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KEY=TEXT - SANTOS REILLY

Digital Signal Processing

Laxmi Publications

Signals & Systems 4edn

SIGNALS AND SYSTEMS.

A Self-Study Guide for Digital Signal Processing

Pearson Education India

Introduction to Information Retrieval

Cambridge University Press *Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures.*

Digital Filter Design

Wiley-Interscience *Introduction to digital filters. Finite impulse-response filters. Design of linear-phase finite impulse-response. Minimum-phases and complex approximation. Implementation of finite impulse-response filters. Properties of infinite impulse-response filters. Design of infinite impulse-response filters. Implementation of infinite impulse-response filters. Programs.*

Digital Signal Processing

Pearson Education India

Evolutionary Computing and Mobile Sustainable Networks

Proceedings of ICECMSN 2020

Springer Nature *This book features selected research papers presented at the International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN 2020), held at the Sir M. Visvesvaraya Institute of Technology on 20-21 February 2020. Discussing advances in evolutionary computing technologies, including swarm intelligence algorithms and other evolutionary algorithm paradigms which are emerging as widely accepted descriptors for mobile sustainable networks virtualization, optimization and automation, this book is a valuable resource for researchers in the field of evolutionary computing and mobile sustainable networks.*

Applications of Digital Signal Processing

Prentice Hall Some applications of digital signal processing in telecommunications. Digital processing in audio signals. Digital processing of speech. Digital image processing. Applications of digital signal processing to radar. Sonar signal processing. Digital signal processing in geophysics.

DIGITAL SIGNAL PROCESSING

PHI Learning Pvt. Ltd. The second edition of this well received text continues to provide coherent and comprehensive coverage of digital signal processing. It is designed for undergraduate students of Electronics and Communication engineering, Telecommunication engineering, Electronics and Instrumentation engineering, Electrical and Electronics engineering, Electronics and Computers engineering, Biomedical engineering and Medical Electronics engineering. This book will also be useful to AMIE and IETE students. Written with student-centred, pedagogically-driven approach, the text provides a self-contained introduction to the theory of digital signal processing. It covers topics ranging from basic discrete-time signals and systems, discrete convolution and correlation, Z-transform and its applications, realization of discrete-time systems, discrete-time Fourier transform, discrete Fourier series, discrete Fourier transform to fast Fourier transform. In addition to this, various design techniques for design of IIR and FIR filters are discussed. Multi-rate digital signal processing and introduction to digital signal processors and finite word length effects on digital filters are also covered. All the solved and unsolved problems in this book are designed to illustrate the topics in a clear way. MATLAB programs and the results for typical examples are also included at the end of chapters for the benefit of the students. New to This Edition A chapter on Finite Word Length Effects in Digital Filters Key Features • Numerous worked-out examples in each chapter • Short questions with answers help students to prepare for examinations and interviews • Fill in the blanks, review questions, objective type questions and unsolved problems at the end of each chapter to test the level of understanding of the subject

Fundamentals of Relational Database Management Systems

Springer This book provides comprehensive coverage of fundamentals of database management system. It contains a detailed description on Relational Database Management System Concepts. There are a variety of solved examples and review questions with solutions. This book is for those who require a better understanding of relational data modeling, its purpose, its nature, and the standards used in creating relational data model.

Digital Signal Processing, 4e

Pearson Education India This fourth edition covers the fundamentals of discrete-time signals, systems, and modern digital signal processing. Appropriate for students of electrical engineering, computer engineering, and computer science, the book is suitable for undergraduate and graduate courses and provides balanced coverage of both theory and practical applications.

SIGNALS AND SYSTEMS

PHI Learning Pvt. Ltd. This comprehensive text on control systems is designed for undergraduate students pursuing courses in electronics and communication engineering, electrical and electronics engineering, telecommunication engineering, electronics and instrumentation engineering, mechanical engineering, and biomedical engineering. Appropriate for self-study, the book will also be useful for AMIE and IETE students. Written in a student-friendly readable manner, the book explains the basic fundamentals and concepts of control systems in a clearly understandable form. It is a balanced survey of theory aimed to provide the students with an in-depth insight into system behaviour and control of continuous-time control systems. All the solved and unsolved problems in this book are classroom tested, designed to illustrate the topics in a clear and thorough way. KEY FEATURES : Includes several fully worked-out examples to help students master the concepts involved. Provides short questions with answers at the end of each chapter to help students prepare for exams confidently. Offers fill in the blanks and objective type questions with answers at the end of each chapter to quiz students on key learning points. Gives chapter-end review questions and problems to assist students in reinforcing their knowledge.

