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Privacy in Social Networks-Elena Zheleva 2013-03-01 This synthesis lecture provides a survey of work on privacy in online social networks (OSNs). This work encompasses concerns of users as well as service providers and third parties. Our goal is to approach such concerns from a computer-science perspective, and building upon existing work on privacy, security, statistical modeling and databases to provide an overview of the technical and algorithmic issues related to privacy in OSNs. We start our survey by introducing a simple OSN data model and describe common statistical-inference techniques that can be used to infer potentially sensitive information. Next, we describe some privacy definitions and privacy mechanisms for data publishing. Finally, we describe a set of recent techniques for modeling, evaluating, and managing individual users' privacy risk within the context of OSNs. Table of Contents: Introduction / A Model for Online Social Networks / Types of Privacy Disclosure / Statistical Methods for Inferring Information in Networks / Anonymity and Differential Privacy / Attacks and Privacy-preserving Mechanisms / Models of Information Sharing / Users' Privacy Risk / Management of Privacy Settings

The Analytical Theory of Heat-Jean-Baptiste-Joseph Fourier 1878

Small Business Sourcebook-Yolander A. Johnson 1998

Small Business Sourcebook-Thomson Gale 2002-12 A two-volume annotated guide to 26,670 listings of live and print sources of information designed to facilitate the start-up, development, and growth of specific small businesses, as well as 26,158 similar listings for general small business topics. An additional 11,167 entries are provided on a state-by-state basis; also included are 965 relevant U.S. federal government agencies and branch offices.

Aligning National Approaches to Digital Preservation-Nancy Y. McGovern 2012 On May 23-25, more than 125 delegates from more than 20 countries gathered in Tallinn, Estonia, for the "Aligning National Approaches to Digital Preservation" conference. At the National Library of Estonia, this group explored how to create and sustain international collaborations to support the preservation of our digital cultural memory. This publication contains a collection of peer-reviewed essays that were developed by conference panels and attendees in the months following ANADP. Rather than simply chronicling the event, the volume intends to broaden and deepen its impact by reflecting on the ANADP presentations and conversations and establishing a set of starting points for building a greater alignment across digital preservation initiatives. Above all, it highlights the need for strategic international collaborations to support the preservation of our collective cultural memory.

Matrix Information Geometry-Frank Nielsen 2012-08-07 This book presents advances in matrix and tensor data processing in the domain of signal, image and information processing. The theoretical mathematical approaches are discussed in the context of potential applications in sensor and cognitive systems engineering. The topics and application include Information Geometry, Differential Geometry of structured Matrix, Positive Definite Matrix, Covariance Matrix, Sensors (Electromagnetic Fields, Acoustic sensors) and Applications in Cognitive systems, in particular Data Mining.

A Paradigm Shift in Health Care Information Systems-Christopher G. Chute 1998

Data Quality and Record Linkage Techniques-Thomas N. Herzog 2007-05-23 This book offers a practical understanding of issues involved in improving data quality through editing, imputation, and record linkage. The first part of the book deals with methods and models, focusing on the Fellegi-Holt edit-imputation model, the Little-Rubin multiple-imputation scheme, and the Fellegi-Sunter record linkage model. The second part presents case studies in which these techniques are applied in a variety of areas, including mortgage guarantee insurance, medical, biomedical, highway safety, and social insurance as well as the construction of list frames and administrative lists. This book offers a mixture of practical advice, mathematical rigor, management insight and philosophy.

