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Multirate Systems And Filter Banks

Pearson Education India

The Customer Success Professional's Handbook

How to Thrive in One of the World's Fastest Growing Careers--While Driving Growth For Your Company

John Wiley & Sons The definitive "Customer Success Manager How-To-Guide" for the CSM profession from Gainsight, who brought you the market-leading Customer Success The Customer Success Manager has become a critical asset to organizations across the business landscape. As the subscription model has spread from the cloud and SaaS to more sectors of the economy, that pivotal role will only grow in importance. That's because if you want to compete and thrive in this new environment, you need to put the customer at the center of your strategy. You need to recognize you're no longer selling just a product. You're selling an outcome. Customer Success Managers (CSM) are committed to capturing and delivering those outcomes by listening to their customers, understanding their needs, and adapting products and services to drive success. Although several existing resources address the customer success imperative, there is no authoritative instruction manual for the CSM profession—until now. The Customer Success Professional's Handbook is the definitive reference book for CSMs and similar roles in the field. This practical, first-of-its-kind manual fills a significant gap in professional customer success literature, providing the knowledge every CSM needs to succeed—from the practitioner level all the way to senior leadership. The authors—acknowledged experts in building, training, and managing Customer Success teams—offer real-world guidance and practical advice for aspiring and experienced CSMs alike. The handbook is written by practioners for practioners. An indispensable resource for front-line Customer Success Managers, this much-needed book: Demonstrates how to build, implement, and manage a Customer Success team Helps new CSMs develop their skills and proficiency to be more employable and grow in their careers Provides clear guidance for managers on how to hire a stellar CSM Presents practical tactics needed to drive revenue growth during renewal, expansion, and customer advocacy opportunities Explains proven methods and strategies for mentoring CSMs throughout their careers Offers valuable insights from Gainsight, the Customer Success Company, and the broader customer success community with more than a dozen of the industry's most respected leaders contributing their perspectives Currently, with over 70,000 open positions, Customer Success Manager in one of the fastest-growing jobs in the world. The Customer Success Professional's Handbook: How to Thrive in One of the World's Fastest Growing Careers—While Driving Growth For Your Company will prove to be your go-to manual throughout every stage of your CSM career.

Theory and Application of Multi-Formalism Modeling

IGI Global With complex systems and complex requirements being a challenge that designers must face to reach quality results, multi-formalism modeling offers tools and methods that allow modelers to exploit the benefits of different techniques in a general framework intended to address these challenges. Theory and Application of Multi-Formalism Modeling boldly explores the importance of this topic by gathering experiences, theories, applications, and solutions from diverse perspectives of those involved with multi-formalism modeling. Professionals, researchers, academics, and students in this field will be able to critically evaluate the latest developments and future directions of multi-formalism research.

Customer Success

How Innovative Companies Are Reducing Churn and

Growing Recurring Revenue

John Wiley & Sons "Customer Success will become the authoritative book of the emerging Customer Success industry and target any business that is trying to focus, or re-focus, on customers and will be applicable to all customer management roles such as Account Manager, Customer Advocacy, Client Relationship Manager, and Customer Success Manager along with the leadership of those organizations. Customer Success will address the pains of how to start creating a customer-centric company and how to think strategically about Customer Success - how to organize, compensate, find a leader, measure, etc. Customer Success has exploded as one of the hottest B2B movements since the advent of the subscription business model"--