Data Science and Analytics

5th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2019, Gurugram, India, November 15–16, 2019, Revised

Selected Papers, Part II

Springer This two-volume set (CCIS 1229 and CCIS 1230) constitutes the refereed proceedings of the 5th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2019, held in Gurugram, India, in November 2019. The 74 revised full papers presented were carefully reviewed and selected from total 353 submissions. The papers are organized in topical sections on data centric programming; next generation computing; social and web analytics; security in data science analytics; big data analytics.

Information Technology and Mobile Communication International Conference, AIM 2011, Nagpur, Maharashtra, India, April 21-22, 2011, Proceedings

Springer Science & Business Media This book constitutes the refereed proceedings of the International Conference on Advances in Information Technology and Mobile Communication, AIM 2011, held at Nagpur, India, in April 2011. The 31 revised full papers presented together with 27 short papers and 34 poster papers were carefully reviewed and selected from 313 submissions. The papers cover all current issues in theory, practices, and applications of Information Technology, Computer and Mobile Communication Technology and related topics.

Digital Signal Processing Circuits, Signals, and Systems

MIT Press These twenty lectures have been developed and refined by Professor Siebert during the more than two decades he has been teaching introductory Signals and Systems courses at MIT. The lectures are designed to pursue a variety of goals in parallel: to familiarize students with the properties of a fundamental set of analytical tools; to show how these tools can be applied to help understand many important concepts and devices in modern communication and control engineering practice; to explore some of the mathematical issues behind the powers and limitations of these tools; and to begin the development of the vocabulary and grammar, common images and metaphors, of a general language of signal and system theory. Although broadly organized as a series of lectures, many more topics and examples (as well as a large set of unusual problems and laboratory exercises) are included in the book than would be presented orally. Extensive use is made throughout of knowledge acquired in early courses in elementary electrical and electronic circuits and differential equations. Contents: Review of the "classical" formulation and solution of dynamic equations for simple electrical circuits; The unilateral Laplace transform and its applications; System functions; Poles and zeros; Interconnected systems and feedback; The dynamics of feedback systems; Discrete-time signals and linear difference equations; The unilateral Z-transform and its applications; The unit-sample response and discrete-time convolution; Convolutional representations of continuous-time systems; Impulses and the superposition integral; Frequency-domain methods for general LTI systems; Fourier series; Fourier transforms and Fourier's theorem; Sampling in time and frequency; Filters, real and ideal; Duration, rise-time and bandwidth relationships: The uncertainty principle; Bandpass operations and analog communication systems; Fourier transforms in discrete-time systems; Random Signals; Modern communication systems. William Siebert is Ford Professor of Engineering at MIT. Circuits, Signals, and Systems is included in The MIT Press Series in Electrical Engineering and Computer Science, copublished with McGraw-Hill.

Smart Technologies for Energy, Environment and Sustainable Development

Select Proceedings of ICSTEESD 2018

Springer This book comprises select proceedings of the International Conference on Smart Technologies for Energy, Environment, and Sustainable Development (ICSTEESD 2018). The chapters are broadly divided into three focus areas, viz. energy, environment, and sustainable development, and discusses the relevance and applications of smart technologies in these fields. A wide variety of topics such as renewable energy, energy conservation and management, energy policy and planning, environmental management, marine environment, green building, smart cities, smart transportation are covered in this book. Researchers and professionals from varied engineering backgrounds contribute chapters with an aim to provide economically viable solutions to sustainable development challenges. The book will prove useful for academics, professionals, and policy makers interested in sustainable development.

