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**Proceedings of Third International Conference on Sustainable Computing** Ramesh Chandra Poonia 2022 The book includes a selection of the best papers presented at the Third International Conference on Sustainable Computing (SUSCOM 2021), held in Jaipur, India, during 19-20 March 2021. It covers topics like Internet of things (IoT); artificial system of security; smart storage and knowledge retrieval using data cloud; intelligent transport management; intelligent cognitive and bio-inspired computing and management science. The book is useful for peoples from academia, government bodies, healthcare and industry to discuss their future scope.

Conference proceedings. New perspectives in science education 7th edition Pixel 2018-03-19

*Proceedings of the International e-Conference on Intelligent Systems and Signal Processing* Falgun Thakkar 2021-08-13 This book provides insights into the Third International Conference on Intelligent Systems and Signal Processing (eISSP 2020) held By Electronics & Communication Engineering Department of G H Patel College of Engineering & Technology, Gujarat, India, during 28–30 December 2020. The book comprises contributions by the research scholars and academicians covering the topics in signal processing and communication engineering, applied electronics and emerging technologies, Internet of Things (IoT), robotics, machine learning, deep learning and artificial intelligence. The main emphasis of the book is on dissemination of information, experience and research results on the current topics of interest through in-depth discussions and contribution of researchers from all over world. The book is useful for research community, academicians, industrialists and postgraduate students across the globe.

**Recent Innovations in Computing** Pradeep Kumar Singh 2021-01-12 This book features selected papers presented at the 3rd International Conference on Recent Innovations in Computing (ICRIC 2020), held on 20–21 March 2020 at the Central University of Jammu, India, and organized by the university's Department of Computer Science & Information Technology. It includes the latest

research in the areas of software engineering, cloud computing, computer networks and Internet technologies, artificial intelligence, information security, database and distributed computing, and digital India.

**Multirate Filtering for Digital Signal Processing: MATLAB Applications** Milic, Ljiljana 2009-01-31 "This book covers basic and the advanced approaches in the design and implementation of multirate filtering"--Provided by publisher.

**Introduction to Digital Signal Processing and Filter Design** B. A. Shenoi 2005-11-07 A practical and accessible guide to understanding digital signal processing Introduction to Digital Signal Processing and Filter Design was developed and fine-tuned from the author's twenty-five years of experience teaching classes in digital signal processing. Following a step-by-step approach, students and professionals quickly master the fundamental concepts and applications of discrete-time signals and systems as well as the synthesis of these systems to meet specifications in the time and frequency domains. Striking the right balance between mathematical derivations and theory, the book features: \* Discrete-time signals and systems \* Linear difference equations \* Solutions by recursive algorithms \* Convolution \* Time and frequency domain analysis \* Discrete Fourier series \* Design of FIR and IIR filters \* Practical methods for hardware implementation A unique feature of this book is a complete chapter on the use of a MATLAB(r) tool, known as the FDA (Filter Design and Analysis) tool, to investigate the effect of finite word length and different formats of quantization, different realization structures, and different methods for filter design. This chapter contains material of practical importance that is not found in many books used in academic courses. It introduces students in digital signal processing to what they need to know to design digital systems using DSP chips currently available from industry. With its unique, classroom-tested approach, Introduction to Digital Signal Processing and Filter Design is the ideal text for students in electrical and electronic engineering, computer science, and applied mathematics, and an accessible introduction or refresher for engineers and scientists in the field.

Communications and Networking Bo Li 2018-03-19 The two-volume set LNICST 236-237 constitutes the post-conference proceedings of the 12th EAI International Conference on Communications and Networking, ChinaCom 2017, held in Xi'an, China, in September 2017. The total of 112 contributions presented in these volumes are carefully reviewed and selected from 178 submissions. Aside from the technical paper sessions the book is organized in topical sections on wireless communications and networking, satellite and space communications and networking, big data network track, multimedia communications and smart networking, signal processing and communications, network and information security, advances and trends of V2X networks.

