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Chanakya Neeti B. K. Chaturvedi 2017-08-30 One of the greatest figures of wisdom and knowledge in the Indian history is Chanakya. Chanakya is regarded as a great thinker and diplomat in India who is traditionally identified as Kautilya or Vishnu Gupta. Originally a professor of economics and political science at the ancient Takshashila University, Chanakya managed the first Maurya Emperor Chandragupta's rise to power at a young age. Instead of acquiring the seat of kingdom for himself, he crowned Chandragupta Maurya as the emperor and served as his chief advisor. Chanakya Neeti is a treatise on the ideal way of life, and shows Chanakya's deep study of the Indian way of life. These practical and powerful strategies provide a path to live an orderly and planned life. If these strategies are followed in any sphere of life, victory is certain. Chanakya also developed Neeti-Sutras (aphorisms ? pithy sentences) that tell people how they should behave. Chanakya used these sutras to groom Chandragupta and other selected disciples in the art of ruling a kingdom. But these sutras are also relevant in this modern age and are very useful for us. For the first time, Chanakya Neeti and Chanakya Sutras are compiled in this book to make Chanakya's invaluable wisdom easily available to the common readers. This book presents Chanakya's powerful strategies and principles in a very lucid manner for the benefit of our valuable readers.

Digital Electronics Anil K. Maini 2007-09-27 The fundamentals and implementation of digital electronics are essential to understanding the design and working of consumer/industrial electronics, communications, embedded systems, computers, security and military equipment. Devices used in applications such as these are constantly decreasing in size and employing more complex technology. It is therefore essential for engineers and students to understand the fundamentals, implementation and application principles of digital electronics, devices and integrated circuits. This is so that they can use the most appropriate and effective technique to suit their technical need. This book provides practical and comprehensive coverage of digital electronics, bringing together information on fundamental theory, operational aspects and potential applications. With worked problems, examples, and review questions for each chapter, Digital Electronics includes: information on number systems, binary codes, digital arithmetic, logic gates and families, and Boolean algebra; an in-depth look at multiplexers, de-multiplexers, devices for arithmetic operations, flip-flops and related devices, counters and registers, and data

conversion circuits; up-to-date coverage of recent application fields, such as programmable logic devices, microprocessors, microcontrollers, digital troubleshooting and digital instrumentation. A comprehensive, must-read book on digital electronics for senior undergraduate and graduate students of electrical, electronics and computer engineering, and a valuable reference book for professionals and researchers.

The Zynq Book Louise H. Crockett 2014 This book is about the Zynq-7000 All Programmable System on Chip, the family of devices from Xilinx that combines an application-grade ARM Cortex-A9 processor with traditional FPGA logic fabric. Catering for both new and experienced readers, it covers fundamental issues in an accessible way, starting with a clear overview of the device architecture, and an introduction to the design tools and processes for developing a Zynq SoC. Later chapters progress to more advanced topics such as embedded systems development, IP block design and operating systems. Maintaining a 'real-world' perspective, the book also compares Zynq with other device alternatives, and considers end-user applications. The Zynq Book is accompanied by a set of practical tutorials hosted on a companion website. These tutorials will guide the reader through first steps with Zynq, following on to a complete, audio-based embedded systems design.

Computer Vision: A Modern Approach David A. Forsyth 2015-01-23 Appropriate for upper-division undergraduate- and graduate-level courses in computer vision found in departments of Computer Science, Computer Engineering and Electrical Engineering. This textbook provides the most complete treatment of modern computer vision methods by two of the leading authorities in the field. This accessible presentation gives both a general view of the entire computer vision enterprise and also offers sufficient detail for students to be able to build useful applications. Students will learn techniques that have proven to be useful by first-hand experience and a wide range of mathematical methods.

Business Ethics Stephen M. Byars 2018-09-24

EDA for IC Implementation, Circuit Design, and Process Technology Luciano Lavagno 2018-10-03 Presenting a comprehensive overview of the design automation algorithms, tools, and methodologies used to design integrated circuits, the *Electronic Design Automation for Integrated Circuits Handbook* is available in two volumes. The second volume, *EDA for IC Implementation, Circuit Design, and Process Technology*, thoroughly examines real-time logic to GDSII (a file format used to transfer data of semiconductor physical layout), analog/mixed signal design, physical verification, and technology CAD (TCAD). Chapters contributed by leading experts authoritatively discuss design for manufacturability at the nanoscale, power supply network design and analysis, design modeling, and much more. Save on the complete set.

