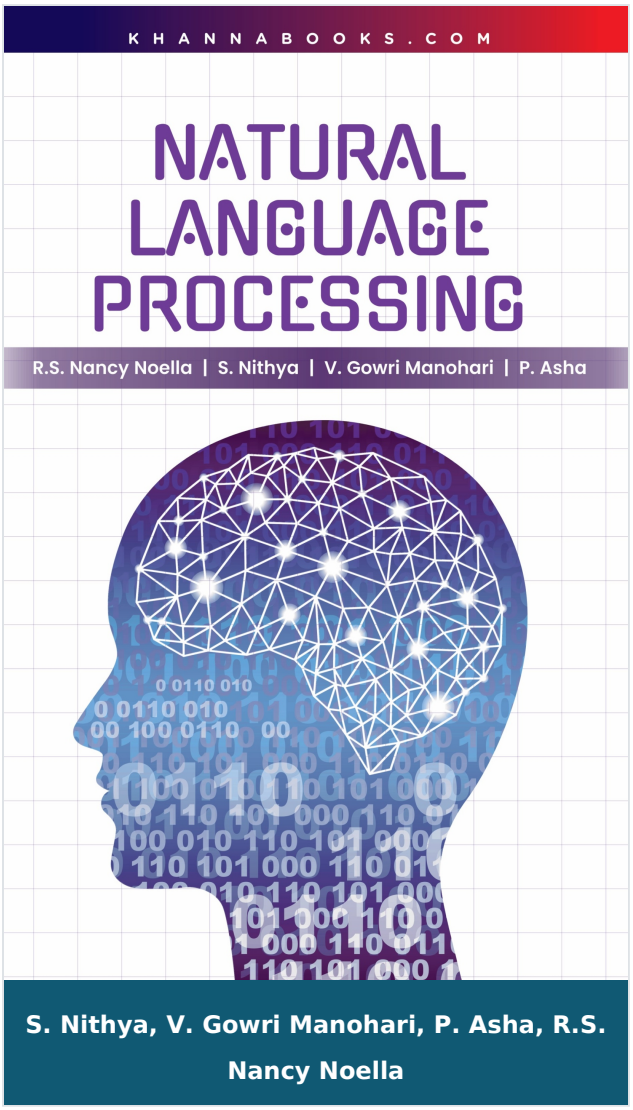


Natural Language Processing

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Product Description

This comprehensive text is an essential guide to the rapidly evolving field of Natural Language Processing (NLP), which sits at the dynamic intersection of linguistics, computer science, and artificial intelligence. The core theme is mastering the ability for computers to understand, interpret, and generate human language, a capability that powers modern AI applications from virtual assistants and machine translation to sentiment analysis and chatbots.

Designed to be a balanced and holistic resource, the book successfully bridges the critical gap between theoretical foundations and practical implementation. It systematically covers fundamental concepts like text preprocessing, tokenization, and language modeling, ensuring readers build a strong conceptual base. The practical value lies in its commitment to demystifying complex concepts, providing readers with the necessary tools to build, optimize, and deploy robust NLP systems effectively.

The text offers in-depth coverage of state-of-the-art architectures like transformers, BERT, and GPT, complemented by practical, hands-on examples using industry-standard frameworks such as PyTorch, TensorFlow, and Hugging Face. Furthermore, it extensively covers the entire phases of NLP—from lexical and syntactic processing to semantic interpretation and discourse analysis—ensuring a thorough understanding of the whole pipeline. The primary audience for this text is students seeking foundational knowledge, researchers looking to refine their expertise, and practitioners aiming to implement real-world NLP solutions. It is an indispensable resource for anyone dedicated to exploring and innovating in this exciting and interdisciplinary domain.

Salient Features:

• Foundational Concepts: Provides clear explanations of core NLP techniques, including tokenization, embedding, and language modeling, covering the phases of NLP from

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lexical to pragmatic analysis.