**From Brains to Systems** Carlos Hernández 2011-07-12 Brain Inspired Cognitive Systems - BICS 2010 aims to bring together leading scientists and engineers who use analytic and synthetic methods both to understand the astonishing processing properties of biological systems and specifically of the brain, and

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to exploit such knowledge to advance engineering methods to build artificial systems with higher levels of cognitive competence. BICS is a meeting point of brain scientists and cognitive systems engineers where cross-domain ideas are fostered in the hope of getting emerging insights on the nature, operation and extractable capabilities of brains. This multiple approach is necessary because the progressively more accurate data about the brain is producing a growing need of a quantitative understanding and an associated capacity to manipulate this data and translate it into engineering applications rooted in sound theories. BICS 2010 is intended for both researchers that aim to build brain inspired systems with higher cognitive competences, and for life scientists who use and develop mathematical and engineering approaches for a better understanding of complex biological systems like the brain. Four major interlaced focal symposia are planned for this conference and these are organized into patterns that encourage cross-fertilization across the symposia topics. This emphasizes the role of BICS as a major meeting point for researchers and practitioners in the areas of biological and artificial cognitive systems. Debates across disciplines will enrich researchers with complementary perspectives from diverse scientific fields. BICS 2010 will take place July 14-16, 2010, in Madrid, Spain.

*Mathematical Modeling and Signal Processing in Speech and Hearing Sciences* Jack Xin 2014-04-14 The aim of the book is to give an accessible introduction of mathematical models and signal processing methods in speech and hearing sciences for senior undergraduate and beginning graduate students with basic knowledge of linear algebra, differential equations, numerical analysis, and probability. Speech and hearing sciences are fundamental to numerous technological advances of the digital world in the past decade, from music compression in MP3 to digital hearing aids, from network based voice enabled services to speech interaction with mobile phones. Mathematics and computation are intimately related to these leaps and bounds. On the other hand, speech and hearing are strongly interdisciplinary areas where dissimilar scientific and engineering publications and approaches often coexist and make it difficult for newcomers to enter.

High-level Estimation and Exploration of Reliability for Multi-Processor System-on-Chip Zheng Wang 2017-06-23 This book introduces a novel framework for accurately modeling the errors in nanoscale CMOS technology and developing a smooth tool flow at high-level design abstractions to estimate and mitigate the effects of errors. The book presents novel techniques for high-level fault simulation and reliability estimation as well as architecture-level and system-level fault tolerant designs. It also presents a survey of state-of-the-art problems and solutions, offering insights into reliability issues in digital design and their cross-layer countermeasures.

*Simulations of Machines Using MATLAB and Simulink* John Francis Gardner 2001 This book is intended as a supplement for undergraduate courses in Kinematics or Dynamics of Mechanisms, taught in Mechanical Engineering departments. As a MATLAB® supplement, it can be used with any standard textbook, including

Norton's DESIGN OF MACHINERY Second Edition, Erdman/Sandor's MECHANISMS DESIGN, Third Edition, or Mabie/Reinholtz MECHANISMS AND DYNAMICS OF MACHINERY, Fourth Edition. The emphasis of the text is integrating the computational power of MATLAB® into the analysis and design of mechanisms. This new book in Brooks/Cole's Bookware Companion Series™ is the first to apply the use of MATLAB® to the study of kinematics and dynamics of mechanisms. This book is intended as a useful guide for readers interested in understanding kinematics, or as a reference for practicing mechanical engineers. It provides detailed instruction and examples showing how to use MATLAB® (increasingly, the software program of choice among engineers for complex computations) and its accompanying simulation environment, SIMULINK®, to develop powerful and accurate computer simulations of constrained mechanical systems.

MATLAB Simulations for Radar Systems Design Bassem R. Mahafza 2003-12-17  
Simulation is integral to the successful design of modern radar systems, and there is arguably no better software for this purpose than MATLAB. But software and the ability to use it does not guarantee success. One must also: Æ Understand radar operations and design philosophy Æ Know how to select the radar parameters to meet the design requirements Æ Be able to perform detailed trade-off analysis in the context of radar sizing, modes of operation, frequency selection, waveforms, and signal processing Æ Develop loss and error budgets associated with the design MATLAB Simulations for Radar Systems Design teaches all of this and provides the M-files and hands-on simulation experience needed to design and analyze radar systems. Part I forms a comprehensive description of radar systems, their analysis, and the design process. The authors' unique approach involves a design case study introduced in Chapter 1 and followed throughout the text. As the treatment progresses, the complexity increases and the case study requirements are adjusted accordingly. Part II presents a series of chapters-some authored by other experts in the field-on specialized radar topics important to a full understanding of radar systems design and analysis. A comprehensive set of MATLAB programs and functions support both parts of the book and are available for download from the CRC Press Web site.