The Theory of Linear Prediction

Morgan & Claypool Publishers Linear prediction theory has had a profound impact in the field of digital signal processing. Although the theory dates back to the early 1940s, its influence can still be seen in applications today. The theory is based on very elegant mathematics and leads to many beautiful insights into statistical signal processing. Although prediction is only a part of the more general topics of linear estimation, filtering, and smoothing, this book focuses on linear prediction. This has enabled detailed discussion of a number of issues that are normally not found in texts. For example, the theory of vector linear prediction is explained in considerable detail and so is the theory of line spectral processes. This focus and its small size make the book different from many excellent texts which cover the topic, including a few that are actually dedicated to linear prediction. There are several examples and computer-based demonstrations of the theory. Applications are mentioned wherever appropriate, but the focus is not on the detailed development of these applications. The writing style is meant to be suitable for self-study as well as for classroom use at the senior and first-year graduate levels. The text is self-contained for readers with introductory exposure to signal processing, random processes, and the theory of matrices, and a historical perspective and detailed outline are given in the first chapter.Table of Contents: Introduction / The Optimal Linear Prediction Problem / Levinson's Recursion / Lattice Structures for Linear Prediction / Autoregressive Modeling / Prediction Error Bound and Spectral Flatness / Line Spectral Processes / Linear Prediction Theory for Vector Processes / Appendix A: Linear Estimation of Random Variables / B: Proof of a Property of Autocorrelations / C: Stability of the Inverse Filter / Recursion Satisfied by AR Autocorrelations

Multirate Systems: Design and Applications

Design and Applications

IGI Global Digital signal processing is an area of science and engineering that has been developed rapidly over the past years. This rapid development is the result of the significant advances in digital computer technology and integrated circuits fabrication. Many of the signal processing tasks conventionally performed by analog means are realized today by less expensive and often more reliable digital hardware. Multirate Systems: Design and Applications addresses the rapid development of multirate digital signal processing and how it is complemented by the emergence of new applications.

Research Anthology on Artificial Neural Network Applications

IGI Global Artificial neural networks (ANNs) present many benefits in analyzing complex data in a proficient manner. As an effective and efficient problem-solving method, ANNs are incredibly useful in many different fields. From education to medicine and banking to engineering, artificial neural networks are a growing phenomenon as more realize the plethora of uses and benefits they provide. Due to their complexity, it is vital for researchers to understand ANN capabilities in various fields. The Research Anthology on Artificial Neural Network Applications covers critical topics related to artificial neural networks and their multitude of applications in a number of diverse areas including medicine, finance, operations research, business, social media, security, and more. Covering everything from the applications and uses of artificial neural networks to deep learning and non-linear problems, this book is ideal for computer scientists, IT specialists, data scientists, technologists, business owners, engineers, government agencies, researchers, academicians, and students, as well as anyone who is interested in learning more about how artificial neural networks can be used across a wide range of fields.

Multirate Digital Signal Processing

Prentice Hall Intended for a one-semester advanced graduate course in digital signal processing or as a reference for practicing engineers and researchers.

Project Management

Process, Technology and Practice

Pearson Higher Ed This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Project Management: Process, Technology and Practice provides readers with

theoretical concepts, applications, the newest technology concepts, a variety of tools and processes, and practical insights to help them understand how to successfully manage projects in a wide variety of industries including software development, information technology, construction, government, pharmaceutical, manufacturing, and R&D. This first edition is packed with learning aids, real-time projects, and tools to provide plenty of hands-on practice and to prepare readers for both the PMP and CAPM certification exams.

Safety Pharmacology - Risk Assessment QT Interval Prolongation and Beyond

Frontiers Media SA Current regulatory guidelines for cardiac safety utilize hERG block and QT interval prolongation as risk markers. This strategy has been successful at preventing harmful drugs from being marketed, but criticized for leading to early withdrawal of potentially safe drugs. Here we collected a series of articles presenting new technological and conceptual advances, including refinement of ex vivo and in vitro assays, screens and models, and in silico approaches reflecting the increasing effort that has been put forward by regulatory agencies, industry, and academia to try and address the need of a more accurate, mechanistically-based paradigm of proarrhythmic potential of drugs. This Research Topic is dedicated to the memory of Dr. J. Jeremy Rice, our wonderful friend and colleague.