• State-of-the-Art Models: Includes in-depth coverage of current advancements, exploring transformer architectures, BERT, GPT, and other cutting-edge, highly efficient models for language tasks.

• Hands-on Implementation: Offers practical, hands-on examples using popular industry frameworks such as PyTorch, TensorFlow, and the Hugging Face library for real-world development.

• Syntactic-Semantic Pipeline: Explores the key NLP phases of syntactic parsing and semantic interpretation, including grammar, ambiguity resolution, and the use of Logical Forms.

• Context and Discourse: Dedicated coverage of World Knowledge and Discourse Structure, including knowledge representation techniques and the analysis of coherence and reference resolution.

• Real-World Applications: Features case studies and projects demonstrating the practical deployment of NLP in industry, covering applications like machine translation and sentiment analysis.

• Parsing & Grammar: Delves into advanced parsing techniques, including Probabilistic Parsing, Feature Structures, Augmented Grammars, and the Symbolic Approach to computation.

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- Semantic Interpretation
- Context and World Knowledge
- Natural Language Discourse Structure

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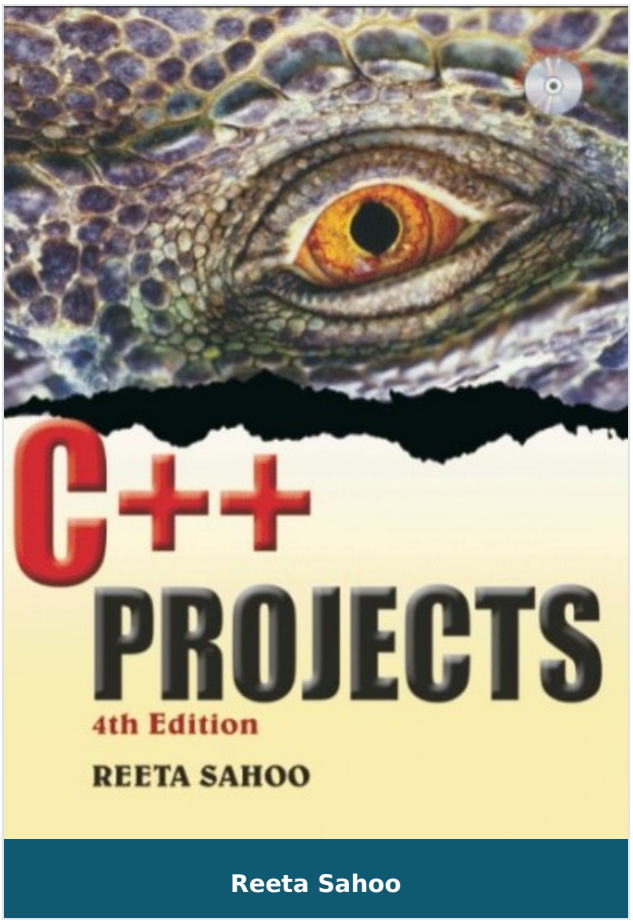
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Reeta Sahoo

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There are 14 different project are given in the CD. All project are graded in different manner including different C++ functions and graphic commands. Those who have basic understanding about C++ can make easy use of this project book. While for graphics, you have to execute the program file from your graphics driver file (i.e., c:\TC or C\TURBO or and C++ installation directory). This will-organized and comprehensive project book offers a variety of C++ coding for high-end programmers, beginners and developers.