International Conference on Intelligent Computing and Applications Subhransu Sekhar Dash 2017-12-28 The book is a collection of best papers presented in International Conference on Intelligent Computing and Applications (ICICA 2016) organized by Department of Computer Engineering, D.Y. Patil College of Engineering, Pune, India during 20-22 December 2016. The book presents original work, information, techniques and applications in the field of computational intelligence, power and computing technology. This volume also talks about image language processing, computer vision and pattern recognition, machine learning, data mining and computational life sciences, management of data including Big Data and analytics, distributed and mobile systems including grid and cloud infrastructure.

**Digital Signal Processing using MATLAB** Robert J. Schilling 2016-01-01 Now readers can focus on the development, implementation, and application of modern  
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DSP techniques with the new DIGITAL SIGNAL PROCESSING USING MATLAB, 3E. Written using an engaging informal style, this edition inspires readers to become actively involved with each topic. Every chapter starts with a motivational section that highlights practical examples and challenges that readers can solve using techniques covered in the chapter. Each chapter concludes with a detailed case study example, chapter summary, and a generous selection of practical problems cross-referenced to sections within the chapter. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

**Biometric Recognition** Zhisheng You 2016-10-07 This book constitutes the refereed proceedings of the 11th Chinese Conference on Biometric Recognition, CCBR 2016, held in Chengdu, China, in October 2016. The 84 revised full papers presented in this book were carefully reviewed and selected from 138 submissions. The papers focus on Face Recognition and Analysis; Fingerprint, Palm-print and Vascular Biometrics; Iris and Ocular Biometrics; Behavioral Biometrics; Affective Computing; Feature Extraction and Classification Theory; Anti-Spoofing and Privacy; Surveillance; and DNA and Emerging Biometrics.

*Energy Efficient Computing & Electronics* Santosh K. Kurinec 2019-01-31 In our abundant computing infrastructure, performance improvements across most all application spaces are now severely limited by the energy dissipation involved in processing, storing, and moving data. The exponential increase in the volume of data to be handled by our computational infrastructure is driven in large part by unstructured data from countless sources. This book explores revolutionary device concepts, associated circuits, and architectures that will greatly extend the practical engineering limits of energy-efficient computation from device to circuit to system level. With chapters written by international experts in their corresponding field, the text investigates new approaches to lower energy requirements in computing. Features • Has a comprehensive coverage of various technologies • Written by international experts in their corresponding field • Covers revolutionary concepts at the device, circuit, and system levels

**Future Information Technology, Application, and Service** James (Jong Hyuk) Park 2012-06-05 This book is proceedings of the 7th FTRA International Conference on Future Information Technology (FutureTech 2012). The topics of FutureTech 2012 cover the current hot topics satisfying the world-wide ever-changing needs. The FutureTech 2012 is intended to foster the dissemination of state-of-the-art research in all future IT areas, including their models, services, and novel applications associated with their utilization. The FutureTech 2012 will provide an opportunity for academic and industry professionals to discuss the latest issues and progress in this area. In addition, the conference will publish high quality papers which are closely related to the various theories, modeling, and practical applications in many types of future technology. The main scope of FutureTech 2012 is as follows. Hybrid Information Technology Cloud and Cluster Computing Ubiquitous Networks and Wireless Communications Multimedia Convergence Intelligent and Pervasive Applications Security and

Trust Computing IT Management and Service Bioinformatics and Bio-Inspired Computing Database and Data Mining Knowledge System and Intelligent Agent Human-centric Computing and Social Networks The FutureTech is a major forum for scientists, engineers, and practitioners throughout the world to present the latest research, results, ideas, developments and applications in all areas of future technologies.

Modern Communications Receiver Design and Technology Cornell Drentea 2010 This comprehensive sourcebook thoroughly explores the state-of-the-art in communications receivers, providing detailed practical guidance for constructing an actual high dynamic range receiver from system design to packaging. You also find clear explanations of the technical underpinnings that you need to understand for your work in the field . This cutting-edge reference presents the latest information on modern superheterodyne receivers, dynamic range, mixers, oscillators, complex coherent synthesizers, automatic gain control, DSP and software radios. You find in-depth discussions on system design, including coverage of all pertinent data and tools. Moreover, the book offers you a solid understanding of packaging and mechanical considerations, as well as a look at tomorrow's receiver technology, including new Bragg-cell applications for ultra-wideband electronic warfare receivers. This one-stop resource is packed with over 300 illustrations that support critical topics throughout."