Microwave Engineering David M. Pozar 2011-11-22 Pozar's new edition of *Microwave Engineering* includes more material on active circuits, noise, nonlinear effects, and wireless systems. Chapters on noise and nonlinear distortion, and active devices have been added along with the coverage of noise and more material on intermodulation distortion and related nonlinear effects. On active devices, there's more updated material on bipolar junction and field effect transistors. New and updated material on wireless communications systems, including link budget, link margin, digital modulation methods, and bit error rates is also part of the new edition. Other new material includes a section on transients on transmission lines, the theory of power waves, a discussion of higher order modes and frequency effects for microstrip line, and a discussion of how to determine unloaded.

All-in-One Electronics Simplified A.K. Maini, Nakul Maini The *All-in-one Electronics Simplified* is comprehensive treatise on the whole gamut of topics in Electronics in Q & A format. The book is primarily intended for undergraduate students of Electronics

Engineering and covers six major subjects taught at the undergraduate level students of Electronics Engineering and covers six major subjects taught at the undergraduate level including Electronic Devices and Circuits, Network Analysis , Operational Amplifiers and Linear Integrated Circuits, Digital Electronics, Feedback and Control Systems and Measurements and Instrumentation. Each of the thirty chapters is configured as the Q&A part followed by a large number of Solved Problems. A comprehensive Self-Evaluation Exercise comprising multiple choice questions and other forms of objective type exercises concludes each chapter.

India's New Capitalists H. Damodaran 2008-06-25 In order to do business effectively in contemporary South Asia, it is necessary to understand the culture, the ethos, and the region's new trading communities. In tracing the modern-day evolution of business communities in India, this book uses social history to systematically document and understand India's new entrepreneurial groups.

DIGITAL ELECTRONICS: PRINCIPLES AND INTEGRATED CIRCUITS Anil K. Maini 2007
Market_Desc: · Undergraduate and graduate level students of different universities
Special Features: · Each chapter in the book, whether it is related to operational fundamentals or applications, is amply illustrated with diagrams and design examples· Each chapter concludes in a comprehensive self-evaluation exercise comprising multiple-choice questions (with answers) and other type of objective type questions (with answers)· Unlike most of the books in print on the subject that are either too brief, lacking in illustrated examples and examination-oriented study material, or too voluminous, containing lot of redundant material, the book has been written keeping in mind the topics taught in the subject and covers in entirety what is required by undergraduate and graduate level students of engineering in electrical, electronics, instrumentation and control, computer science and information technology disciplines
About The Book: Digital Electronics is a precise and yet complete book covering both Digital Electronics Fundamentals and Integrated Circuits. This book provides practical and comprehensive coverage of digital electronics, bringing together information on fundamental theory, operational aspects and potential applications. Each chapter in the book is amply illustrated with diagrams and design examples. Each chapter concludes in a comprehensive self-evaluation exercise comprising multiple-choice and objective type questions (with answers). The book has up-to-date coverage of recent application fields, such as programmable logic devices, microprocessors, and microcontrollers. This valuable reference book provides in-depth information about multiplexers, de-multiplexers, devices for arithmetic operations, flip-flops and related devices, counters and registers, and data conversion circuits.

Digital Electronics G. K. Kharate 2012-07-12 Digital Electronics is specially designed as a textbook for the undergraduate students of Electronics, Communication, Computer Science, Electrical and Instrumentation Engineering for their introductory course on digital electronics or digital system and design.

Modern Digital Electronics R. P. Jain 1997

Fundamentals of 5G Mobile Networks Jonathan Rodriguez 2015-06-22 Fundamentals of 5G Mobile Networks provides an overview of the key features of the 5th Generation (5G) mobile networks, discussing the motivation for 5G and the main challenges in developing this new technology. This book provides an insight into the key areas of research that will define this new system technology paving the path towards future research and development. The book is multi-disciplinary in nature, and aims to cover a whole host of intertwined subjects that will predominantly influence the 5G landscape, including Future Internet, cloud computing, small cells and self-organizing networks (SONs), cooperative communications, dynamic spectrum management and cognitive radio, Broadcast-Broadband convergence, 5G security challenge, and green RF. The book aims to be the

first of its kind towards painting a holistic perspective on 5G Mobile, allowing 5G stakeholders to capture key technology trends on different layering domains and to identify potential inter-disciplinary design aspects that need to be solved in order to deliver a 5G Mobile system that operates seamlessly as a piece of the 5G networking jigsaw. Key features:

- Addresses the fundamentals of 5G mobile networks serving as a useful study guide for mobile researchers and system engineers aiming to position their research in this fast evolving arena.
- Develops the Small cells story together with next generation SON (self-organizing networks) systems as solutions for addressing the unprecedented traffic demand and variations across cells.
- Elaborates Mobile Cloud technology and Services for future communication platforms, acting as a source of inspiration for corporations looking for new business models to harness the 5G wave.
- Discusses the open issues facing broad scale commercial deployment of white space networks, including the potential for applications towards the future 5G standard.
- Provides a scientific assessment for broadcast and mobile broadband convergence coupled together with a 'win-win' convergence solution to harmonize the broadcasting and mobile industry.
- Describes the key components, trends and challenges, as well as the system requirements for 5G transceivers to support multi standard radio, a source of inspiration for RF engineers and vendors to tie down the requirements and potential solutions for next generation handsets.

Digital Economy Harbhajan S. Kehal 2005-01-01 Annotation Digital Economy provides information about the socioeconomic aspects of the digital economy. This set of eighteen essays covers the effects of digital economy on business transactions, technology and culture, as well as on education. It also covers various aspects of global production, trade, and investment and the effects of the Internet.

Computer Networks Larry L. Peterson 2011-03-02 Computer Networks: A Systems Approach, Fifth Edition, explores the key principles of computer networking, with examples drawn from the real world of network and protocol design. Using the Internet as the primary example, this best-selling and classic textbook explains various protocols and networking technologies. The systems-oriented approach encourages students to think about how individual network components fit into a larger, complex system of interactions. This book has a completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, network security, and network applications such as e-mail and the Web, IP telephony and video streaming, and peer-to-peer file sharing. There is now increased focus on application layer issues where innovative and exciting research and design is currently the center of attention. Other topics include network design and architecture; the ways users can connect to a network; the concepts of switching, routing, and internetworking; end-to-end protocols; congestion control and resource allocation; and end-to-end data. Each chapter includes a problem statement, which introduces issues to be examined; shaded sidebars that elaborate on a topic or introduce a related advanced topic; What's Next? discussions that deal with emerging issues in research, the commercial world, or society; and exercises. This book is written for graduate or upper-division undergraduate classes in computer networking. It will also be useful for industry professionals retraining for network-related assignments, as well as for network practitioners seeking to understand the workings of network protocols and the big picture of networking. Completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, security, and applications Increased focus on application layer issues where innovative and exciting research and design is currently the center of attention Free downloadable network simulation software and lab experiments manual available

A Textbook of Applied Electronics RS Sedha 2008-02 The present book has been thoroughly revised and lot of useful material has been added .several photographs of electronic devices and their specifications sheets have been included.This will help the students to have a better understanding of the electronic devices and circuits from application point of view.the mistake and misprints,which has crept in,have been eliminated in this edition.

Digital and Social Media Marketing Nripendra P. Rana 2019-11-11 This book examines issues and implications of digital and social media marketing for emerging markets. These markets necessitate substantial adaptations of developed theories and approaches employed in the Western world. The book investigates problems specific to emerging markets, while identifying new theoretical constructs and practical applications of digital marketing. It addresses topics such as electronic word of mouth (eWOM), demographic differences in digital marketing, mobile marketing, search engine advertising, among others. A radical increase in both temporal and geographical reach is empowering consumers to exert influence on brands, products, and services. Information and Communication Technologies (ICTs) and digital media are having a significant impact on the way people communicate and fulfil their socio-economic, emotional and material needs. These technologies are also being harnessed by businesses for various purposes including distribution and selling of goods, retailing of consumer services, customer relationship management, and influencing consumer behaviour by employing digital marketing practices. This book considers this, as it examines the practice and research related to digital and social media marketing.