VLSI DIGITAL SIGNAL PROCESSING SYSTEMS: DESIGN AND IMPLEMENTATION-Keshab K. Parhi 2007-01-01 Market_Desc: · Students in graduate level courses· Electrical Engineers· Computer Scientists· Computer Architecture Designers· Circuit Designers· Algorithm Designers· System Designers· Computer Programmers in the Multimedia and Wireless Communications Industries· VLSI System Designers Special Features: This example-packed resource provides invaluable professional training for a rapidly-expanding industry. · Presents a variety of approaches to analysis, estimation, and reduction of power consumption in order to help designers extend battery life.· Includes application-driven problems at the end of each chapter· Features six appendices covering shortest path algorithms used in retiming, scheduling, and allocation techniques, as well as determining the iteration bound· The Author is a recognized expert in the field, having written several books, taught several graduate-level classes, and served on several IEEE boards About The Book: This book complements the other Digital Signaling Processing books in our list, which include an introductory treatment (Marven), a comprehensive handbook (Mitra), a professional reference (Kaloupsidis), and others which pertain to a specific topic such as noise control. This graduate level textbook will fill an important niche in a rapidly expanding market.

Handbook of Neural Computation-Emile Fiesler 2020-01-15 The Handbook of Neural Computation is a practical, hands-on guide to the design and implementation of neural networks used by scientists and engineers to tackle difficult and/or time-consuming problems. The handbook bridges an information pathway between scientists and engineers in different disciplines who apply neural networks to similar problems.

Mathematical Reviews- 2007

Legal Informatics-Daniel Martin Katz 2021-02-18 This groundbreaking work offers a first-of-its-kind overview of legal informatics, the academic discipline underlying the technological transformation and economics of the legal industry. Edited by Daniel Martin Katz, Ron Dolin, and Michael J. Bommarito, and featuring contributions from more than two dozen academic and industry experts, chapters cover the history and principles of legal informatics and background technical concepts - including natural language processing and distributed ledger technology. The volume also presents real-world case studies that offer important insights into document review, due diligence, compliance, case prediction, billing, negotiation and settlement, contracting, patent management, legal research, and online dispute resolution. Written for both technical and non-technical readers, Legal Informatics is the ideal resource for anyone interested in identifying, understanding, and executing opportunities in this exciting field.

Computational Photography-Ramesh Raskar 2016-05-15 Computational Photography combines plentiful computing, digital sensors, modern optics, actuators, probes, and smart lights to escape the limitations of traditional film cameras and enables novel imaging applications. This book provides a practical guide to topics in image capture and manipulation methods for generating compelling pictures for graphics, special effects, scene comprehension, and art. The computational techniques discussed cover topics in exploiting new ideas in manipulating optics, illumination, and sensors at time of capture. In addition, the authors describe sophisticated reconstruction procedures from direct and indirect pixel measurements that go well beyond the traditional digital darkroom experience.

A Field Guide to Genetic Programming- 2008 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.