Understanding LTE with MATLAB Houman Zarrinkoub 2014-01-28 An introduction to technical details related to the Physical Layer of the LTE standard with MATLAB® The LTE (Long Term Evolution) and LTE-Advanced are among the latest mobile communications standards, designed to realize the dream of a truly global, fast, all-IP-based, secure broadband mobile access technology. This book examines the Physical Layer (PHY) of the LTE standards by incorporating three conceptual elements: an overview of the theory behind key enabling technologies; a concise discussion regarding standard specifications; and the MATLAB® algorithms needed to simulate the standard. The use of MATLAB®, a widely used technical computing language, is one of the distinguishing features of this book. Through a series of MATLAB® programs, the author explores each of the enabling technologies, pedagogically synthesizes an LTE PHY system model, and evaluates system performance at each stage. Following this step-by-step process, readers will achieve deeper understanding of LTE concepts and specifications through simulations. Key Features: • Accessible, intuitive, and progressive; one of the few books to focus primarily on the modeling, simulation, and implementation of the LTE PHY standard • Includes case studies and test benches in MATLAB®, which build knowledge gradually and incrementally until a functional specification for the LTE PHY is attained • Accompanying Web site includes all MATLAB® programs, together with PowerPoint slides and other illustrative examples Dr Houman Zarrinkoub has served as a development manager and now as a senior product manager with MathWorks, based in Massachusetts, USA. Within his 12 years at MathWorks, he has been responsible for multiple signal processing and communications software tools. Prior to MathWorks, he was a research scientist in the Wireless Group at Nortel Networks, where he

contributed to multiple standardization projects for 3G mobile technologies. He has been awarded multiple patents on topics related to computer simulations. He holds a BSc degree in Electrical Engineering from McGill University and MSc and PhD degrees in Telecommunications from the Institut Nationale de la Recherche Scientifique, in Canada.

[www.wiley.com/go/zarrinkoub](http://www.wiley.com/go/zarrinkoub)

**Radar Systems Analysis and Design Using MATLAB** Bassem R. Mahafza 2015-09-15  
Developed from the author's graduate-level courses, the first edition of this book filled the need for a comprehensive, self-contained, and hands-on treatment of radar systems analysis and design. It quickly became a bestseller and was widely adopted by many professors. The second edition built on this successful format by rearranging and updating topics and code. Reorganized, expanded, and updated, Radar Systems Analysis and Design Using MATLAB®, Third Edition continues to help graduate students and engineers understand the many issues involved in radar systems design and analysis. Each chapter includes the mathematical and analytical coverage necessary for obtaining a solid understanding of radar theory. Additionally, MATLAB functions/programs in each chapter further enhance comprehension of the theory and provide a source for establishing radar system design requirements. Incorporating feedback from professors and practicing engineers, the third edition of this bestselling text reflects the state of the art in the field and restructures the material to be more convenient for course use. It includes several new topics and many new end-of-chapter problems. This edition also takes advantage of the new features in the latest version of MATLAB. Updated MATLAB code is available for download on the book's CRC Press web page.

**Error Correction Coding** Todd K. Moon 2020-12-07 Providing in-depth treatment of error correction Error Correction Coding: Mathematical Methods and Algorithms, 2nd Edition provides a comprehensive introduction to classical and modern methods of error correction. The presentation provides a clear, practical introduction to using a lab-oriented approach. Readers are encouraged to implement the encoding and decoding algorithms with explicit algorithm statements and the mathematics used in error correction, balanced with an algorithmic development on how to actually do the encoding and decoding. Both block and stream (convolutional) codes are discussed, and the mathematics required to understand them are introduced on a "just-in-time" basis as the reader progresses through the book. The second edition increases the impact and reach of the book, updating it to discuss recent important technological advances. New material includes: Extensive coverage of LDPC codes, including a variety of decoding algorithms. A comprehensive introduction to polar codes, including systematic encoding/decoding and list decoding. An introduction to fountain codes. Modern applications to systems such as HDTV, DVBT2, and cell phones Error Correction Coding includes extensive program files (for example, C++ code for all LDPC decoders and polar code decoders), laboratory materials for students to implement algorithms, and an updated solutions manual, all of which are perfect to help the reader understand and retain the content. The book covers classical BCH, Reed Solomon, Golay, Reed Muller, Hamming, and

convolutional codes which are still component codes in virtually every modern communication system. There are also fulsome discussions of recently developed polar codes and fountain codes that serve to educate the reader on the newest developments in error correction.