Digital Signal Processing

Tata McGraw-Hill Education

Signal Processing for 5G

Algorithms and Implementations

John Wiley & Sons A comprehensive and invaluable guide to 5G technology, implementation and practice in one single volume. For all things 5G, this book is a must-read. Signal processing techniques have played the most important role in wireless communications since the second generation of cellular systems. It is anticipated that new techniques employed in 5G wireless networks will not only improve peak service rates significantly, but also enhance capacity, coverage, reliability, low-latency, efficiency, flexibility, compatibility and convergence to meet the increasing demands imposed by applications such as big data, cloud service, machine-to-machine (M2M) and mission-critical communications. This book is a comprehensive and detailed guide to all signal processing techniques employed in 5G wireless networks. Uniquely organized into four categories, New Modulation and Coding, New Spatial Processing, New Spectrum Opportunities and New System-level Enabling Technologies, it covers everything from network architecture, physical-layer (down-link and up-link), protocols and air interface, to cell acquisition, scheduling and rate adaptation, access procedures and relaying to spectrum allocations. All technology aspects and major roadmaps of global 5G standard development and deployments are included in the book. Key Features: Offers step-by-step guidance on bringing 5G technology into practice, by applying algorithms and design methodology to real-time circuit implementation, taking into account rapidly growing applications that have multi-standards and multi-systems. Addresses spatial signal processing for 5G, in particular massive multiple-input multiple-output (massive-MIMO), FD-MIMO and 3D-MIMO along with orbital angular momentum multiplexing, 3D beamforming and diversity. Provides detailed algorithms and implementations, and compares all multicarrier modulation and multiple access schemes that offer superior data transmission performance including FBMC, GFDM, F-OFDM, UPMC, SEFDM, FTN, MUSA, SCMA and NOMA. Demonstrates the translation of signal processing theories into practical solutions for new spectrum opportunities in terms of millimeter wave, full-duplex transmission and license assisted access. Presents well-designed implementation examples, from individual function block to system level for effective and accurate learning. Covers signal processing aspects of emerging system and network architectures, including ultra-dense networks (UDN), software-defined networks (SDN), device-to-device (D2D) communications and cloud radio access network (C-RAN).

Foundations of Digital Signal Processing

Theory, Algorithms and Hardware Design

IEE An excellent introductory text, this book covers the basic theoretical, algorithmic and real-time aspects of digital signal processing (DSP). Detailed information is provided on off-line, real-time and DSP programming and the reader is effortlessly guided through advanced topics such as DSP hardware design, FIR and IIR filter design and difference equation manipulation.

Integration of Distributed Generation in the Power System

John Wiley & Sons The integration of new sources of energy like wind power, solar-power, small-scale generation, or combined heat and power in the power grid is something that impacts a lot of stakeholders: network companies (both distribution and transmission), the owners and operators of the DG units, other end-users of the power grid (including normal consumers like you and me) and not in the least policy makers and regulators. There is a lot of misunderstanding about the impact of DG on the power grid, with one side (including mainly some but certainly not all, network companies) claiming that the lights will go out soon, whereas the other side (including some DG operators and large parts of the general public) claiming that there is nothing to worry about and that it's all a conspiracy of the large production companies that want to protect their own interests and keep the electricity price high. The authors are of the strong opinion that this is NOT the way one should approach such an important subject as the integration of new, more environmentally friendly, sources of energy in the power grid. With this book the authors aim to bring some clarity to the debate allowing all stakeholders together to move to a solution. This book will introduce systematic and transparent methods for quantifying the impact of DG on the power grid.

Emerging Technologies in Data Mining and Information Security

Proceedings of IEMIS 2018, Volume 3

Springer The book features research papers presented at the International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2018) held at the University of Engineering & Management, Kolkata, India, on February 23–25, 2018. It comprises high-quality research by academics and industrial experts in the field of computing and communication, including full-length papers, research-in-progress papers, case studies related to all the areas of data mining, machine learning, IoT and information security.

Handbook of Computer Networks and Cyber Security

Principles and Paradigms

Springer Nature *This handbook introduces the basic principles and fundamentals of cyber security towards establishing an understanding of how to protect computers from hackers and adversaries. The highly informative subject matter of this handbook, includes various concepts, models, and terminologies along with examples and illustrations to demonstrate substantial technical details of the field. It motivates the readers to exercise better protection and defense mechanisms to deal with attackers and mitigate the situation. This handbook also outlines some of the exciting areas of future research where the existing approaches can be implemented. Exponential increase in the use of computers as a means of storing and retrieving security-intensive information, requires placement of adequate security measures to safeguard the entire computing and communication scenario. With the advent of Internet and its underlying technologies, information security aspects are becoming a prime concern towards protecting the networks and the cyber ecosystem from variety of threats, which is illustrated in this handbook. This handbook primarily targets professionals in security, privacy and trust to use and improve the reliability of businesses in a distributed manner, as well as computer scientists and software developers, who are seeking to carry out research and develop software in information and cyber security. Researchers and advanced-level students in computer science will also benefit from this reference.*