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Author

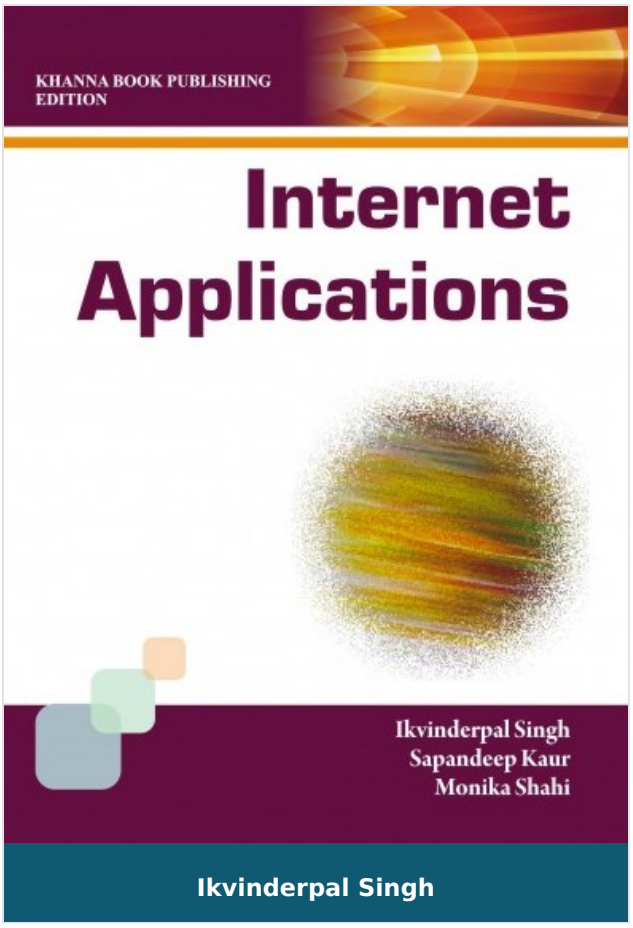
Reeta Sahoo

Reeta Sahoo is an author of various books including, C++, VB, Java. Since last 10 years, she has lots of experience in different computer project works. She has written number of schoolbooks including C++, Visual Basic, Java, etc. This book helps lots to the beginner's who want to develpo programming skill in C++ language.

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Product Description

This book is meant for a wide range of readers, who wish to learn the basic concepts of internet applications. in the book we cover all basic concepts of internet of various Indian Universities in as systematic and simplified manner. While writing this book, it was kept in mind to include only the relevant topics so that it is useful both for learning and reference purpose. Internet application have been introduced from the first principles and discussed in an easy manner, so that a beginner can grasp the concepts of working of internet, E-mail, internet protocols, newsgroup, worldwide web, search engines, internet and extranet, web designing using HTML, DHTML with programming techniques.

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- Cascading Style Sheets (CSS)
- Javascript
- DHTML
- Search Engines
- Intranet & Extranet

Author

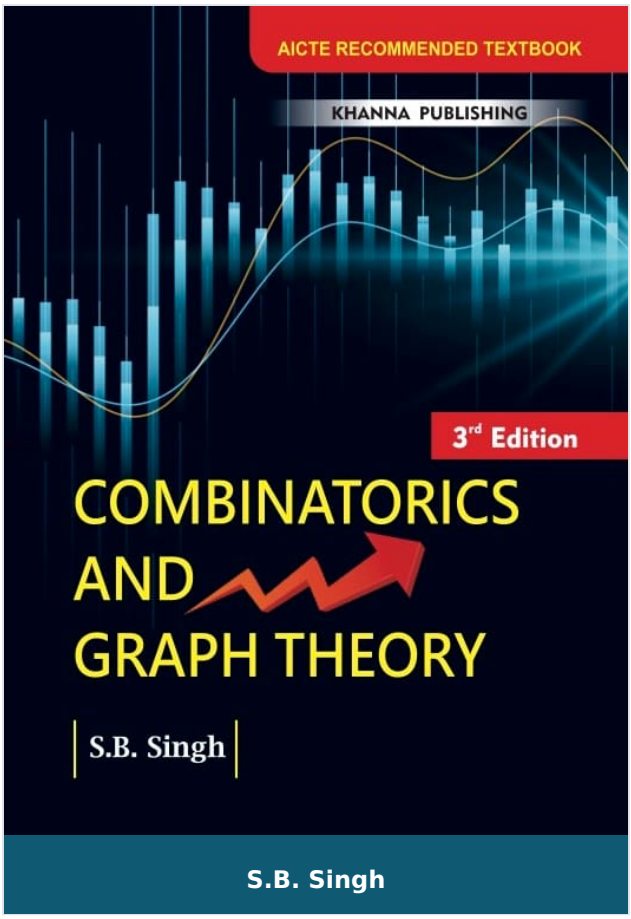
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Dr. Ikvinderpal Singh is an Assistant Professor at Trai Shatabdi Guru Gobind Singh Khalsa college Amritsar, bringing 17+ years of academic leadership and research experience to the field of computer science. A Gold Medalist in B.Sc. IT, with an MCA (Distinction) and a Ph.D. in Neural Networks and Image Processing, he is known for blending rigorous research with practical innovation. A prolific academic creator, he has authored 37 books, published 82+ research papers, and designed 100+ industry-aligned skill-development courses. His expertise extends to doctoral evaluation, supervision, and active participation on 100+ editorial and review boards worldwide.

