes with corresponding comments
- Explains memory and peripheral interfacing concepts in an easily understandable way
- Discusses case studies on electronic weighing machine, temperature monitoring and control
- DC motor speed monitoring, and control as an appendix
- Provides numerous programming examples, think and answer type questions, design-based
- Exercises, and programming exercises
- Includes more than 200 multiple choice questions on 8085, 8086, and 8051 processors

ONLINE RESOURCES

For Faculty: PowerPoint Presentation; Solutions Manual

Content: 1. Microprocessors—Evolution and Introduction to 8085; 2. Methods of Data Transfer and Serial Transfer Protocols; 3. Intel 8086 Microprocessor Architecture, Features, and Signals; 4. Addressing Modes, Instruction Set, and Programming of 8086; 5. 8086 Interrupts; 6. Memory and I-O Interfacing; 7. Features and Interfacing of Programmable Devices for 8086-based Systems; 8. Multiprocessor Configuration; 9. 8086-based Systems; 10. Introduction to 8051 Microcontrollers; 11. 8051 Instruction Set and Programming; 12. Hardware Features of 8051; 13. 8051 Interface Examples; 14. Overview of Intel 8096 Microcontrollers; 15. 8096 Instruction Set and Programming; 16. Hardware Features of 8096; 17. Microprocessor System Developments and Recent Trends; 18. Advanced Microprocessors and Microcontrollers; 19. Embedded Systems; 20. Hybrid Programming Techniques using ASM and C-C++

About the Authors:

N. Senthil Kumar, *Mepco Schlenk Engineering College, Sivakasi*
M. Saravanan, *Thiagarajar College of Engineering, Madurai*
S. Jeevananthan, *Pondicherry Engineering College*
S.K. Shah, *The Maharaja Sayajirao University of Baroda, Vadodara.*

8051 Microcontrollers

MCS 51 Family and Its Variants

9780198063575
₹ 1150.00
624 Pages
May 2010
Paperback
Indian Original
Author: ***Shah***

Key Features:

- Covers the operation, initialization, interfacing, and programming of peripheral IC chips: 8255, 8253-8254, 8279, 8251, and RTC-DS1287
- Discusses popular microcontrollers such as Intel MCS 51, Atmel, and other variants
- Illustrates programming examples with algorithms and code segments
- Provides review questions and programming exercises at the end of every chapter
- Contains C programs in all chapters where applications are discussed
- Includes appendices containing instruction sets

ONLINE RESOURCES

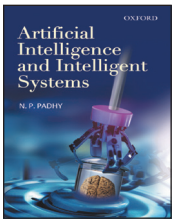
For Faculty & Students: Additional Resources

Content: 1. Evolution of Microcontrollers; 2. Introduction to Microcontroller Families; 3. Introduction to Assembly Language Programming; 4. Advanced Programming Techniques; 5. External Peripheral Devices; 6. Interfacing Parallel Devices; 7. Interfacing Serial Devices; 8. System Design; 9. Application I: Smart Energymeters; 10. Application II: Power Line Communication; 11. Application III: Projection Welding Machine Controller; 12. Application IV: Add-On Features For Telephones; 13. Application V: IR-Based Wireless Communication; 14. Application VI: RF-Based Inter-Controller Wireless Communication; 15. Application VII: Mobile Communication

About the Author:

Satish Shah, *Professor, Department of Electrical Engineering, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat.*

Artificial Intelligence & Intelligent Systems



9780195671544
₹ 950.00
632 Pages
February 2005
Paperback
Indian Original
Author: ***Padhy***

Key Features:

- Includes real-world examples to illustrate concepts
- Contains a separate chapter on programming languages in AI
- Includes new topics such as sworn intelligent systems
- Explains genetic algorithms and swarm intelligence using examples
- Provides numerous illustrations, examples, and end-chapter exercises

ONLINE RESOURCES

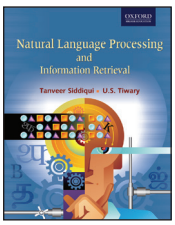
For Faculty: Solutions Manual

Content: 1. Artificial Intelligence: History and Applications; 2. Knowledge Representation: Reasoning, Issues, and Acquisition; 3. Heuristic Search; 4. State Space Search: Implementation and Applications; 5. Artificial Intelligence Problem-solving Languages; 6. Expert Systems; 7. Fuzzy Systems; 8. Artificial Neural Networks; 9. Genetic Algorithms and Evolutionary Programming; 10. Swarm Intelligent Systems

About the Author:

N.P. Padhy, *Professor, Department of Electrical Engineering, Indian Institute of Technology, Roorkee, and a Chair Professor of NEEPCO (North East Electric Power Company).*

Natural Language Processing & Information Retrieval



9780195692327
₹
416 Pages
April 2008
Paperback
Indian Original
Authors: ***Siddiqui & Tiwary***

Key Features:

- Focuses on both statistical and semantic approaches
- Illustrates concepts with examples from Indian languages
- Provides coverage on recent applications such as information extraction and text summarization
- Includes a chapter on available lexical resources