Wind Turbines

Fundamentals, Technologies, Application, Economics

Springer Science & Business Media *Wind Turbines addresses all those professionally involved in research, development, manufacture and operation of wind turbines. It provides a cross-disciplinary overview of modern wind turbine technology and an orientation in the associated technical, economic and environmental fields. It is based on the author's experience gained over decades designing wind energy converters with a major industrial manufacturer and, more recently, in technical consulting and in the planning of large wind park installations, with special attention to economics. The second edition accounts for the emerging concerns over increasing numbers of installed wind turbines. In particular, an important new chapter has been added which deals with offshore wind utilisation. All advanced chapters have been extensively revised and in some cases considerably extended*

Distributed Power Generation

Planning and Evaluation

CRC Press *In the view of many power experts, distributed power generation represents the paradigm of the future. Distributed Power Generation: Planning and Evaluation explores the preparation and analysis of distributed generators (DGs) for residential, commercial and industrial, as well as electric utility applications. It examines distributed generation versus traditional, centralized power systems, power demands, reliability evaluation, planning processes, costs, reciprocating piston engine DGs, gas turbine powered DGs, fuel cell powered DGs, renewable resource DGs, and more. The authors include recommendations and guidelines for DG planners, and numerous case studies illustrate the discussions.*

Linear Integrated Circuits

New Age International *Designed Primarily For Courses In Operational Amplifier And Linear Integrated Circuits For Electrical, Electronic, Instrumentation And Computer Engineering And Applied Science Students. Includes Detailed Coverage Of Fabrication Technology Of Integrated Circuits. Basic Principles Of Operational Amplifier, Internal Construction And Applications Have Been Discussed. Important Linear Ics Such As 555 Timer, 565 Phase-Locked Loop, Linear Voltage Regulator Ics 78/79 Xx And 723 Series D-A And A-D Converters Have Been Discussed In Individual Chapters. Each Topic Is Covered In Depth. Large Number Of Solved Problems, Review Questions And Experiments Are Given With Each Chapter For Better Understanding Of Text. Salient Features Of Second Edition * Additional Information Provided Wherever Necessary To Improve The Understanding Of Linear Ics. * Chapter 2 Has Been Thoroughly Revised. * Dc & Ac Analysis Of Differential Amplifier Has Been Discussed In Detail. * The Section On Current Mirrors Has Been Thoroughly Updated. * More Solved Examples, Pspice Programs And Answers To Selected Problems Have Been Added.*

Understanding Digital Signal Processing

Unders Digita Signal Proces_3

Pearson Education *Amazon.com's Top-Selling DSP Book for Seven Straight Years—Now Fully Updated! Understanding Digital Signal Processing, Third Edition, is quite simply the best resource for engineers and other technical professionals who want to master and apply today's latest DSP techniques. Richard G. Lyons has updated and expanded his best-selling second edition to reflect the newest technologies, building on the exceptionally readable coverage that made it the favorite of DSP professionals worldwide. He has also added hands-on problems to every chapter, giving students even more of the practical experience they need to succeed. Comprehensive in scope and clear in approach, this book achieves the perfect balance between theory and practice, keeps math at a*

tolerable level, and makes DSP exceptionally accessible to beginners without ever oversimplifying it. Readers can thoroughly grasp the basics and quickly move on to more sophisticated techniques. This edition adds extensive new coverage of FIR and IIR filter analysis techniques, digital differentiators, integrators, and matched filters. Lyons has significantly updated and expanded his discussions of multirate processing techniques, which are crucial to modern wireless and satellite communications. He also presents nearly twice as many DSP Tricks as in the second edition—including techniques even seasoned DSP professionals may have overlooked. Coverage includes New homework problems that deepen your understanding and help you apply what you've learned Practical, day-to-day DSP implementations and problem-solving throughout Useful new guidance on generalized digital networks, including discrete differentiators, integrators, and matched filters Clear descriptions of statistical measures of signals, variance reduction by averaging, and real-world signal-to-noise ratio (SNR) computation A significantly expanded chapter on sample rate conversion (multirate systems) and associated filtering techniques New guidance on implementing fast convolution, IIR filter scaling, and more Enhanced coverage of analyzing digital filter behavior and performance for diverse communications and biomedical applications Discrete sequences/systems, periodic sampling, DFT, FFT, finite/infinite impulse response filters, quadrature (I/Q) processing, discrete Hilbert transforms, binary number formats, and much more