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S.B. Singh

Combinatorics and Graph Theory

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- Miscellaneous Examples
- Appendix
- Index

Author

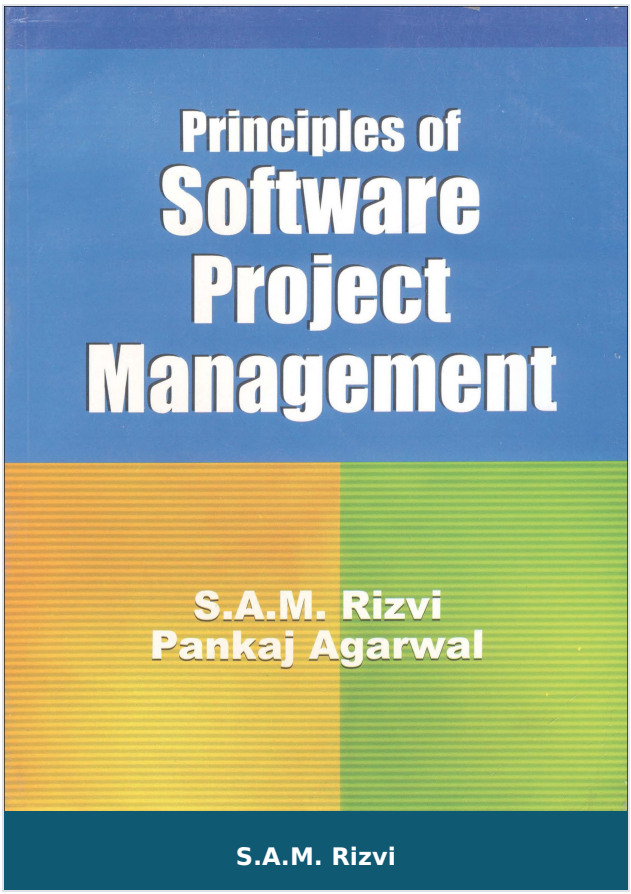
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- Software Quality Assurance
- Software Configuration Management
- MS Project Tutorial