Logistics Operations and Management Concepts and Models

Elsevier This book provides a comprehensive overview of how to strategically manage the movement and storage of products or materials from any point in the manufacturing process to customer fulfillment. Topics covered include important tools for strategic decision making, transport, packaging, warehousing, retailing, customer services and future trends. An introduction to logistics Provides practical applications Discusses trends and new strategies in major parts of the logistic industry

Textbook of Biochemistry for Medical Students

JP Medical Ltd The seventh edition of this book is a comprehensive guide to biochemistry for medical students. Divided into six sections, the book examines in depth topics relating to chemical basics of life, metabolism, clinical and applied biochemistry, nutrition, molecular biology and hormones. New chapters have been added to this edition and each chapter includes clinical case studies to help students understand clinical relevance. A 274-page free booklet of revision exercises (9789350906378), providing essay questions, short notes, viva voce and multiple choice questions is included to help students in their exam preparation. Free online access to additional clinical cases, key concepts and an image bank is also provided. Key points Fully updated, new edition providing students with comprehensive guide to biochemistry Includes a free booklet of revision exercises and free online access Highly illustrated with nearly 1500 figures, images, tables and illustrations Previous edition published in 2010

Fractional Order Control and Synchronization of Chaotic Systems

Springer The book reports on the latest advances in and applications of fractional order control and synchronization of chaotic systems, explaining the concepts involved in a clear, matter-of-fact style. It consists of 30 original contributions written by eminent scientists and active researchers in the field that address theories, methods and applications in a number of research areas related to fractional order control and synchronization of chaotic systems, such as: fractional chaotic systems, hyperchaotic systems, complex systems, fractional order discrete chaotic systems, chaos control, chaos synchronization, jerk circuits, fractional chaotic systems with hidden attractors, neural network, fuzzy logic controllers, behavioral modeling, robust and adaptive control, sliding mode control, different types of synchronization, circuit realization of chaotic systems, etc. In addition to providing readers extensive information on chaos fundamentals, fractional calculus, fractional differential equations, fractional control and stability, the book also discusses key applications of fractional order chaotic systems, as well as multidisciplinary solutions developed via control modeling. As such, it offers the perfect reference guide for graduate students, researchers and practitioners in the areas of fractional order control systems and fractional order chaotic systems.

Bayesian Data Analysis, Third Edition

CRC Press Now in its third edition, this classic book is widely considered the leading text on Bayesian methods, lauded for its accessible, practical approach to analyzing data and solving research problems. Bayesian Data Analysis, Third Edition continues to take an applied approach to analysis using up-to-date Bayesian methods. The authors—all leaders in the statistics community—introduce basic concepts from a data-analytic perspective before presenting advanced methods. Throughout the text, numerous worked examples drawn from real applications and research emphasize the use of Bayesian inference in practice. New to the Third Edition Four new chapters on nonparametric modeling Coverage of weakly informative priors and boundary-avoiding priors Updated discussion of cross-validation and predictive information criteria Improved convergence monitoring and effective sample size calculations for iterative simulation Presentations of Hamiltonian Monte Carlo, variational Bayes, and expectation propagation New and revised software code The book can be used in three different ways. For undergraduate students, it introduces Bayesian inference

starting from first principles. For graduate students, the text presents effective current approaches to Bayesian modeling and computation in statistics and related fields. For researchers, it provides an assortment of Bayesian methods in applied statistics. Additional materials, including data sets used in the examples, solutions to selected exercises, and software instructions, are available on the book's web page.

Disease Control Priorities, Third Edition (Volume 6)

HIV/AIDS, STIS, Tuberculosis, and Malaria

Disease Control Priorities Infectious diseases are the leading cause of death globally, particularly among children and young adults. The spread of new pathogens and the threat of antimicrobial resistance pose particular challenges in combating these diseases. Major Infectious Diseases identifies feasible, cost-effective packages of interventions and strategies across delivery platforms to prevent and treat HIV/AIDS, other sexually transmitted infections, tuberculosis, malaria, adult febrile illness, viral hepatitis, and neglected tropical diseases. The volume emphasizes the need to effectively address emerging antimicrobial resistance, strengthen health systems, and increase access to care. The attainable goals are to reduce incidence, develop innovative approaches, and optimize existing tools in resource-constrained settings.