*Edge Computing and IoT: Systems, Management and Security* Kaishun Wu

**MATLAB for Neuroscientists** Pascal Wallisch 2014-01-09 MATLAB for Neuroscientists serves as the only complete study manual and teaching resource for MATLAB, the globally accepted standard for scientific computing, in the neurosciences and psychology. This unique introduction can be used to learn the entire empirical and experimental process (including stimulus generation, experimental control, data collection, data analysis, modeling, and more), and the 2nd Edition continues to ensure that a wide variety of computational problems can be addressed in a single programming environment. This updated edition features additional material on the creation of visual stimuli, advanced psychophysics, analysis of LFP data, choice probabilities, synchrony, and advanced spectral analysis. Users at a variety of levels—advanced undergraduates, beginning graduate students, and researchers looking to modernize their skills—will learn to design and implement their own analytical tools, and gain the fluency required to meet the computational needs of neuroscience practitioners. The first complete volume on MATLAB focusing on neuroscience and psychology applications Problem-based approach with many examples from neuroscience and cognitive psychology using real data Illustrated in full color throughout Careful tutorial approach, by authors who are award-winning educators with strong teaching experience

Physical Unclonable Functions in Theory and Practice Christoph Böhm 2012-10-16 In *Physical Unclonable Functions in Theory and Practice*, the authors present an in-depth overview of various topics concerning PUFs, providing theoretical background and application details. This book concentrates on the practical issues of PUF hardware design, focusing on dedicated microelectronic PUF circuits. Additionally, the authors discuss the whole process of circuit design, layout and chip verification. The book also offers coverage of: Different published approaches focusing on dedicated microelectronic PUF circuits Specification of PUF circuits General design issues Minimizing error rate from the circuit's perspective Transistor modeling issues of Montecarlo mismatch simulation and solutions Examples of PUF circuits including an accurate description of the circuits and testing/measurement results Different error rate reducing pre-selection techniques This monograph gives insight into PUFs in general and provides knowledge in the field of PUF circuit design and implementation. It could be of interest for all circuit designers confronted with PUF design, and also for professionals and students being introduced to the topic.

**Wireless Personal Communications** Mohsen A. M. El-Bendary 2018-03-24 This book introduces wireless personal communications from the point of view of wireless communication system researchers. Existing sources on wireless communications

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put more emphasis on simulation and fundamental principles of how to build a study model. In this volume, the aim is to pass on to readers as much knowledge as is essential for completing model building of wireless communications, focusing on wireless personal area networks (WPANs). This book is the first of its kind that gives step-by-step details on how to build the WPANs simulation model. It is most helpful for readers to get a clear picture of the whole wireless simulation model by being presented with many study models. The book is also the first treatise on wireless communication that gives a comprehensive introduction to data-length complexity and the computational complexity of the processed data and the error control schemes. This volume is useful for all academic and technical staff in the fields of telecommunications and wireless communications, as it presents many scenarios for enhancing techniques for weak error control performance and other scenarios for complexity reduction of the wireless data and image transmission. Many examples are given to help readers to understand the material covered in the book. Additional resources such as the MATLAB codes for some of the examples also are presented.

**Spectral Audio Signal Processing** Julius Orion Smith 2007 "Spectral Audio Signal Processing is the fourth book in the music signal processing series by Julius O. Smith. One can say that human hearing occurs in terms of spectral models. As a result, spectral models are especially useful in audio applications. For example, with the right spectral model, one can discard most of the information contained in a sound waveform without changing how it sounds. This is the basis of modern audio compression techniques."--Publisher's description.