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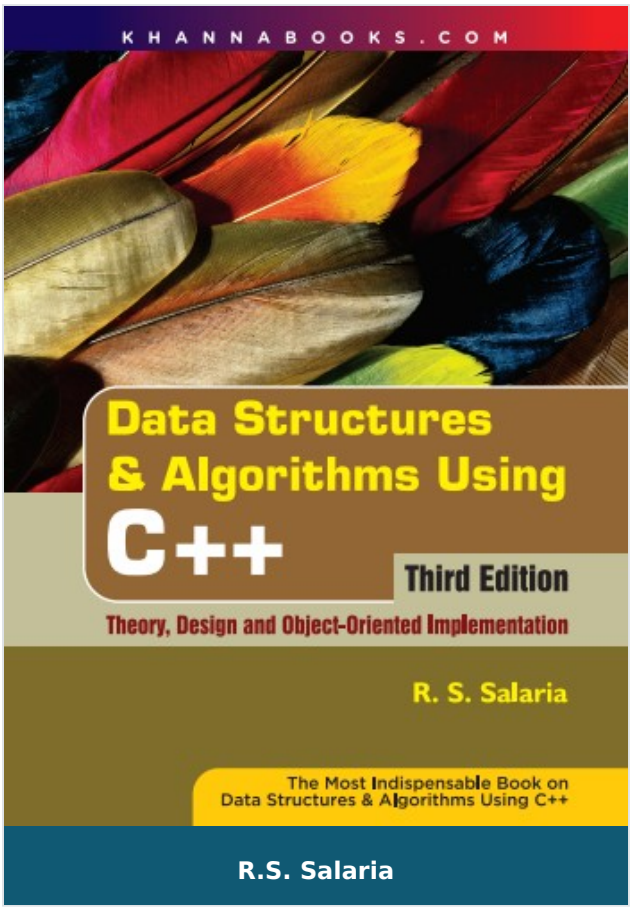
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Author

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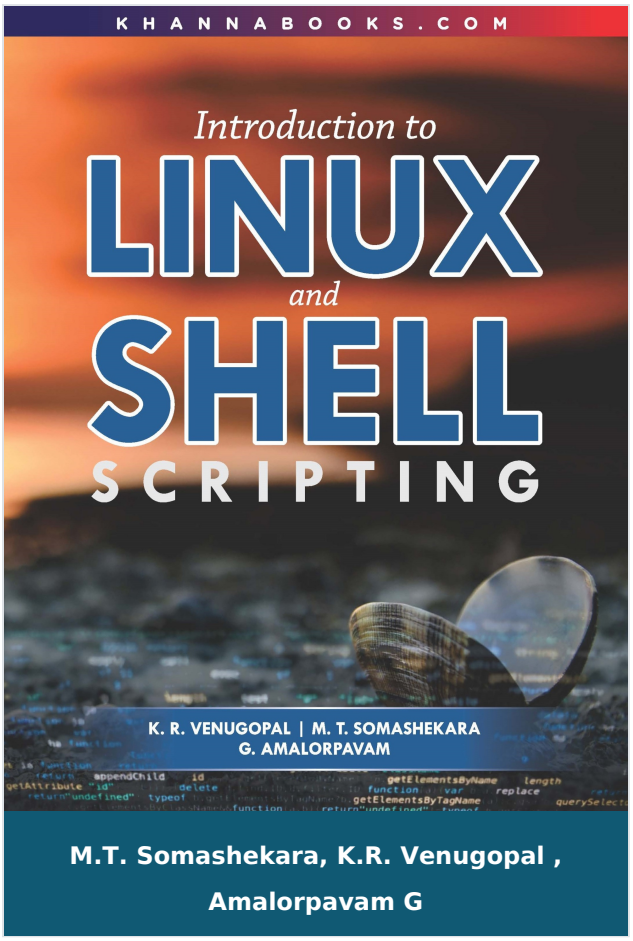
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Introduction to Linux and Shell Scripting

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Product Description

Linux is the most popularly used open-source operating system. Linux Operating system is used in servers, clouds, desktops, laptops, and even in mobiles. Since the usage and popularity of Linux operating systems have increased, the demand for quality and comprehensive Linux Books also has increased. There is a demand for Linux books that are easy to understand, offering more practical examples and covering most of the concepts required for the programmer and the learners. Our book caters to these requirements. A lot of practical examples of all the commands and shell scripts are given. Commands and Shell Scripts are executed using the latest version of Ubuntu Linux. Objective-type questions and solutions are provided at the end of each chapter. We are sure that the readers can enjoy the Linux journey and they will surely gain a grip over the Linux operating system, which in turn provides confidence to them to work with Linux systems and also empowers them to face competitive examinations and interviews. We have focused on students as well as Linux programmers. Our book is easy to understand and more user-friendly. Beginners can follow the book comfortably. We have prepared the table of contents by focusing on most of the reputed universities and autonomous colleges. Our book covers the syllabi of most of Indian universities. It will certainly be useful not only for students of Computer Science and Information Technology but for Linux programmers also.