Multirate Filtering for Digital Signal Processing: MATLAB Applications

MATLAB Applications

IGI Global "This book covers basic and the advanced approaches in the design and implementation of multirate filtering"--Provided by publisher.

Retail Supply Chain Management

Quantitative Models and Empirical Studies

Springer This new edition focuses on three crucial areas of retail supply chain management: (1) empirical studies of retail supply chain practices, (2) assortment and inventory planning and (3) integrating price optimization into retail supply chain decisions. The book has been fully updated, expanding on the distinguishing features of the original, while offering three new chapters on recent topics which reflect areas of great interest and relevance to the academic and professional communities alike - inventory management in the presence of data inaccuracies, retail workforce management, and fast fashion retail strategies. The innovations, lessons for practice, and new technological solutions for managing retail supply chains are important not just in retailing, but offer crucial insights and strategies for the ultimate effective management of supply chains in other industries as well. The retail industry has emerged as a fascinating choice for researchers in the field of supply chain management. It presents a vast array of stimulating challenges that have long provided the context of much of the research in the area of operations research and inventory management. However, in recent years, advances in computing capabilities and information technologies, hyper-competition in the retail industry, emergence of multiple retail formats and distribution channels, an ever increasing trend towards a globally dispersed retail network, and a better understanding of the importance of collaboration in the extended supply chain have led to a surge in academic research on topics in retail supply chain management. Many supply chain innovations (e.g., vendor managed inventory) were first conceived and successfully validated in this industry, and have since been adopted in others. Conversely, many retailers have been quick to adopt cutting edge practices that first originated in other industries. Retail Supply Chain Management: Quantitative Models and Empirical Studies, 2nd Ed. is an attempt to summarize the state of the art in this research, as well as offer a perspective on what new applications may lie ahead.

Chaos Modeling and Control Systems Design

Springer The development of computational intelligence (CI) systems was inspired by observable and imitable aspects of intelligent activity of human being and nature. The essence of the systems based on computational intelligence is to process and interpret data of various nature so that that CI is strictly connected with the increase of available data as well as capabilities of their processing, mutually supportive factors. Developed theories of computational intelligence were quickly applied in many fields of engineering, data analysis, forecasting, biomedicine and others. They are used in images and sounds processing and identifying, signals processing, multidimensional data visualization, steering of objects, analysis of lexicographic data, requesting systems in banking, diagnostic systems, expert systems and many other practical implementations. This book consists of 15 contributed chapters by subject experts who are specialized in the various topics addressed in this book. The special chapters have been brought out in the broad areas of Control Systems, Power Electronics, Computer Science, Information Technology, modeling and engineering applications. Special importance was given to chapters offering practical solutions and novel methods for the recent research problems in the main areas of this book, viz. Control Systems, Modeling, Computer Science, IT and engineering applications. This book will serve as a reference book for graduate students and researchers with a basic knowledge of control theory, computer science and soft-computing techniques. The resulting design procedures are emphasized using Matlab/Simulink software.

bookdown

Authoring Books and Technical Documents with R Markdown

CRC Press bookdown: Authoring Books and Technical Documents with R Markdown presents a much easier way to write books and technical publications than traditional tools such as LaTeX and Word. The bookdown package inherits the simplicity of syntax and flexibility for data analysis from R Markdown, and extends R Markdown for technical writing, so that you can make better use of document elements such as figures, tables, equations, theorems, citations, and references. Similar to LaTeX, you can number and cross-reference these elements with bookdown. Your document can even include live examples so readers can interact with them while reading the book. The book can be rendered to multiple output formats, including LaTeX/PDF, HTML, EPUB, and Word, thus making it easy to put your documents online. The style and theme of these output formats can be customized. We used books and R primarily for examples in this book, but bookdown is not only for books or R. Most features introduced in this book also apply to other types of publications: journal papers, reports, dissertations, course handouts, study notes, and even novels. You do not have to use R, either. Other choices of computing languages include Python, C, C++, SQL, Bash, Stan, JavaScript, and so on, although R is best supported. You can also leave out computing, for example, to write a fiction. This book itself is an example of publishing with bookdown and R Markdown, and its source is fully available on GitHub.