Predictive Analytics-Eric Siegel 2016-01-13 "Mesmerizing & fascinating..." —The Seattle Post-Intelligencer "The Freakonomics of big data." —Stein Kretsinger, founding executive of Advertising.com Award-winning | Used by over 30 universities | Translated into 9 languages An introduction for everyone. In this rich, fascinating — surprisingly accessible — introduction, leading expert Eric Siegel reveals how predictive analytics (aka machine learning) works, and how it affects everyone every day. Rather than a “how to” for hands-on techies, the book serves lay readers and experts alike by covering new case studies and the latest state-of-the-art techniques. Prediction is booming. It reinvents industries and runs the world. Companies, governments, law enforcement, hospitals, and universities are seizing upon the power. These institutions predict whether you're going to click, buy, lie, or die. Why? For good reason: predicting human behavior combats risk, boosts sales, fortifies healthcare, streamlines manufacturing, conquers spam, optimizes social networks, toughens crime fighting, and wins elections. How? Prediction is powered by the world's most potent, flourishing unnatural resource: data. Accumulated in large part as the by-product of routine tasks, data is the unsalted, flavorless residue deposited en masse as organizations churn away. Surprise! This heap of refuse is a gold mine. Big data embodies an extraordinary wealth of experience from which to learn. Predictive analytics (aka machine learning) unleashes the power of data. With this technology, the computer literally learns from data how to predict the future behavior of individuals. Perfect prediction is not possible, but putting odds on the future drives millions of decisions more effectively, determining whom to call, mail, investigate, incarcerate, set up on a date, or medicate. In this lucid, captivating introduction — now in its Revised and Updated edition — former Columbia University professor and Predictive Analytics World founder Eric Siegel reveals the power and perils of prediction: What type of mortgage risk Chase Bank predicted before the recession. Predicting which people will drop out of school, cancel a subscription, or get divorced before they even know it themselves. Why early retirement predicts a shorter life expectancy and vegetarians miss fewer flights. Five reasons why organizations predict death — including one health insurance company. How U.S. Bank and Obama for America calculated the way to most strongly persuade each individual. Why the NSA wants all your data: machine learning supercomputers to fight terrorism. How IBM's Watson computer used predictive modeling to answer questions and beat the human champs on TV's Jeopardy! How companies ascertain untold, private truths — how Target figures out you're pregnant and Hewlett-Packard deduces you're about to quit your job. How judges and parole boards rely on crime-predicting computers to decide how long convicts remain in prison. 182 examples from Airbnb, the BBC, Citibank, ConEd, Facebook, Ford, Google, the IRS, LinkedIn, Match.com, MTV, Netflix, PayPal, Pfizer, Spotify, Uber, UPS, Wikipedia, and more. How does predictive analytics work? This jam-packed book satisfies by demystifying the intriguing science under the hood. For future hands-on practitioners pursuing a career in the field, it sets a strong foundation, delivers the prerequisite knowledge, and whets your appetite for more. A truly omnipresent science, predictive analytics constantly affects our daily lives. Whether you are a consumer of it — or consumed by it — get a handle on the power of Predictive Analytics.

The SAGE Handbook of Remote Sensing-Timothy A Warner 2009-06-18 'A magnificent achievement. A who's who of contemporary remote sensing have produced an engaging, wide-ranging and scholarly review of the field in just one volume' - Professor Paul Curran, Vice-Chancellor, Bournemouth University Remote Sensing acquires and interprets small or large-scale data about the Earth from a distance. Using a wide range of spatial, spectral, temporal, and radiometric scales Remote Sensing is a large and diverse field for which this Handbook will be the key research reference. Organized in four key sections: • Interactions of Electromagnetic Radiation with the Terrestrial Environment: chapters on Visible, Near-IR and Shortwave IR; Middle IR (3-5 micrometers); Thermal IR ; Microwave • Digital sensors and Image Characteristics: chapters on Sensor Technology; Coarse Spatial Resolution Optical Sensors ; Medium Spatial Resolution Optical Sensors; Fine Spatial Resolution Optical Sensors; Video Imaging and Multispectral Digital Photography; Hyperspectral Sensors; Radar and Passive Microwave Sensors; Lidar • Remote Sensing Analysis - Design and Implementation: chapters on Image Pre-Processing; Ground Data Collection; Integration with GIS; Quantitative Models in Remote Sensing; Validation and accuracy assessment; • Remote Sensing Analysis - Applications: LITHOSPHERIC SCIENCES: chapters on Topography; Geology; Soils; PLANT SCIENCES: Vegetation; Agriculture; HYDROSPHERIC and CRYOSPHERIC SCIENCES: Hydrosphere: Fresh and Ocean Water; Cryosphere; GLOBAL CHANGE AND HUMAN ENVIRONMENTS: Earth Systems; Human Environments & Links to the Social Sciences; Real Time Monitoring Systems and Disaster Management; Land Cover Change Illustrated throughout, an essential resource for the analysis of remotely sensed data, the SAGE Handbook of Remote Sensing provides researchers with a definitive statement of the core concepts and methodologies in the discipline.

Information Technology and Mobile Communication-Vinu V Das 2011-04-13 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 Libraries: Knowledge, Information, and Data in an Open Access Society-Atsuyuki Morishima 2016-11-24 This book constitutes the refereed proceedings of the 18th International Conference on Asia-Pacific Digital Libraries, ICADL 2016, held in Tsukuba, Japan, in December 2016. The 18 full papers, 17 work-in-progress papers and 7 practitioner papers presented were carefully reviewed and selected from 71 submissions. The papers cover topics such as community informatics, digital heritage preservation, digital curation, models and guidelines, information retrieval/integration/extraction/recommendation, privacy, education and digital literacy, open access and data, and information access design.