Content: 1. Language Modelling; 2. Word Level Analysis; 3. Syntactic Analysis; 4. Semantic Analysis; 5. Discourse Context and World Knowledge; 6. Natural Language Generation; 7. Machine Translation; 8. Information Retrieval-I; 9. Information Retrieval-II; 10. Other Applications

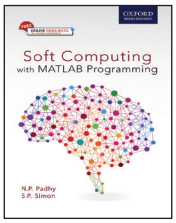
About the Authors:

Tanveer Siddiqui, *University of Allahabad.*

U. S. Tiwary, *IIIT Allahabad.*

Soft Computing

with MATLAB Programming



9780199455423
₹ 1250.00
684 Pages
May 2015
Paperback
Indian Original
Authors: ***Padhy & Simon***

Key Features:

- Discusses swarm intelligence systems with their fundamental concepts of exploration and exploitation
- Elaborates on Artificial Bee Colony algorithm and Cuckoo Search algorithm with suitable applications
- Provides more than 25 MATLAB programs with step-by-step comments and 75 solved problems
- Discusses swarm intelligent systems

ONLINE RESOURCES

For Faculty: PowerPoint Slides; Solutions Manual

For Students: Additional MATLAB Codes and Exercises
Solutions to Model Question Papers

Content: 1. Introduction to Soft Computing; 2. Artificial Neural Networks - First Generation; 3. Artificial Neural Networks - Second Generation; 4. Artificial Neural Networks - Third Generation; 5. Fuzzy Logic; 6. Fuzzy Logic Applications; 7. Genetic Algorithms and Evolutionary Programming; 8. Swarm Intelligent System

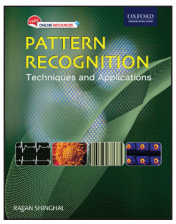
About the Authors:

N.P. Padhy, *Professor, Department of Electrical Engineering, Indian Institute of Technology, Roorkee, and a Chair Professor of NEEPCO (North East Electric Power Company).*

S.P. Simon, *Associate Professor, NIT Tiruchirappalli.*

Pattern Recognition

Techniques and Applications



9780195676853
₹ 750.00
304 Pages
December 2005
Paperback
Indian Original
Author: ***Shinghal***

Key Features:

- Exhaustive and detailed coverage of procedures of Pattern Recognition

- Emphasis on practical applications for all the theory presented.
- Both programming as well as non-programming exercises for each chapter
- Separate chapters on syntactic pattern recognition, feature selection and clustering
- Provides projects in appendix: one on medical prognostication and the other on optical character recognition

ONLINE RESOURCES

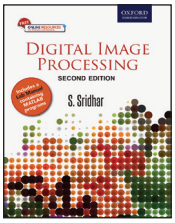
For Faculty and Students: Additional Resources

Content: 1. Learning to Recognize Patterns; 2. Decision Trees: Basics; 3. Decision Trees: Extensions; 4. Obtaining Prules by Evolution; 5. Bayes Classification; 6. Nearest Neighbour Classification; 7. Multilayer Neural Nets; 8. Linear Classification; 9. Cross Validation and Attribute Selection; 10. Clustering; 11. Syntatic Pattern Recognition; 12. Summing Up

About the Author:

Rajjan Shinghal, *Formerly Professor of Computer Science, Concordia University, Montreal*

Digital Image Processing, 2E



9780199459353
₹ 1350.00
736 Pages
June 2016
Paperback
Indian Original
Author: ***Sridhar***

Key Features:

- A chapter on wavelet transforms and multiresolution analysis which focuses on the wavelet transform-based image processing as well as wavelet-based image compression
- Topics such as image security, visual effects, Radon transform, digital image forensics, and computer vision
- Pedagogical features such as crossword and word search problems
- Colour plates illustrating the effect of different image processing operations and image processing applications such as visual effects
- Additional illustrations, solved examples, and MATLAB exercises

ONLINE RESOURCES

For Students: Answers to crosswords and word search puzzles, Colour images from select chapters, Matlab programmes, Test images for performing lab exercises

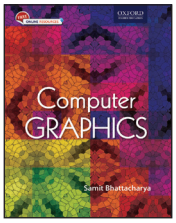
For Faculty: PowerPoint Presentations, Solutions Manuals

Content: 1. Introduction to Image Processing; 2. Digital Imaging Systems; 3. Digital Image Processing Operations; 4. Digital Image Transforms; 5. Image Enhancement; 6. Image Restoration; 7. Image Compression; 8. Wavelet Transform and Multiresolution Analysis; 9. Image Segmentation; 10. Colour Image Processing; 11. Image Morphology; 12. Image Features Representation and Description ; 13. Object Recognition; 14. Related Topics

About the Author:

S. Sridhar*, Professor, Department of Information Science and Technology, College of Engineering, Guindy Campus, Anna University, Chennai.*

Computer Graphics



9780198096191
₹ 1350.00
304 Pages
December 2015
Paperback
Indian Original
Author: ***Bhattacharya***

Key Features:

- Follows the 3D graphics pipeline based discussion—a technique that helps students grasp 2D/3D concept quickly
- Adopts an algorithmic approach to help students develop programs in any programming language of their choice
- Contains a separate chapter focusing on multimedia and hypermedia
- Provides a chapter on graphics hardware including a discussion on GPU fundamentals and the latest monitor technologies such as plasma panels, light-emitting diode (LED) displays, and liquid crystal displays (LCDs)

ONLINE RESOURCES

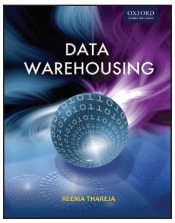
For Faculty: PowerPoint Presentations

Content: 1. Overview of Computer Graphics; 2. Object Representation Techniques; 3. Modeling Transformations; 4. Illumination, Lighting Models, and Intensity Representation; 5. Color Models and Texture Synthesis; 6. 3D Viewing; 7. Clipping; 8. Hidden Surface Removal; 9. Rendering; 10. Graphics Hardware and Software; 11. Computer Animation; 12. Multimedia and Hypermedia

About the Author:

Samit Bhattacharya, *IIT Guwahati.*

Data Warehousing



9780195699616
₹ 900.00
484 Pages
March 2009
Paperback
Indian Original
Author: ***Thareja***

Key Features:

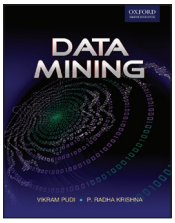
- Incorporates a step-by-step approach to designing and building a data warehouse
- Provides numerous review questions, multiple choice questions, and end-chapter exercises
- Contains a running case-study to bring out the practical aspects of building and maintaining a data warehouse
- Illustrates difficult concepts through several examples

Content: 1. Introduction to Data Warehousing; 2. Data Warehouse: Defining Features; 3. Architects of a Data Warehouse; 4. Gathering the Business Requirements; 5. Planning and Project Management; 6. Data Warehouse Schema; 7. Dimensional Modelling; 8. The ETL Process; 9. Testing, Growth, and Maintenance; 11. Building a Data Warehouse; 12. Data Mining Basics; 13. Moving into Data Mining; 14. Trends in Data Warehousing

About the Author:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

Data Mining



9780195686289
₹ 920.00
352 Pages
January 2009
Paperback
Indian Original
Authors: ***Pudi & Krishna***

Key Features:

- Supplies an exhaustive and detailed coverage of algorithms for data mining
- Lays emphasis on practical applications for all the theory presented
- Follows a clear and concise style, making it easy to grasp complex concept
- Provides case studies to bring out the applications of data mining concepts in real-life scenarios

ONLINE RESOURCES

For Faculty: PowerPoint Presentations

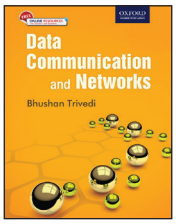
Content: 1. Introduction; 2. Frequent Pattern Mining; 3. Classification; 4. Clustering; 5. Pattern Discovery in Real World Data; 6. Data Warehousing: The Data Model; 7. Data Warehousing: Query Processing; 8. Case Studies; 9. Current Trends in Pattern Discovery

About the Authors:

Vikram Pudi, *International Institute of Information Technology, Hyderabad.*

P. Radha Krishna*, Professor, NIT Warangal.*

Data Communication and Networks

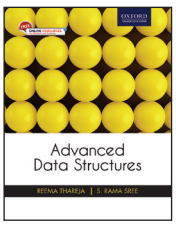


9780199455997
₹ 1350.00
880 Pages
February 2016
Paperback
Indian Original
Author: ***Trivedi***

Key Features:

- Incorporates the layered approach emphasizing the TCP/IP model with real-world applications such as the Internet and ethernet technologies
- Covers the fundamentals of the data link layer and its related protocols, medium access sublayer, and classful and classless addressing

Advanced Data Structures



9780199487172
Print on Demand
296 Pages
Paperback
December 2017
Indian Original
Authors: ***Thareja & Rama Sree***

Content: 1. External Sorting; 2. Hashing; 3. Trees; 4. Priority Queues Heaps; 5. Efficient Binary Search Trees; 6. Multi-way Search Trees; 7. Digital Search Structures; 8. Graphs

About the Authors:

Reema Thareja, *Assistant Professor, Department of Computer Science, Shyama Prasad Mukherji College for Women, University of Delhi.*

S. Rama Sree, *Professor, Department of Computer Science and Engineering, Aditya Engineering College, Andhra Pradesh.*

- Elucidates the basics of the network layer including routing algorithms, protocols, datagram and IP routing, IPSec, and IPv6
- Provides in-depth coverage of application layer concepts such as DNS, WWW, HTTP, email system, FTP, bluetooth, multimedia, and DHCP
- Includes numerous illustrations, sidebars, tables, keywords, and points to remember to enable quick recapitulation

ONLINE RESOURCES

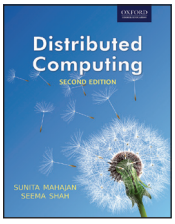
For Faculty: PowerPoint Presentations, Question Banks, Solutions Manuals