A Field Guide to Genetic Programming

Lulu.com Genetic programming (GP) is a systematic, domain-independent method for getting computers to solve problems automatically starting from a high-level statement of what needs to be done. Using ideas from natural evolution, GP starts from an ooze of random computer programs, and progressively refines them through processes of mutation and sexual recombination, until high-fitness solutions emerge. All this without the user having to know or specify the form or structure of solutions in advance. GP has generated a plethora of human-competitive results and applications, including novel scientific discoveries and patentable inventions. This unique overview of this exciting technique is written by three of the most active scientists in GP. See www.gp-field-guide.org.uk for more information on the book.

Handbook of Nanoelectrochemistry

Digital Signal Processing with Field Programmable Gate Arrays

Springer Science & Business Media Starts with an overview of today's FPGA technology, devices, and tools for designing state-of-the-art DSP systems. A case study in the first chapter is the basis for more than 30 design examples throughout. The following chapters deal with computer arithmetic concepts, theory and the implementation of FIR and IIR filters, multirate digital signal processing systems, DFT and FFT algorithms, and advanced algorithms with high future potential. Each chapter contains exercises. The VERILOG source code and a glossary are given in the appendices, while the accompanying CD-ROM contains the examples in VHDL and Verilog code as well as the newest Altera "Baseline" software. This edition has a new chapter on adaptive filters, new sections on division and floating point arithmetics, an up-date to the current Altera software, and some new exercises.

Using Inertial Sensors for Position and Orientation Estimation

In recent years, microelectromechanical system (MEMS) inertial sensors (3D accelerometers and 3D gyroscopes) have become widely available due to their small size and low cost. Inertial sensor measurements are obtained at high sampling rates and can be integrated to obtain position and orientation information. These estimates are accurate on a short time scale, but suffer from integration drift over longer time scales. To overcome this issue, inertial sensors are typically combined with additional sensors and models. In this tutorial we focus on the signal processing aspects of position and orientation estimation using inertial sensors.We discuss different modeling choices and a selected number of important algorithms. The algorithms include optimization-based smoothing and filtering as well as computationally cheaper extended Kalman filter and complementary filter implementations. The quality of their estimates is illustrated using both experimental and simulated data.

Government Reports Announcements & Index

EDA for IC Implementation, Circuit Design, and Process Technology

CRC Press 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.

Essentials of Business Analytics

An Introduction to the Methodology and its Applications

Springer This comprehensive edited volume is the first of its kind, designed to serve as a textbook for long-duration business analytics programs. It can also be used as a guide to the field by practitioners. The book has contributions from experts in top universities and industry. The editors have taken extreme care to ensure continuity across the chapters. The material is organized into three parts: A) Tools, B) Models and C) Applications. In Part A, the tools used by business analysts are described in detail. In Part B, these tools are applied to construct models used to solve business problems. Part C contains detailed applications in various functional areas of business and several case studies. Supporting material can be found in the appendices that develop the pre-requisites for the main text. Every chapter has a business orientation. Typically, each chapter begins with the description of business problems that are transformed into data questions; and methodology is developed to solve these questions. Data analysis is conducted using widely used software, the output and results are clearly explained at each stage of development. These are finally transformed into a business solution. The companion website provides examples, data sets and sample code for each chapter.

The New Science of Retailing

How Analytics are Transforming the Supply Chain and Improving Performance

Harvard Business Press Retailers today are drowning in data but lacking in insight: They have huge volumes of information at their disposal. But they're unsure of how to sort through it and use it to make smart decisions. The result? They're struggling with profit-sapping supply chain problems including stock-outs, overstock, and discounting. It doesn't have to be that way. In The New Science of Retailing, supply chain experts Marshall Fisher and Ananth Raman explain how to use analytics to better manage your inventory for faster turns, fewer discounted offerings, and fatter profit margins. Featuring case studies of retailing exemplars from around the world, this practical new book shows you how to: · Mine your sales data to identify "homerun" products you're missing · Reinvent your forecasting and pricing strategies · Build end-to-end agility into your supply chain · Establish incentives that align your supply chain partners behind shared objectives · Extract maximum value from technologies such as point-of-sale scanners and customer loyalty cards Highly readable and compelling, The New Science of Retailing is your playbook for turning all that data into a wellspring for new profits and unprecedented efficiency.