Routledge Handbook of Indian Cinemas

Routledge India is the largest film producing country in the world and its output has a global reach. After years of marginalisation by academics in the Western world, Indian cinemas have moved from the periphery to the centre of the world cinema in a comparatively short space of time. Bringing together contributions from leading scholars in the field, this Handbook looks at the complex reasons for this remarkable journey. Combining a historical and thematic approach, the Handbook discusses how Indian cinemas need to be understood in their historical unfolding as well as their complex relationships to social, economic, cultural, political, ideological, aesthetic, technical and institutional discourses. The thematic section provides an up-to-date critical narrative on diverse topics such as audience, censorship, film distribution, film industry, diaspora, sexuality, film music and nationalism. The Handbook provides a comprehensive and cutting edge survey of Indian cinemas, discussing Popular, Parallel/New Wave and Regional cinemas as well as the spectacular rise of Bollywood. It is an invaluable resource for students and academics of South Asian Studies, Film Studies and Cultural Studies.

Multirate Systems And Filter Banks

Pearson Education India

Digital Signal Processing Using MATLAB for Students and Researchers

John Wiley & Sons Quickly Engages in Applying Algorithmic Techniques to Solve Practical Signal Processing Problems With its active, hands-on learning approach, this text enables readers to master the underlying principles of digital signal processing and its many applications in industries such as digital television, mobile and broadband communications, and medical/scientific devices. Carefully developed MATLAB® examples throughout the text illustrate the mathematical concepts and use of digital signal processing algorithms. Readers will develop a deeper understanding of how to apply the algorithms by manipulating the codes in the examples to see their effect. Moreover, plenty of exercises help to put knowledge into practice solving real-world signal processing challenges. Following an introductory chapter, the text explores: Sampled signals and digital processing Random signals Representing signals and systems Temporal and spatial signal processing Frequency analysis of signals Discrete-time filters and recursive filters Each chapter begins with chapter objectives and an introduction. A summary at the end of each chapter ensures that one has mastered all the key concepts and techniques before progressing in the text. Lastly, appendices listing selected web resources, research papers, and related textbooks enable the investigation of individual topics in greater depth. Upon completion of this text, readers will understand how to apply key algorithmic techniques to address practical signal processing problems as well as develop their own signal processing algorithms. Moreover, the text provides a solid foundation for evaluating and applying new digital processing signal techniques as they are developed.

Digital Signal Processing

A Computer Based Approach

McGraw-Hill Companies *Digital Signal Processing: A Computer-Based Approach* is intended for a two-semester course on digital signal processing for seniors or first-year graduate students. Based on user feedback, a number of new topics have been added to the third edition, while some excess topics from the second edition have been removed. The author has taken great care to organize the chapters more logically by reordering the sections within chapters. More worked-out examples have also been included. The book contains more than 500 problems and 150 MATLAB exercises. New topics in the third edition include: short-time characterization of discrete-time signals, expanded coverage of discrete-time Fourier transform and discrete Fourier transform, prime factor algorithm for DFT computation, sliding DFT, zoom FFT, chirp Fourier transform, expanded coverage of z-transform, group delay equalization of IIR digital filters, design of computationally efficient FIR digital filters, semi-symbolic analysis of digital filter structures, spline interpolation, spectral factorization, discrete wavelet transform.

Digital Signal Processing in Communications Systems

Springer Science & Business Media An engineer's introduction to concepts, algorithms, and advancements in Digital Signal Processing. This lucidly written resource makes extensive use of real-world examples as it covers all the important design and engineering references.

Artificial Intelligence and Evolutionary Algorithms in Engineering Systems

Proceedings of ICAEES 2014

Springer The book is a collection of high-quality peer-reviewed research papers presented in Proceedings of International Conference on Artificial Intelligence and Evolutionary Algorithms in Engineering Systems (ICAEEES 2014) held at Noorul Islam Centre for Higher Education, Kumaracoil, India. These research papers provide the latest developments in the broad area of use of artificial intelligence and evolutionary algorithms in engineering systems. The book discusses wide variety of industrial, engineering and scientific applications of the emerging techniques. It presents invited papers from the inventors/originators of new applications and advanced technologies.