SWITCHING THEORY AND LOGIC DESIGN A. ANAND KUMAR 2014-03-06 This comprehensive text on switching theory and logic design is designed for the undergraduate students of electronics and communication engineering, electrical and electronics engineering, electronics and instrumentation engineering, telecommunication engineering, computer science and engineering, and information technology. It will also be useful to AMIE, IETE and diploma students. Written in a student-friendly style, this book, now in its Second Edition, provides an in-depth knowledge of switching theory and the design techniques of digital circuits. Striking a balance between theory and practice, it covers topics ranging from number systems, binary codes, logic gates and Boolean algebra to minimization using K-maps and tabular method, design of combinational logic circuits, synchronous and asynchronous sequential circuits, and algorithmic state machines. The book discusses threshold gates and programmable logic devices (PLDs). In addition, it elaborates on flip-flops and shift registers. Each chapter includes several fully worked-out examples so that the students get a thorough grounding in related design concepts. Short questions with answers, review questions, fill in the blanks, multiple choice questions and problems are provided at the end of each chapter. These help the students test their level of understanding of the subject and prepare for examinations confidently. NEW TO THIS EDITION • VHDL programs at the end of each chapter • Complete answers with figures • Several new problems with answers

Facts Controllers in Power Transmission and Distribution K. R. Padiyar 2009-01-01 The emerging technology of Flexible AC Transmission System (FACTS) enables planning and operation of power systems at minimum costs, without compromising security. This is based on modern high power electronic systems that provide fast controllability to ensure 'flexible' operation under changing system conditions. This book presents a comprehensive treatment of the subject by discussing the operating principles, mathematical models, control design and issues that affect the applications. The concepts are explained often with illustrative examples and case studies. In particular, the book presents an in-depth coverage of: Applications of SVC, TCSC, GCSC, SPST, STATCOM, SSSC, UPFC, IPFC and IPC for voltage/power control in transmission systems; Application of

DSTATCOM, DVR and UPQC for improving power quality in distribution systems; Design of Power Oscillation Damping (POD) controllers; Discrete control of FACTS for improving transient stability; Mitigation of SSR using series FACTS Controllers; Issues affecting control design such as electromagnetic and harmonic interactions. The book can serve as a text or reference for a course on FACTS Controllers. It will also benefit researchers and practicing engineers who wish to understand and apply FACTS technology.

PULSE AND DIGITAL CIRCUITS A. ANAND KUMAR 2008-02-12 The second edition of this well-received text continues to provide a coherent and comprehensive coverage of Pulse and Digital Circuits, suitable as a textbook for use by undergraduate students pursuing courses in Electrical and Electronics Engineering, Electronics and Communication Engineering, Electronics and Instrumentation Engineering, and Telecommunication Engineering. It presents clear explanations of the operation and analysis of semiconductor pulse circuits. Practical pulse circuit design methods are investigated in detail. The book provides numerous fully worked-out, laboratory-tested examples to give students a solid grounding in the related design concepts. It includes a number of classroom-tested problems to encourage students to apply theory in a logical fashion. Review questions, fill in the blanks, and multiple choice questions offer the students the opportunity to test their understanding of the text material. This text will be also appropriate for self-study by AMIE and IETE students. NEW TO THIS EDITION : • Includes two new chapters—Logic Gates and Logic Families—to meet the curriculum requirements. • Provides short questions with answers at the end of each chapter. • Presents several new illustrations, examples and exercises

Digital Circuits And Design, 3E Arivazhagan S Salivahanan 2009-11 The Use Of Digital Circuits Is Increasing In All Disciplines Of Engineering. Consequently Students Need To Have An In-Depth Knowledge On Them. Digital Circuits And Design Is A Textbook Dealing With The Basics Of Digital Technology Including The Design Asp

Digital Electronics William H. Gothmann 1982-01-01

Software Testing and Quality Assurance Kshirasagar Naik 2011-09-23 A superior primer on software testing and quality assurance, from integration to execution and automation This important new work fills the pressing need for a user-friendly text that aims to provide software engineers, software quality professionals, software developers, and students with the fundamental developments in testing theory and common testing practices. Software Testing and Quality Assurance: Theory and Practice equips readers with a solid understanding of: Practices that support the production of quality software Software testing techniques Life-cycle models for requirements, defects, test cases, and test results Process models for units, integration, system, and acceptance testing How to build test teams, including recruiting and retaining test engineers Quality Models, Capability Maturity Model, Testing Maturity Model, and Test Process Improvement Model Expertly balancing theory with practice, and complemented with an abundance of pedagogical tools, including test questions, examples, teaching suggestions, and chapter summaries, this book is a valuable, self-contained tool for professionals and an ideal introductory text for courses in software testing, quality assurance, and software engineering.