Content: 1. Introduction to Computer Networks and Data Communication; 2. Network Fundamentals; 3. Data Communication Fundamentals; 4. Digital Communication; 5. The Physical Layer; 6. Wired and Wireless Physical Layers; 7. The Data Link Layer; 8. Network Protocols; 9. The Medium Access Sub-layer; 10. Addressing in Internet; 11. The Network Layer; 12. The Transport Layer; 13. The Application Layer; 14. Cryptography and Security; 15. IP Security and Other Security Solutions

About the Author:

Bhushan Trivedi, *GLS Institute of Computer Technology, Ahmedabad.*

Distributed Computing, 2E



9780198093480
₹ 1150.00
636 Pages
June 2013
Paperback
Indian Original
Author: ***Mahajan & Shah***

New to this Edition:

- API for Internet protocol in Java
- New chapter on formal model for simulation
- Two new case studies on CORBA and Mach

Content: 1. Basic Distributed System Concepts; 2. Network Communication; 3. Interprocess Communication; 4. Remote Communication; 5. Synchronization; 6. Simulation Basics for Formal Model Specifications; 7. Distributed System Management; 8. Distributed Shared Memory; 9. Distributed File System; 10. Naming; 11. Security in Distributed Systems; 12. Real-time Distributed Operating Systems; 13. Distributed Database Management System; 14. Emerging Trends in Distributed Computing

ONLINE RESOURCES

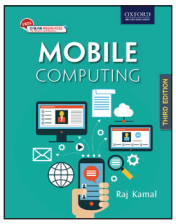
For Faculty: PowerPoint Presentations

About the Authors:

Sunita Mahajan, *Principal, Institute of Computer Science, MET League of Colleges, Mumbai.*

Seema Shah, *Acting Principal, Vidyalankar Institute of Technology, Mumbai University.*

Mobile Computing, 3E



9780199455416
₹ 1100.00
600 Pages
April 2019
Paperback
Indian Original
Author: ***Raj Kamal***

New to this Edition:

- Up-to-date coverage includes new topics such as 4G and 5G networks, smart client architecture in a mobile computing architecture and additional layers—user interfaces and data stores, application-servers, gateways, virtual, enterprise and cloud data servers
- Extensive coverage of developments in mobile and web application languages such as XML, HTML, and HTML5, and mobile computing languages such as Java, J2ME, Python, and dot Net framework
- Dedicated chapters on mobile application development platforms, methods of using app-development architecture and advanced mobile Oss, namely, Apple iOS 11 and Android Oreo

ONLINE RESOURCES

For Faculty: Lecture PPTs; Solution Manual

For Students: Additional reading material; Additional quiz questions with solutions

Content: 1. Mobile Communication: An Overview; 2. Mobile Computing Architecture: An Overview; 3. Mobile Client Devices and Pervasive Computing Systems; 4. Second-generation Architecture—GSM, GPRS, and Others; 5. Wireless Medium Access Control, CDMA, 3G, WiMax, and 4G Networks; 6. Mobile IP Network Layer; 7. Mobile Transport Layer; 8. Database Management Issues in Mobile Computing; 9. Data Dissemination and Synchronization; 10. Mobile Ad hoc Networks and Wireless Sensor Networks; 11. Wireless Network Protocols; 12. Service Discovery, Wireless Enterprise, and Virtual and Cloud Networks; 13. Mobility, Portability, Replication, and Clustering; 14. Smart Client, DataStore, Synchronization and Messaging, and Enterprise Server-based Architecture; 15. Mobile Internet Applications—XML-based Languages; 16. Mobile Application Languages and Framework—Java, J2ME, Python, and .Net; 17. Mobile Operating Systems and Development Environment for Smartphones; 18. New iOS, Android, and Windows Phone Mobile Operating Systems

About the Author:

Raj Kamal, *Director, Medicaps Institute of Technology, Madhya Pradesh.*

Cloud Computing

9780199477388
₹ 715.00
344 Pages
June 2018
Paperback
Indian Original
Author: ***Singh***

Key Features:

- Discusses cloud computing models, cloud data center, virtualization technology both at the system and network level, and the architecture in detail
- Covers topics such as Cloud Platforms and Security, that are central to the subject, in separate chapters
- Provides a well-written points-to-remember section, review questions, key terms with explanation, and multiple-choice questions at the end of every chapter
- Includes appendices with study of Amazon network, Microsoft, Salesforce.com, Eucalyptus, Aneka, and Hypervisors
- Comes with Model Question Papers from different universities

ONLINE RESOURCES

For Faculty: PowerPoint Presentations
For Students: MCQs for Test Generator; Additional Cases

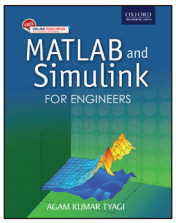
Content: 1. Overview of Cloud Computing; 2. Factors that Affect Cloud Computing; 3. Cloud Computing Architecture; 4. Models of Cloud Computing; 5. Cloud Data Center; 6. Virtualization Technology (At Server); 7. Virtualization Technology (At Network); 8. Virtualization Technology (At Desktop and Application); 9. Cloud Infrastructure Management and Migration; 10. Security Issues of Cloud Computing; 11. Computing Platforms; 12. Advanced Technologies in Cloud Computing