Basic Electronics

Solid State

S. Chand Publishing Aims of the Book: The foremost and primary aim of the book is to meet the requirements of students pursuing following courses of study: 1. Diploma in Electronics and Communication Engineering (ECE)-3-year course offered by various Indian and foreign polytechnics and technical institutes like City and Guilds of London Institute (CGLI). 2. B.E. (Elect. & Comm.)-4-year course offered by various Engineering Colleges. Efforts have been made to cover the papers: Electronics-I & II and Pulse and Digital Circuits. 3. B.Sc. (Elect.)-3-Year vocationalised course recently introduced by Approach.

Simple

Conquering the Crisis of Complexity

Twelve For decades, Alan Siegel and Irene Etzkorn have championed simplicity as a competitive advantage and a consumer right. Consulting with businesses and organizations around the world to streamline products, services, processes and communications, they have achieved dramatic results. In SIMPLE, the culmination of their work together, Siegel and Etzkorn show us how having empathy, striving for clarity, and distilling your message can reduce the distance between company and customer, hospital and patient, government and citizen and increase your bottom line. Examining the best and worst practices of an array of organizations big and small-including the IRS, Google, Philips, Trader Joe's, Chubb Insurance, and ING Direct, and many more-Siegel and Etzkorn recast simplicity as a mindset, a design aesthetic, and a writing technique. In these illuminating pages you will discover, among other things: Why the Flip camera became roadkill in the wake of the iPhone What SIMPLE idea allowed the Cleveland Clinic to improve care and increase revenue How OXO designed a measuring cup that sold a million units in its first 18 months on the market Where Target got the idea for their "ClearRX" prescription system How New York City simplified its unwieldy bureaucracy with three simple numbers By exposing the overly complex things we encounter every day, SIMPLE reveals the reasons we allow confusion to persist, inspires us to seek clarity, and explores how social media is empowering consumers to demand simplicity. The next big idea in business is SIMPLE.

Introduction to Digital Signal Processing

Self Study Course

This text provides a basic understanding of digital signal processing concepts and techniques. It begins with the characterization of discrete-time signals and systems in the time and frequency domains augmented by MATLAB functions. It then covers Fourier analysis based on digital techniques.

Principles of Digital Communication and Coding

Courier Corporation Written by two distinguished experts in the field of digital communications, this classic text remains a vital resource three decades after its initial publication. Its treatment is geared toward advanced students of communications theory and to designers of channels, links, terminals, modems, or networks used to transmit and receive digital messages. The three-part approach begins with the fundamentals of digital communication and block coding, including an analysis of block code ensemble performance. The second part introduces convolutional coding, exploring ensemble performance and sequential decoding. The final section addresses source coding and rate distortion theory, examining fundamental concepts for memoryless sources as well as precepts

related to memory, Gaussian sources, and universal coding. Appendixes of useful information appear throughout the text, and each chapter concludes with a set of problems, the solutions to which are available online.

Introduction to Digital Speech Processing

Now Publishers Inc Introduction to Digital Speech Processing highlights the central role of DSP techniques in modern speech communication research and applications. It presents a comprehensive overview of digital speech processing that ranges from the basic nature of the speech signal, through a variety of methods of representing speech in digital form, to applications in voice communication and automatic synthesis and recognition of speech. Introduction to Digital Speech Processing provides the reader with a practical introduction to the wide range of important concepts that comprise the field of digital speech processing. It serves as an invaluable reference for students embarking on speech research as well as the experienced researcher already working in the field, who can utilize the book as a reference guide.

Fundamentals of Communication Systems

For one- or two-semester, senior-level undergraduate courses in Communication Systems for Electrical and Computer Engineering majors. This text introduces the basic techniques used in modern communication systems and provides fundamental tools and methodologies used in the analysis and design of these systems. The authors emphasize digital communication systems, including new generations of wireless communication systems, satellite communications, and data transmission networks. A background in calculus, linear algebra, basic electronic circuits, linear system theory, and probability and random variables is assumed.