Proceedings of Integrated Intelligence Enable Networks and Computing

IIENC 2020

Springer Nature This book presents best selected research papers presented at the First International Conference on Integrated Intelligence Enable Networks and Computing (IIENC 2020), held from May 25 to May 27, 2020, at the Institute of Technology, Gopeshwar, India (Government Institute of Uttarakhand Government and affiliated to Uttarakhand Technical University). The book includes papers in the field of intelligent computing. The book covers the areas of machine learning and robotics, signal processing and Internet of things, big data and renewable energy sources.

Signal Processing for Communications

Collection le savoir suisse With a novel, less classical approach to the subject, the authors have written a book with the conviction that signal processing should be taught to be fun. The treatment is therefore less focused on the mathematics and more on the conceptual aspects, the idea being to allow the readers to think about the subject at a higher conceptual level, thus building the foundations for more advanced topics. The book remains an engineering text, with the goal of helping students solve real-world problems. In this vein,

the last chapter pulls together the individual topics as discussed throughout the book into an in-depth look at the development of an end-to-end communication system, namely, a modem for communicating digital information over an analog channel.

The Political Economy of Water Pricing Reforms

Elsevier Lately our world has witnessed massive changes and reforms in various sectors in many countries, developing and developed alike. Institutional and pricing reforms in the water sector are also part of that recent trend. They are led by the recognition of a need to respond to increased scarcity and deteriorated quality. Is the water sector different than other sectors, as some claim? Should reforms in the water sector be designed and implemented differently than reforms of a similar type, in other sectors? The Political Economy of Water Pricing Reforms answers these questions by providing various analytical frameworks that allow comparison across various conditions, and by actually comparing reform processes under various conditions in different countries. This book demonstrates the common threads that characterize pricing reforms in the water sector by analyzing various aspects of the reforms in the irrigation and urban subsectors of 10 countries. Cases from Morocco, Senegal, Honduras, Belgium, Australia, Brazil, Mexico, Pakistan, Yemen, and the United States illustrate the difficulties of designing and implementing "optimal" pricing reforms and explain how reform outcomes fall short of the original objective. "This book should be on the must reading list for anyone interested in water pricing and how to reform water rights systems to achieve increased economic efficiency as well as a legitimate and equitable system of property rights." Elinor Ostrom, Co-Director, Workshop in Political Theory and Policy Analysis and Co-Director, Center for the Study of Institutions, Population, and Environmental Change, Indiana University

Topics in Matrix Analysis

Cambridge University Press Building on the foundations of its predecessor volume, Matrix Analysis, this book treats in detail several topics in matrix theory not included in the previous volume, but with important applications and of special mathematical interest. As with the previous volume, the authors assume a background knowledge of elementary linear algebra and rudimentary analytical concepts. Many examples and exercises of varying difficulty are included.

Poverty and Famines

An Essay on Entitlement and Deprivation

OUP Oxford This book focuses on the causes of starvation in general and famines in particular. The traditional analysis of famines is shown to be fundamentally defective, and the author develops an alternative analysis.