Textbook of Applied Aeronautic Engineering Henry Woodhouse 1920

Digital Computer Electronics Albert P. Malvino 1990-07-01

Optical Fiber Communications John M. Senior 2009 This text succeeds in giving a practical introduction to the fundamentals, problems and techniques of the design and utilisation of optical fiber systems. This edition retains all core features, while incorporating recent improvements and developments in the field.

TCP/IP Illustrated, Volume 1 Kevin R. Fall 2011-11-08 "For an engineer determined to refine and secure Internet operation or to explore alternative solutions to persistent

problems, the insights provided by this book will be invaluable.” —Vint Cerf, Internet pioneer *TCP/IP Illustrated, Volume 1, Second Edition*, is a detailed and visual guide to today’s TCP/IP protocol suite. Fully updated for the newest innovations, it demonstrates each protocol in action through realistic examples from modern Linux, Windows, and Mac OS environments. There’s no better way to discover why TCP/IP works as it does, how it reacts to common conditions, and how to apply it in your own applications and networks. Building on the late W. Richard Stevens’ classic first edition, author Kevin R. Fall adds his cutting-edge experience as a leader in TCP/IP protocol research, updating the book to fully reflect the latest protocols and best practices. He first introduces TCP/IP’s core goals and architectural concepts, showing how they can robustly connect diverse networks and support multiple services running concurrently. Next, he carefully explains Internet addressing in both IPv4 and IPv6 networks. Then, he walks through TCP/IP’s structure and function from the bottom up: from link layer protocols—such as Ethernet and Wi-Fi—through network, transport, and application layers. Fall thoroughly introduces ARP, DHCP, NAT, firewalls, ICMPv4/ICMPv6, broadcasting, multicasting, UDP, DNS, and much more. He offers extensive coverage of reliable transport and TCP, including connection management, timeout, retransmission, interactive data flow, and congestion control. Finally, he introduces the basics of security and cryptography, and illuminates the crucial modern protocols for protecting security and privacy, including EAP, IPsec, TLS, DNSSEC, and DKIM. Whatever your TCP/IP experience, this book will help you gain a deeper, more intuitive understanding of the entire protocol suite so you can build better applications and run more reliable, efficient networks.

Logistics 4.0 Turan Paksoy 2020-12-18 Industrial revolutions have impacted both, manufacturing and service. From the steam engine to digital automated production, the industrial revolutions have conducted significant changes in operations and supply chain management (SCM) processes. Swift changes in manufacturing and service systems have led to phenomenal improvements in productivity. The fast-paced environment brings new challenges and opportunities for the companies that are associated with the adaptation to the new concepts such as Internet of Things (IoT) and Cyber Physical Systems, artificial intelligence (AI), robotics, cyber security, data analytics, block chain and cloud technology. These emerging technologies facilitated and expedited the birth of Logistics 4.0. Industrial Revolution 4.0 initiatives in SCM has attracted stakeholders’ attentions due to its ability to empower using a set of technologies together that helps to execute more efficient production and distribution systems. This initiative has been called Logistics 4.0 of the fourth Industrial Revolution in SCM due to its high potential. Connecting entities, machines, physical items and enterprise resources to each other by using sensors, devices and the internet along the supply chains are the main attributes of Logistics 4.0. IoT enables customers to make more suitable and valuable decisions due to the data-driven structure of the Industry 4.0 paradigm. Besides that, the system’s ability of gathering and analyzing information about the environment at any given time and adapting itself to the rapid changes add significant value to the SCM processes. In this peer-reviewed book, experts from all over the world, in the field present a conceptual framework for Logistics 4.0 and provide examples for usage of Industry 4.0 tools in SCM. This book is a work that will be beneficial for both practitioners and students and academicians, as it covers the theoretical framework, on the one hand, and includes examples of practice and real world.

DIGITAL ELECTRONICS PRACTICE USING INTEGRATED CIRCUITS JAIN R P 1988

A Textbook of Digital Electronics S. S. Bhatti 2011-11 Digital electronics is an interdisciplinary subject of electronics, electrical, information technology, computer science engineering and sciences domain. Digital Electronics has been written as per the syllabus of Digital Electronics, Digital Circuits and Logic Design of various universities like

PTU, GNDU, PU, SLIET, DU, PEC, NITs and Thapar University. The book provides a comprehensive coverage of the fundamental aspects of digital electronics. It not only explores the theoretical and practical aspects of digital circuitry, but also gives a glimpse of experience and classroom interaction of the authors. Besides, the step-by-step methods to solve the digital system problems, it also includes the shortcut methods to digital approach for job interviews and competitive examinations. This book is invaluable for BE, B.Tech., B.Sc., M.Sc. (Computer Science/IT), M.Sc. (Physics), M.Sc. (Electronics), BCA, MCA, PGDCA and PGDIT students.