About the Author:

Shailendra Singh, *Professor and Head, Department of Computer Engineering and Application, NITTTR, Bhopal.*

Matlab and Simulink

For Engineers



9780198072447
₹ 895.00
492 Pages
November 2011
Paperback
Indian Original
Author: ***Tyagi***

Key Features:

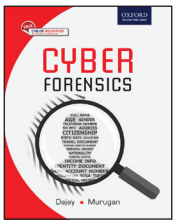
- Uses version 2010a of MATLAB
- Includes important MATLAB graphs in color
- Emphasizes on circuit simulations and designing using Simulink

Content: 1. Introduction to MATLAB Programming; 2. Fundamentals of MATLAB Programming; 3. Fundamentals of Simulink; 4. Basic Electrical Engineering Applications; 5. Simulation of Rectifiers; 6. Simulation of Inverters; 7. Simulation of Choppers and Cycloconverters; 8. Power System Engineering; 9. Control System Engineering and Electrical Machines; 10. Miscellaneous Applications; 11. Simulation of Power Converters

About the Author:

Agam Kumar Tyagi, *Electrical Engineering Department, College of Engineering Studies, University of Petroleum & Energy Studies, Dehradun, Uttarakhand.*

Cyber Forensics



9780199489442
₹ 995.00
504 Pages
June 2018
Paperback
Indian Original
Authors: ***Dejey & Murugan***

Key Features:

- Provides a perfect balance of discussion on cybercrime, forensics, and cyber laws (both Indian and International)
- Discusses principles, processes, and case studies for a better grasp of concepts
- Introduces a fundamental chapter on computer networks and security
- Provides a model case example report as an appendix for a better understanding of how forensic examination findings are reported and documented

ONLINE RESOURCES

For Faculty: Lecture PPTs; Instructor's manual (hints/answers to chapter-end application exercises)
For Students: Colour illustrations from the book; Video resources on email tracing, tracking, and recovery of deleted files

Content: 1. Fundamentals to Networks and Information Security; 2. Introduction to Cybercrime; 3. Classification of Cybercrime; 4. Cybercrime – The Present and the Future; 5. Introduction to Cyber Forensics; 6. Cyber Forensics – The Present and the Future; 7. Introduction to Digital Evidence; 8. Acquisition of Digital Evidence and Handling; 9. Analysis of Digital Evidence; 10. Admissibility of Digital Evidence; 11. Case Studies of Cyber Forensics on Crime Scenes; 12. Introduction to Cyber Law; 13. Cyber Laws in India and Case Studies; 14. International Cyber Laws and Case Studies

About the Authors:

Dejey, *Asst Professor, Dept of CSE, Anna University Tirunelveli Regional Centre, Tirunelveli, Tamil Nadu.*

S Murugan, *IPS, Joint Director and Inspector General of Police, Vigilance and Anticorruption, Chennai.*

PlaceMentor

Tests of Aptitude for Placement Readiness

9780199488780
₹ 850.00
480 Pages
July 2018
Paperback
Indian Original
Author: ***Ram***

Key Features:

- Addresses all key skills required for gaining success in campus recruitment tests
- Provides discussion on soft skills for employability covering topics such as body language, handling interviews, GDs, etc.
- Presents a brief overview of each topic along with examples, and plenty of exercise questions for practice with complete solutions at the end of each chapter

Free Online Assessments https://placementor.in

- 40 tests on Quantitative Ability, Logical Reasoning and Verbal Skills
- 10 tests to examine programming skills in C, C++, Java and Python
- 7 comprehensive aptitude tests (mock tests) covering all key skills of general aptitude
- 10 company-specific model tests
- 8 tests modelled according to IBPS and SBI (PO/Clerical)

ONLINE RESOURCES

For Faculty: Chapter on Essay Writing; Chapter on Introduction to Psychometric Assessments; Additional problems

Content: 1. Introduction to Recruitment Process; 2. A Diagnostic Test; 3. Speed Mathematics; 4. Number Properties; 5. Progression; 6. Averages; 7. Percentages; 8. Ratio and Proportions; 9. Clocks; 10. Calendars ; 11. Word Problems; 12. Profit, Loss, and Discounts; 13. Interest Calculation; 14. Mixtures and Solutions; 15. Time and Work; 16. Time, Speed, and Distance; 17. Probability; 18. Permutations and Combinations; 19. Set Theory; 20. Logarithms; 21. Indices; 22. Mensuration; 23. Data Arrangement; 24. Ordering, Grading, and Ranking; 25. Selection Decision Table; 26. Sequences and Series; 27. Odd Man Out; 28. Direction Sense; 29. Coding-Decoding; 30. Defined Operations; 31. Crypto Arithmetic; 32. Syllogisms; 33. Logical Sequence of Words; 34. Sequential Output Tracing; 35. Cube Problems; 36. Magic Squares; 37. Sudoku and Futoshiki; 38. Visual Reasoning; 39. Puzzles and Brainteasers; 40. Data Sufficiency; 41. Data Interpretation; 42. Synonyms and Antonyms; 43. Confusing Words; 44. Idioms and Phrases; 45. Sentence Completion; 46. Spellings; 47. Grammar Rules; 48. Reading Comprehension; 49. Verbal Logic (Analogies, Parajumbles, and Critical Reasoning; 50. Essay Writing; 51. Resume; 52. Group Discussions; 53. Interviews