Memory Systems-Bruce Jacob 2010-07-28 Is your memory hierarchy stopping your microprocessor from performing at the high level it should be? Memory Systems: Cache, DRAM, Disk shows you how to resolve this problem. The book tells you everything you need to know about the logical design and operation, physical design and operation, performance characteristics and resulting design trade-offs, and the energy consumption of modern memory hierarchies. You learn how to tackle the challenging optimization problems that result from the side-effects that can appear at any point in the entire hierarchy. As a result you will be able to design and emulate the entire memory hierarchy. Understand all levels of the system hierarchy -Xcache, DRAM, and disk. Evaluate the system-level effects of all design choices. Model performance and energy consumption for each component in the memory hierarchy.

Handbook of Hardware/Software Codesign-Soonhoi Ha 2018-02-25 This handbook presents fundamental knowledge on the hardware/software (HW/SW) codesign methodology. Contributing expert authors look at key techniques in the design flow as well as selected codesign tools and design environments, building on basic knowledge to consider the latest techniques. The book enables readers to gain real benefits from the HW/SW codesign methodology through explanations and case studies which demonstrate its usefulness. Readers are invited to follow the progress of design techniques through this work, which assists readers in following current research directions and learning about state-of-the-art techniques. Students and researchers will appreciate the wide spectrum of subjects that belong to the design methodology from this handbook.

UbiComp 2001: Ubiquitous Computing-Gregory D. Abowd 2003-06-30 This book constitutes the refereed proceedings of the Third International Conference on Ubiquitous Computing, UbiComp 2001, held in Atlanta, GA, USA in September/October 2001. The 14 revised full papers and 15 revised technical notes were carefully selected during a highly competitive reviewing process from a total of 160 submissions (90 paper submissions and 70 technical notes submissions). All current aspects of research and development in the booming area of

ubiquitous computing are addressed. The book offers topical sections on location awareness, tools and infrastructure, applications for groups, applications and design spaces, research challenges and novel input, and output.

World Meetings- 1992

Discover Digital Libraries-Iris Xie 2016-07-26 Discover Digital Libraries: Theory and Practice is a book that integrates both research and practice concerning digital library development, use, preservation, and evaluation. The combination of current research and practical guidelines is a unique strength of this book. The authors bring in-depth expertise on different digital library issues and synthesize theoretical and practical perspectives relevant to researchers, practitioners, and students. The book presents a comprehensive overview of the different approaches and tools for digital library development, including discussions of the social and legal issues associated with digital libraries. Readers will find current research and the best practices of digital libraries, providing both US and international perspectives on the development of digital libraries and their components, including collection, digitization, metadata, interface design, sustainability, preservation, retrieval, and evaluation of digital libraries. Offers an overview of digital libraries and the conceptual and practical understanding of digital libraries Presents the lifecycle of digital library design, use, preservation and evaluation, including collection development, digitization of static and multimedia resources, metadata, digital library development and interface design, digital information searching, digital preservation, and digital library evaluation Synthesizes current research and the best practices of digital libraries, providing both US and international perspectives on the development of digital libraries Introduces new developments in the area of digital libraries, such as large-scale digital libraries, social media applications in digital libraries, multilingual digital libraries, digital curation, linked data, rapid capture, guidelines for the digitization of multimedia resources Highlights the impact, challenges, suggestions for overcoming these challenges, and trends of present and future development of digital libraries Offers a comprehensive bibliography for each chapter