Digital Design M. Morris Mano 2013 For courses on digital design in an Electrical Engineering, Computer Engineering, or Computer Science department. *Digital Design, fifth edition* is a modern update of the classic authoritative text on digital design. This book teaches the basic concepts of digital design in a clear, accessible manner. The book presents the basic tools for the design of digital circuits and provides procedures suitable for a variety of digital applications.

Digital Logic Design Brian Holdsworth 2002-11-01 New, updated and expanded topics in the fourth edition include: EBCDIC, Grey code, practical applications of flip-flops, linear and shaft encoders, memory elements and FPGAs. The section on fault-finding has been expanded. A new chapter is dedicated to the interface between digital components and analog voltages. *A highly accessible, comprehensive and fully up to date digital systems text *A well known and respected text now revamped for current courses *Part of the Newnes suite of texts for HND/1st year modules

Vector Spaces, Matrices and Tensors in Physics M. C. Jain 2018-04-30 Vector spaces, matrices, and tensors in physics form an essential part of the mathematical background required by physicists. This book is written primarily as textbook for undergraduate and postgraduate students and as a reference book for working physicists. Special emphasis is given to topics relevant to physics, for example linear independence and dependence of vectors, inner product, orthonormality, matrices as representations of linear transformations on vector spaces, similarity, eigenvalues, eigenvectors, diagonalization of matrices, expressing various physical quantities as tensors, tensorial formulation of vector algebra, calculus and geometry. The role of orthogonal, hermitian and unitary matrices in physics is highlighted.

Guide to Research Techniques in Neuroscience Matt Carter 2022-04-08 Modern neuroscience research is inherently multidisciplinary, with a wide variety of cutting edge new techniques to explore multiple levels of investigation. This Third Edition of *Guide to Research Techniques in Neuroscience* provides a comprehensive overview of classical and cutting edge methods including their utility, limitations, and how data are presented in the literature. This book can be used as an introduction to neuroscience techniques for anyone new to the field or as a reference for any neuroscientist while reading papers or attending talks. • Nearly 200 updated full-color illustrations to clearly convey the theory and practice of neuroscience methods • Expands on techniques from previous editions and covers many new techniques including in vivo calcium imaging, fiber photometry, RNA-Seq, brain spheroids, CRISPR-Cas9 genome editing, and more • Clear, straightforward explanations of each technique for anyone new to the field • A broad scope of methods, from noninvasive brain imaging in human subjects, to electrophysiology in animal models, to recombinant DNA technology in test tubes, to transfection of neurons in cell culture • Detailed recommendations on where to find protocols and other resources for specific techniques • “Walk-through boxes that guide readers through experiments step-by-step

Computer Architecture and Organization John Patrick Hayes 1998 The third edition of *Computer Architecture and Organization* features a comprehensive updating of the material-especially case studies, worked examples, and problem sets-while retaining the

book's time-proven emphasis on basic principles. Reflecting the dramatic changes in computer technology that have taken place over the last decade, the treatment of performance-related topics such as pipelines, caches, and RISC's has been expanded. Many examples and end-of-chapter problems have also been added.

Switching Theory & Logic Design Atul P. Godse 2009

Number Systems and Codes
Philosophy of number systems - complement representation of negative numbers - binary arithmetic - binary codes - error detecting and error correcting codes - hamming codes.

Boolean Algebra and Switching Functions
Fundamental postulates of Boolean Algebra - Basic theorems and properties - switching functions - Canonical and Standard forms - Algebraic simplification - digital logic gates, properties of XOR gates - universal gates - Multilevel NAND/NOR realizations.

Minimization of Switching Functions
Map method, Prime implicants, Don't care combinations, Minimal SOP and POS forms, Tabular Method, Prime - Implicant chart, simplification rules.

Combinational Logic Design
Design using conventional logic gates, Encoder, Decoder, Multiplexer, De-Multiplexer, Modular design IC chips, MUX Realization of switching functions Parity bit generator, Code-converters, Hazards and hazard free realizations.