Salient Features:

1. The book is self-readable, comprehensive and highly informative. It covers the concepts of Linux Operating System and Shell Scripting quite exhaustively.

2. It covers syllabi of B.E., BCA, MCA, BSc of most of the Indian universities. It will certainly be useful not only for students of Computer Science and Information Technology but for the Linux Developers as well.

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3. It certainly gives the necessary skills to the learners to develop any type of application.

The learns can get the necessary skills to work on Linux Servers.

4. Linux commands are explained systematically. Practical examples are given for each and every command. The commands are executed using the latest version of Ubuntu one of the popular Linux Distro.

5. Detailed information is given about how to use text editors such as vi editor and others.

6. It provides comprehensive coverage of the concepts such as Filters, Awk programming, and Linux Stream Editor.

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K.R. Venugopal

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has several research papers to his credit in national and international journals. He is a life member of ISTE CSI, ISCA, and IUPRAI. His areas of academic interest include Data Structures, Algorithms, Programming Languages, Operating Systems, and Databases. His areas of research include Image Processing and Pattern Recognition. K.R. Venugopal K.R. Venugopal is the Vice-Chancellor of Bangalore University. He has an illustrious, distinguished, and brilliant academic career with Eleven degrees including two Ph.Ds, one in Economics from Bangalore University and another Ph.D. in Computer Science and Engineering from IIT Madras. He has served UVCE and Bangalore University for over the last four decades. He received his ME degree in Computer Science Engineering from the Indian Institute of Science, Bangalore, Bachelor of Engineering in Electronics and Communications from UVCE and has also obtained degrees in Law, Journalism, Public Relations, Business Finance, Economics, Industrial Relations, and Communications. He was a Post Doctoral Research Scholar and Visiting Professor at the University of Southern California, USA. He has authored and edited 72 books in Economics and Computer Science published more than 1000 papers in refereed International Conferences and Journals and has been credited with 24 patents. He has established two Engineering colleges and two schools in Bangalore. He has awarded Ph.Ds to 30 students and informally guided more than 150 Research Scholars and supervised more than 700 Post Graduate dissertations in Computer Science and Engineering. He received IEEE Fellow and ACM Distinguished Educator award from the USA for his outstanding contributions to Computer Science and Engineering. Amalorpavam G Amalorpavam G. is with the Department of Computer Science, Sambhram Academy of Management Studies, affiliated to Bangalore University, Bengaluru. She did her MCA from Baharathidasan University and M.Phil from Alagappa University, Tamilnadu. She has 19 years of teaching experience. She has many research papers to her credit in national and international journals. Her areas of academic interest include Software Engineering, Programming Languages, Operating Systems, Relational Database Management Systems, Object-Oriented Analysis and Design and Artificial Intelligence. Her areas of research include Image Processing and