About the Author:

Archana Ram *is the co-founder of SMART Training Resources Pvt. Ltd, Chennai.*

PRICE LIST

COMPUTER SCIENCE ENGINEERING

ISBN	Author	Title	INR Price	Currency	eBook
9780190124083	ABHISHEK SHRIRAM KARTHICK	DATA STRUCTURES USING PYTHON	595	INR	Available
9780198082163	BINTU HARWANI	UNIX AND SHELL PROGRAMMING	1150	INR	Available
9780198071068	C.K. NAGPAL	FORMAL LANGUAGES AND AUTOMATA THEORY	675	INR	Available
9780199465873	CHAUHAN	SOFTWARE TESTING, 2E	925	INR	Available
9780195694840	DEEPAK JAIN	SOFTWARE ENGINEERING - PRINCIPLES AND PRACTICES	995	INR	-
9780199489442	DEJEY	CYBER FORENSICS	995	INR	Available
9780198065289	DEY AND GHOSH	PROGRAMMING IN C, 2E	695	INR	Available
9780198084563	DEY AND GHOSH	COMPUTER FUNDAMENTALS and PROGRAMMING IN C, 2E	900	INR	Available
9780199452798	DHAMI & BISHT	DISCRETE MATHEMATICS	1050	INR	Available
9780199456666	HARSH BHASIN	ALGORITHMS: DESIGN AND ANALYSIS	1300	INR	Available
9780198066644	K. MUNEESWARAN	COMPILER DESIGN	1195	INR	Available
9780199484140	MALHOTRA	PROGRAMMING IN JAVA REVISED 2E	950	INR	Available
9780199455423	N.P. PADHY AND S.P. SIMON	SOFT COMPUTING WITH MATLAB PROGRAMMING	1250	INR	Available
9780198082873	NARESH CHAUHAN	PRINCIPLES OF OPERATING SYSTEMS	1250	INR	Available
9780195671544	PADHY, N.P.	ARTIFICIAL INTELLIGENCE & INTELLIGENT SYSTEMS	950	INR	-
9780195676853	RAJJAN SHINGHAL	PATTERN RECOGNITION: TECHNIQUES AND APPLICATIONS	750	INR	Available
9780199455416	RAJKAMAL	MOBILE COMPUTING, 3E	1100	INR	Available
9789354977190	REEMA THAREJA	DATA STRUCTURES 3E	725	INR	Available
9780195699616	REEMA THAREJA	DATA WAREHOUSING	900	INR	Available
9789354977893	REEMA THAREJA	COMPUTER FUNDAMENTALS AND PROGRAMMING IN C 3E	765	INR	Available
9780199485673	REEMA THAREJA	OBJECT ORIENTED PROGRAMMING IN C++ (1'st Revised Editon)	795	INR	Available

ISBN	Author	Title	INR Price	Currency	eBook
9789354979453	REEMA THAREJA	PROGRAMMING IN C 3E	750	INR	Available
9780190126551	REEMA THAREJA	PROGRAMMING IN C (AU) FIRST REVISED EDITION	575	INR	
9789354973765	REEMA THAREJA	PYTHON PROGRAMMING: USING PROBLEM SOLVING APPROACH 2E	625	INR	Available
9780199459353	S SRIDHAR	DIGITAL IMAGE PROCESSING 2ND EDITION	1350	INR	Available
9789354977886	S SRIDHAR	DESIGN AND ANALYSIS OF ALGORITHMS 2E	1030	INR	Available
9780198065432	S. CHAKRABORTY, B.K. SARKAR	DISCRETE MATHEMATICS	1050	INR	Available
9780198096191	SAMIT BHATTACHARYA	COMPUTER GRAPHICS	750	INR	Available
9780199466597	SENTHIL	MICROPROCESSORS AND MICROCONTROLLERS, 2E	1200	INR	Available
9780198079064	SENTHIL KUMAR	MICROPROCESSORS AND INTERFACING	1200	INR	Available
9780199459643	SETH & JUNEJA	JAVA: ONE STEP AHEAD	1150	INR	Available
9780199477388	SHAILENDRA SINGH	CLOUD COMPUTING	715	INR	Available
9780199459353	SRIDHAR	DIGITAL IMAGE PROCESSING, 2E	1350	INR	Available
9780190127275	SRIDHAR	MACHINE LEARNING	710	INR	Available
9780198070887	SRIMANTA PAL	SYSTEMS PROGRAMMING	1250	INR	Available
9780195696561	SUBHAJIT DATTA	SOFTWARE ENGINEERING: CONCEPTS AND APPLICATIONS	995	INR	Available
9780199497225	SUDHA SADASIVAM AND R. THIRUMAHAL	BIG DATA ANALYTICS	825	INR	Available
9780198093480	SUNITA MAHAJAN AND SEEMA SHAH	DISTRIBUTED COMPUTING 2E	1150	INR	Available
9780190121099	SURYA DURBHA, JYOTI JOGLEKAR	INTERNET OF THINGS	675	INR	Available
9780199455508	UTTAM ROY	ADVANCED JAVA PROGRAMMING	1295	INR	Available
9780198066224	UTTAM ROY	WEB TECHNOLOGIES	1099	INR	-
9780198066231	VARSHA H. PATIL	DATA STRUCTURES USING C++	1500	INR	Available
9780195686289	VIKRAM PUDI	DATA MINING	920	INR	Available
9780198084587	VIVEK KULKARNI	THEORY OF COMPUTATION	1000	INR	Available