**Recent Advances in Satellite Aeronautical Communications Modeling** Grekhov, Andrii Mikhailovich 2019-03-15 Modern systems and means of aeronautical radio communication are continuously being improved, but without the development of new technical means, the aviation industry suffers. The development of more innovative plans of aviation technology are needed in order to respond to the ever-increasing standard of aviation technology. Recent Advances in Satellite Aeronautical Communications Modeling is devoted to the modeling of satellite communication channels for aircraft and RPAS/UAV using the Matlab Simulink and NetCracker software. Featuring research on topics such as channel coding, microwave emitters, and array modeling, this book is ideally designed for scientists, engineers, air traffic controllers, managers, researchers, and academicians.

**Digital Signal Processing Using MATLAB for Students and Researchers** John W. Leis 2011-10-14 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.

**MATLAB Simulations for Radar Systems Design** Bassem R. Mahafza 2003-12-17

Simulation is integral to the successful design of modern radar systems, and there is arguably no better software for this purpose than MATLAB. But software and the ability to use it does not guarantee success. One must also: Understand radar operations and design philosophy Know how to select the radar parameters to meet the design req

Frontiers of Discontinuous Numerical Methods and Practical Simulations in Engineering and Disaster Prevention Guangqi Chen 2013-08-12 Analysis of large deformation, rigid body movement and strain or stress for discontinuous materials is often required for project designs and plans in the fields of engineering and disaster prevention. Many numerical simulation and analysis methods have been developed for the requirement from science and technology people since 1970s. Among them, D

**Digital Signal Processing Using MATLAB** Andr  Quinquis 2010-01-05 This book uses MATLAB as a computing tool to explore traditional DSP topics and solve problems. This greatly expands the range and complexity of problems that students can effectively study in signal processing courses. A large number of worked examples, computer simulations and applications are provided, along with theoretical aspects that are essential in order to gain a good understanding of the main topics. Practicing engineers may also find it useful as an introductory text on the subject.

**Communications, Signal Processing, and Systems** Qilian Liang 2019-06-14 This book brings together papers from the 2018 International Conference on Communications, Signal Processing, and Systems, which was held in Dalian, China on July 14–16, 2018. Presenting the latest developments and discussing the interactions and links between these multidisciplinary fields, the book spans topics ranging from communications, signal processing and systems. It is aimed at undergraduate and graduate electrical engineering, computer science and mathematics students, researchers and engineers from academia and industry as well as government employees.

**MATLAB/Simulink for Digital Communication** Won Y. Yang 2018-03-02 Chapter 1:  
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Digital Signal Processing Using MATLAB Vinay K. Ingle 2007 This supplement to any standard DSP text is one of the first books to successfully integrate the use of MATLAB® in the study of DSP concepts. In this book, MATLAB® is used as a computing tool to explore traditional DSP topics, and solve problems to gain insight. This greatly expands the range and complexity of problems that students can effectively study in the course. Since DSP applications are primarily algorithms implemented on a DSP processor or software, a fair amount of programming is required. Using interactive software such as MATLAB® makes it possible to place more emphasis on learning new and difficult concepts than on programming algorithms. Interesting practical examples are discussed and useful problems are explored. This updated second edition includes new homework problems and revises the scripts in the book, available functions, and m-files to MATLAB® V7.

**A Practical Guide to Error-Control Coding Using MATLAB** Yuan Jiang 2010 This practical resource provides you with a comprehensive understanding of error control coding, an essential and widely applied area in modern digital communications. The goal of error control coding is to encode information in such a way that even if the channel (or storage medium) introduces errors, the receiver can correct the errors and recover the original transmitted information. This book includes the most useful modern and classic codes, including block, Reed Solomon, convolutional, turbo, and LDPC codes. You find clear guidance on code construction, decoding algorithms, and error correcting performances. Moreover, this unique book introduces computer simulations integrally to help you master key concepts. Including a companion DVD with MATLAB programs and supported with over 540 equations, this hands-on reference provides you with an in-depth treatment of a wide range of practical implementation issues.

**Advances in Computing and Network Communications** Sabu M. Thampi 2021-04-20 This book constitutes the thoroughly refereed post-conference proceedings of the 4th International Conference on Computing and Network Communications (CoCoNet'20), October 14–17, 2020, Chennai, India. The papers presented were carefully reviewed and selected from several initial submissions. The papers are organized in topical sections on Signal, Image and Speech Processing, Wireless and Mobile Communication, Internet of Things, Cloud and Edge Computing, Distributed Systems, Machine Intelligence, Data Analytics, Cybersecurity,

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