Programmable Logic Devices, Threshold Logic
Basic PLD's-ROM, PROM, PLA, PLD Realization of Switching functions using PLD's. Capabilities and limitations of Threshold gate, Synthesis of Threshold functions, Multigate Synthesis.

Sequential Circuits - I
Classification of sequential circuits (Synchronous, Asynchronous, Pulse mode, Level mode with examples) Basic flop-flops-Triggering and excitation tables. Steps in synchronous sequential circuit design. Design of modulo-N Ring and shift counters, Serial binary adder, sequence detector.

Sequential Circuits - II
Finite state machine-capabilities and limitations, Mealy and Moore models-minimization of completely specified and incompletely specified sequential machines, Partition techniques and Merger chart methods-concept of minimal cover table.

Algorithmic State Machines
Salient features of the ASM chart-Simple examples-System design using data path and control subsystems-control implementations-examples of Weighing machine and Binary multiplier.

Digital Integrated Electronics Herbert Taub 1977

Table of Contents
1 Electronic Devices
2 Operational Amplifiers and Comparators
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15 Timing Circuits

Principles of Digital Electronics K. Meena 2009

This book teaches the basic principles of digital circuits. It is appropriate for an introductory course in digital electronics for the students of: • B.Sc. (Computer Science) • B.Sc. (Electronics) • B.Sc. (Information Technology) • B.Sc. (Physics) • Bachelor of Computer Applications (BCA) • Postgraduate Diploma in Computer Applications • Master of Computer Applications (MCA)

The book emphasizes the must know concepts that should be covered in an introductory course and provides an abundance of clearly explained examples, so essential for a thorough understanding of the principles involved in the analysis and design of digital computers. The book takes students step-by-step through digital theory, focusing on: » Number representation systems and codes for representing information in digital systems » Use of logic gates in building digital circuits » Basic postulates and theorems of Boolean algebra » Karnaugh map method for simplifying Boolean functions » Arithmetic circuits such as adders and subtractors » Combinational circuit building blocks such as multiplexers, decoders and encoders » Sequential circuit building blocks such as flip-flops, counters and registers » Operation of memory elements such as RAM, DRAM, magnetic disk, magnetic bubble, optical disk, etc.

1. Number Systems and Codes
2. Logic Gates and Circuits
3.

Boolean Algebra 4. Combinational Logic Circuits 5. Sequential Logic Circuits 6. Counters and Shift Registers 7. MEMORY ELEMENTS

Basic Electrical Engineering Mehta V.K. & Mehta Rohit 2008 For close to 30 years, *Basic Electrical Engineering* has been the go-to text for students of Electrical Engineering. Emphasis on concepts and clear mathematical derivations, simple language coupled with systematic development of the subject aided by illustrations makes this text a fundamental read on the subject. Divided into 17 chapters, the book covers all the major topics such as DC Circuits, Units of Work, Power and Energy, Magnetic Circuits, fundamentals of AC Circuits and Electrical Instruments and Electrical Measurements in a straightforward manner for students to understand.

Additive Manufacturing Amit Bandyopadhyay 2015-09-08 The field of additive manufacturing has seen explosive growth in recent years due largely in part to renewed interest from the manufacturing sector. Conceptually, additive manufacturing, or industrial 3D printing, is a way to build parts without using any part-specific tooling or dies from the computer-aided design (CAD) file of the part. Today, most engineered devices are 3D printed first to check their shape, size, and functionality before large-scale production. In addition, as the cost of 3D printers has come down significantly, and the printers' reliability and part quality have improved, schools and universities have been investing in 3D printers to experience, explore, and innovate with these fascinating additive manufacturing technologies. *Additive Manufacturing* highlights the latest advancements in 3D printing and additive manufacturing technologies. Focusing on additive manufacturing applications rather than on core 3D printing technologies, this book: Introduces various additive manufacturing technologies based on their utilization in different classes of materials Discusses important application areas of additive manufacturing, including medicine, education, and the space industry Explores regulatory challenges associated with the emergence of additive manufacturing as a mature technological platform By showing how 3D printing and additive manufacturing technologies are currently used, *Additive Manufacturing* not only provides a valuable reference for veteran researchers and those entering this exciting field, but also encourages innovation in future additive manufacturing applications.