9780199480357	K.G. SRINIVASA, G.M. SIDDESH, CHETAN SHETTY & SOWMYA B.J.	STATISTICAL PROGRAMMING IN R	715	INR	Available
9780198065302	SOURAV SAHAY	OBJECT ORIENTED PROGRAMMING WITH C++	850	INR	Available

ELECTRICAL/ ELECTRONICS ENGINEERING

ISBN	Author	Title	INR Price	Currency	eBook
9780198072447	AGAM KUMAR TYAGI	MATLAB AND SIMULINK FOR ENGINEERS	895	INR	Available
9780195676877	ALOKE DUTTA	SEMICONDUCTOR DEVICES AND CIRCUITS	1500	INR	Available
9780195693409	BELL	ELECTRONIC DEVICES AND CIRCUITS, 5E	985	INR	-
9780199470679	BHALJA, MAHESHWARI, CHOTHANI	PROTECTION AND SWITCHGEAR 2/E	1050	INR	Available
9780199455997	BHUSHAN TRIVEDI	DATA COMMUNICATIONS AND NETWORKS	1350	INR	Available
9780198086895	BOBROW	FOUNDATIONS OF ELECTRICAL ENGINEERING (ASIAN EDITION)	1050	INR	
9780198084570	D.K. BHATTACHARYA & RAJNISH SHARMA	SOLID STATE ELECTRONIC DEVICES 2E	1050	INR	Available
9780199475001	DALAL AND SHUKLA	WIRELESS AND MOBILE COMMUNICATION	1150	INR	Available
9780195694284	DAVID A. BELL	ELECTRIC CIRCUITS, 7E	1750	INR	-
9780195696134	DAVID A. BELL	BELL:OPERATIONAL AMPLIFIERS AND LINEAR ICs, 3/E	895	INR	-
9780199457052	DAVID A. BELL	PULSE, SWITCHING AND DIGITAL CIRCUITS 5E	995	INR	-
9780198093299	DEBAPRASAD DAS	VHDL: DESIGN, SYNTHESIS, AND SIMULATION	1100	INR	Available
9780198094869	DEBAPRASAD DAS	VLSI DESIGN 2E	1850	INR	Available
9780195669305	KHARE, R.P.	FIBER OPTICS AND OPTOELECTRONICS	750	INR	Available
9780199476282	LATHI	MODERN DIGITAL AND ANALOG COMMUNICATION SYSTEMS 4E	1050	INR	Available
9780198063155	LAXMIDHAR BEHERA, INDRANI KAR	INTELLIGENT SYSTEMS AND CONTROL: PRINCIPLES AND APPLICATIONS	995	INR	-
9780198061878	M S SUKHIJA AND T K NAGSARKAR	CIRCUITS & NETWORKS: ANALYSIS, DESIGN, AND SYNTHESIS	1550	INR	Available
9780199460922	M.S. SUKHIJA AND T.K. NAGSARKAR	CIRCUITS AND NETWORKS 2E	1500	INR	Available
9780199491483	NAGSARKAR & SUKHIJA	PRINCIPLES OF BASIC ELECTRICAL ENGINNEERING (AICTE)	825	INR	Available