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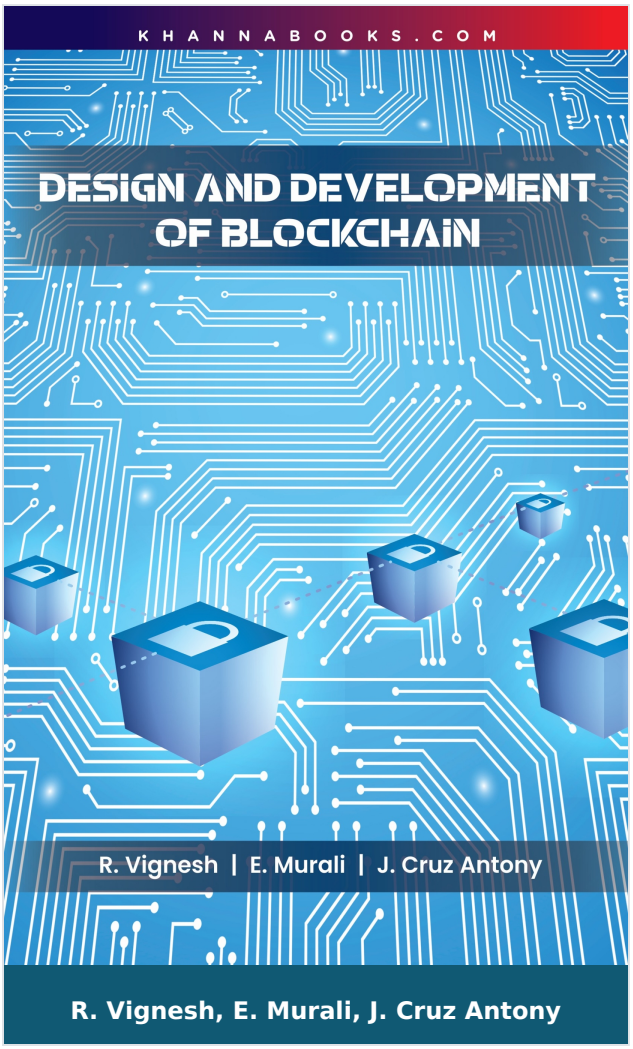
Amalorpavam G

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Design and Development of Blockchain

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Product Description

"Design and Development of Blockchain" offers a comprehensive and practical guide to understanding the fundamentals and applications of blockchain technology. The book bridges the gap between theoretical concepts and hands-on implementation by providing detailed coverage of Distributed Ledger Technology (DLT), consensus mechanisms such as Proof-of-Work (PoW) and Proof-of-Stake (PoS), and the principles of cryptoeconomics. Discussions are grounded in real-world blockchain platforms, including Bitcoin and Ethereum.

The primary objective of the book is to equip readers with both conceptual knowledge and practical skills needed to design, implement, and innovate blockchain solutions. It explains decentralization in depth, covering decentralized computing, storage, and communication systems. The text also explores Smart Contract and Decentralized Application (DApp) development while addressing important industry challenges such as scalability, energy efficiency, and security. Additionally, it examines blockchain integration with Artificial Intelligence (AI), Internet of Things (IoT), and Cloud Computing.

This book serves as a valuable resource for students, researchers, developers, and industry professionals interested in building secure, efficient, and future-ready blockchain-based systems.

Salient Features:

- • Cryptoeconomic Principles: Explores the economic incentives and cryptographic security mechanisms that resolve the Byzantine General's Problem in decentralized P2P networks.

  • Architectural Components: Details the core building blocks of a blockchain, including blocks, hashing, digital signatures, and the structural variations in Bitcoin

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and Ethereum blocks.

• Practical Consensus: Clarifies the operation, advantages, and energy trade-offs of major consensus algorithms, such as Proof-of-Work (PoW), Proof-of-Stake (PoS), and other hybrid models.

• Hands-on Chain Building: Provides a step-by-step guide to developing an independent blockchain, covering P2P network creation, Genesis Blocks, registering miners, and block storage.

• Ethereum Development: Offers practical instruction on setting up the Ethereum environment using developer tools like Ganache and Truffle Suite to create, test, and deploy functional Smart Contracts.

• Decentralization Ecosystem: Focuses on achieving full ecosystem decentralization for computation, storage, and communication, along with developing decentralized applications (DApps) and DAOs.

• Emerging Technology Integration: Delves into the intersection of blockchain with AI, IoT, and Cloud Computing, showcasing how it enhances data integrity, network security, and automation in various sectors.

• Security and Challenges: Addresses key technical and commercial hurdles, including scalability limitations, energy efficiency concerns, regulatory frameworks, and mitigating DDoS and Sybil attacks.

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