Quaternions and Rotation Sequences

A Primer with Applications to Orbits, Aerospace and Virtual Reality

Princeton University Press Ever since the Irish mathematician William Rowan Hamilton introduced quaternions in the nineteenth century--a feat he celebrated by carving the founding equations into a stone bridge--mathematicians and engineers have been fascinated by these mathematical objects. Today, they are used in applications as various as describing the geometry of spacetime, guiding the Space Shuttle, and developing computer applications in virtual reality. In this book, J. B. Kuipers introduces quaternions for scientists and engineers who have not encountered them before and shows how they can be used in a variety of practical situations. The book is primarily an exposition of the quaternion, a 4-tuple, and its primary application in a rotation operator. But Kuipers also presents the more conventional and familiar 3 x 3 (9-element) matrix rotation operator. These parallel presentations allow the reader to judge which approaches are preferable for specific applications. The volume is divided into three main parts. The opening chapters present introductory material and establish the book's terminology and notation. The next part presents the mathematical properties of quaternions, including quaternion algebra and geometry. It includes more advanced special topics in spherical trigonometry, along with an introduction to quaternion calculus and perturbation theory, required in many situations involving dynamics and kinematics. In the final section, Kuipers discusses state-of-the-art applications. He presents a six degree-of-freedom electromagnetic position and orientation transducer and concludes by discussing the computer graphics necessary for the development of applications in virtual reality.

Nanometer CMOS ICs

From Basics to ASICs

Springer This textbook provides a comprehensive, fully-updated introduction to the essentials of nanometer CMOS integrated circuits. It includes aspects of scaling to even beyond 12nm CMOS technologies and designs. It clearly describes the fundamental CMOS operating principles and presents substantial insight into the various aspects of design implementation and application. Coverage includes all associated disciplines of nanometer CMOS ICs, including physics, lithography, technology, design, memories, VLSI, power consumption, variability, reliability and signal integrity, testing, yield, failure analysis, packaging, scaling trends and road blocks. The

text is based upon in-house Philips, NXP Semiconductors, Applied Materials, ASML, IMEC, ST-Ericsson, TSMC, etc., courseware, which, to date, has been completed by more than 4500 engineers working in a large variety of related disciplines: architecture, design, test, fabrication process, packaging, failure analysis and software.

Proceedings of the International Conference on Paradigms of Computing, Communication and Data Sciences

PCCDS 2020

Springer Nature This book presents best selected papers presented at the International Conference on Paradigms of Computing, Communication and Data Sciences (PCCDS 2020), organized by National Institute of Technology, Kurukshetra, India, during 1–3 May 2020. It discusses high-quality and cutting-edge research in the areas of advanced computing, communications and data science techniques. The book is a collection of latest research articles in computation algorithm, communication and data sciences, intertwined with each other for efficiency.

Design Technology Co-Optimization in the Era of Sub-Resolution IC Scaling

SPIE-International Society for Optical Engineering "Tackle the challenges facing the most advanced technology nodes in the microelectronics industry with the help of design technology co-optimization (DTCO). This mediation process aims to ensure competitive technology architecture definition while avoiding schedule or yield risks caused by unrealistically aggressive process assumptions. Find the answers in this Tutorial Text, which reviews the fundamental design objectives as well as the resulting topological constraints of a standard cell logic design flow; cell design, placement, and routing are examined against the backdrop of ever-increasing design constraints in advanced technology nodes"--

Massive MIMO Networks

Spectral, Energy, and Hardware Efficiency

Massive MIMO Networks is the first book on the subject to cover the spatial channel correlation and consider rigorous signal processing design essential for the complete understanding by the students, practicing engineers and researchers working on modern day communication systems.

Two-Dimensional Digital Filters

CRC Press Presents basic theories, techniques, and procedures used to analyze, design, and implement two-dimensional filters; and surveys a number of applications in image and seismic data processing that demonstrate their use in real-world signal processing. For graduate students in electrical and computer e

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.

Cloherty and Stark's Manual of Neonatal Care

Lippincott Williams & Wilkins Concise and easy to read, this popular manual has provided a practical approach to the diagnosis and medical management of problems in the newborn through seven outstanding editions. The Eighth Edition of Cloherty and Stark's Manual of Neonatal Care maintains that tradition of excellence, offering NICU physicians, neonatal-perinatal fellows, residents, and neonatal nurse practitioners quick access to key clinical information, fully updated to reflect recent advances in the field. Written in an easy-access outline format, this extensively revised edition covers current, practical approaches to the evaluation and management of routine and complex conditions encountered in the fetus and the newborn.