ISBN	Author	Title	INR Price	Currency	eBook
9780199472635	PURKAIT	ELECTRICAL MACHINES	1550	INR	Available
9780198087229	R N MUTAGI	DIGITAL COMMUNICATION: THEORY, TECHNIQUES, AND APPLICATIONS 2E	1350	INR	Available
9780199452804	R N MUTAGI	SATELLITE COMMUNICATION	1100	INR	Available
9780195670011	RAMAKALYAN, A.	LINEAR CIRCUITS	1200	INR	Available
9780198081937	RAWAT	DIGITAL SIGNAL PROCESSING	1250	INR	Available
9780199456789	RISAL SINGH AND SHIPRA MITAL GUPTA	INTRODUCTION TO NANOTECHNOLOGY	1100	INR	Available
9780199461851	SADIKU AND KULKARNI	PRINCIPLES OF ELECTROMAGNETICS, 6E	1200	INR	-
9780199488681	SALIVAHANAN	DIGITAL CIRCUITS AND DESIGN 5E	895	INR	Available
9780198063575	SATISH SHAH	8051 MICROCONTROLLERS: MCS 51 FAMILY AND ITS VARIANTS	1150	INR	Available
9780199476299	SEDRA	MICROELECTRONIC CIRCUITS: THEORY AND APPLICATIONS 7E (IA)	1125	INR	Available
9780199465002	SRIVASTAVA & RAJARAMAN	PROJECT AND INFRASTRUCTURE FINANCE	895	INR	Available
9780198077947	SUNIL BHOOSHAN	FUNDAMENTALS OF ENGINEERING ELECTROMAGNETICS	1050	INR	Available
9780195693348	SUREKHA BHANOT	PROCESS CONTROL: PRINCIPLES AND APPLICATIONS	895	INR	Available
9780198096337	T.K. NAGSARKAR & M.S. SUKHIJA	POWER SYSTEM ANALYSIS 2E	1350	INR	Available
9780198066798	TARUN RAWAT	SIGNALS AND SYSTEMS	2550	INR	Available
9780198060666	UPENA DALAL	WIRELESS COMMUNICATION	1250	INR	Available
9780198098881	UPENA DALAL	WIRELESS COMMUNICATION NETWORKS	1000	INR	Available
9780198078050	V CHANDRA SEKAR	COMMUNICATION SYSTEMS	1500	INR	Available
9780198061854	V. CHANDRA SEKAR	ANALOG COMMUNICATION	995	INR	Available
ENGINEERING GENERAL					
9780199452811	BHATTACHARYA and TANDON	ENGINEERING PHYSICS	915	INR	Available
9780198096320	BHATTACHARYYA	ENGINEERING MECHANICS, 2E	775	INR	Available

ISBN	Author	Title	INR Price	Currency	eBook
9780199491476	DEY & GHOSH	PROGRAMMING IN C (AICTE)	785	INR	-
9780199498741	G K SURAISH KUMAR	BIOLOGY FOR ENGINEERS	495	INR	Available
9780199457069	KUMAR AND PUSHPLATA	COMMUNICATION SKILLS, 2E	745	INR	Available
9780199488803	KUMAR AND PUSHPLATA	COMMUNICATION SKILLS: A WORKBOOK	395	INR	Available
9780199491360	KUMAR AND PUSHPLATA	ENGLISH LANGUAGE & COMMUNICATION SKILLS FOR ENGINEERS (AICTE)	625	INR	Available
9780198081807	M.S. SUKHIJA AND T.K. NAGSARKAR	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	1500	INR	Available
9780195682915	MITRA, BARUN	EFFECTIVE TECHNICAL COMMUNICATION: A GUIDE FOR SCIENTISTS AND ENGINEERS	495	INR	Available
9780199479368	MS SUKHIJA & TK NAGSARKAR	BASIC ELECTRICAL ENGINEERING 3RD EDN	1050	INR	Available
9780199455393	N.S. PARTHASARATHY AND VELA MURALI	ENGINEERING DRAWING	1250	INR	Available
9780198081807	NAGSARKAR and SUKHIJA	BASIC ELECTRICAL and ELECTRONICS ENGINEERING	1500	INR	Available
9780198070894	PAL AND BHUNIA	ENGINEERING MATHEMATICS	2250	INR	Available
9780199496662	PAYAL JOSHI AND SHASHANK DEEP	ENGINEERING CHEMISTRY	1200	INR	Available
9789354978944	RAJAGOPALAN	ENVIRONMENTAL STUDIES 4E	550	INR	Available
9780195693485	RAJESH SRIVASTAVA, SAUMYEN GUHA	NUMERICAL METHODS: FOR ENGINEERING AND SCIENCE	1350	INR	Available
9789354972256	RAMAN and SHARMA	TECHNICAL COMMUNICATION, 4E	745	INR	Available
9780199499274	REEMA THAREJA	FUNDAMENTALS OF COMPUTERS 2E	495	INR	Available
9780199452057	REEMA THAREJA	INTRODUCTION TO C PROGRAMMING 2E	995	INR	Available
9780199492282	REEMA THAREJA	PROGRAMMING IN C (AICTE)	699	INR	-
9780199475070	SUBRAMANIAN	PROFESSIONAL ETHICS, 2E	745	INR	Available
SOFT SKILLS					
9789354978371	BARUN MITRA	PERSONALITY DEVELOPMENT AND SOFT SKILLS, 3E	500	INR	Available
9780199488780	ARCHANA RAM	PLACEMENTOR: TESTS OF APTITUDE FOR PLACEMENT READINESS	850	INR	Available

Prices are subject to change without prior notice.

OXFORD
UNIVERSITY PRESS

NORTH

Corporate Office:
World Trade Tower, 12th Floor, C-1, Sector 16, Main DND Road,
Rajnigandha Chauk, Noida—201301
Phone: 0120 - 4576570/4277306

SOUTH

Regional Office:
289, Anna Salai, Chennai 600 006, Tamil Nadu
Phone: 044-28112107

EAST

Regional Office:
Plot No. A1-5, Block GP, Sector V, Salt Lake, Electronics Complex,
Kolkata 700091, West Bengal
Phone: 033-40183700

www.india.oup.com

https://www.linkedin.com/company/oxford-university-press-india/

https://www.facebook.com/OUPIndia

https://www.youtube.com/user/OUPIndia

https://www.instagram.com/oxforduniversitypressin/