Climate and Conservation-Jodi A. Hilty 2012-06-11 Climate and Conservation presents case studies from around the world of leading-edge projects focused on climate change adaptation-regional-scale endeavors where scientists, managers, and practitioners are working to protect biodiversity by protecting landscapes and seascapes in response to threats posed by climate change. The book begins with an introductory section that frames the issues and takes a systematic look at planning for climate change adaptation. Thenineteen chapters that follow examine particular case studies in every part of the world, including landscapes and seascapes from equatorial, temperate, montane, polar, and marine and freshwater regions. Projects profiled range from North American grasslands to boreal forests to coral reefs to Alpine freshwater environments. Chapter authors have extensive experience in their respective regions and are actively engaged in working on climate-related issues. The result is a collection of geographical case studies that allows for effective cross-comparison while at the same time recognizing the uniqueness of each situation and locale. Climate and Conservation offers readers tangible, place-based examples of projects designed to protect large landscapes as a means of conserving biodiversity in the face of the looming threat of global climate change. It informs readers of how a diverse set of conservation actors have been responding to climate change at a scale that matches the problem, and is an essential contribution for anyone involved with large-scale biodiversity conservation.

Integration of Information for Environmental Security-H. Gonca Coskun 2008-10-28 Water management and disasters, including droughts and floods are becoming very important subjects in the international platforms. This book will provide information about high technology techniques to solve important problems using remote sensing and GIS for topics such as the environmental security, water resources management, disaster forecast and prevention and information security.

Motion Deblurring-A. N. Rajagopalan 2014-05-08 Comprehensive guide to the restoration of images degraded by motion blur, encompassing algorithms and architectures, with novel computational photography methods.

Mobile Technology for Children-Allison Druin 2009-03-16 Children are one of the largest new user groups of mobile technology -- from phones to micro-laptops to electronic toys. These products are both lauded and criticized, especially when it comes to their role in education and learning. The need has never been greater to understand how these technologies are being designed and to evaluate their impact worldwide. Mobile Technology for Children brings together contributions from leaders in industry, non-profit organizations, and academia to offer practical solutions for the design and the future of mobile technology for children. *First book to present a multitude of voices on the design, technology, and impact of mobile devices for children and learning *Features contributions from leading academics, designers, and policy makers from nine countries, whose affiliations include Sesame Workshop, LeapFrog Enterprises, Intel, the United Nations, and UNICEF *Each contribution and case study is followed by a best practice overview to help readers consider their own research and design and for a quick reference

Reconstructing Ancient Landscape-Sofia Pescarin 2009 This book serves as an up-to-date manual for the ever evolving discipline of digital landscape reconstruction, and shows how digital tools can used in the interpretation of archaeological data related to past landscapes. It draws on the work of the Italian National Research Councils Lab in Virtual Heritage, illustrating its points with case studies from their research.

Recurrent Neural Networks-Larry Medsker 1999-12-20 With existent uses ranging from motion detection to music synthesis to financial forecasting, recurrent neural networks have generated widespread attention. The tremendous interest in these networks drives Recurrent Neural Networks: Design and Applications, a summary of the design, applications, current research, and challenges of this subfield of artificial neural networks. This overview incorporates every aspect of recurrent neural networks. It outlines the wide variety of complex learning techniques and associated research projects. Each chapter addresses architectures, from fully connected to partially connected, including recurrent multilayer feedforward. It presents problems involving trajectories, control systems, and robotics, as well as RNN use in chaotic systems. The authors also share their expert knowledge of ideas for alternate designs and advances in theoretical aspects. The dynamical behavior of recurrent neural networks is useful for solving problems in science, engineering, and business. This approach will yield huge advances in the coming years. Recurrent Neural Networks illuminates the opportunities and provides you with a broad view of the current events in this rich field.

Constrained Clustering-Sugato Basu 2008-08-18 Since the initial work on constrained clustering, there have been numerous advances in methods, applications, and our understanding of the theoretical properties of constraints and constrained clustering algorithms. Bringing these developments together, Constrained Clustering: Advances in Algorithms, Theory, and Applications presents an extensive collection of the latest innovations in clustering data analysis methods that use background knowledge encoded as constraints. Algorithms The first five chapters of this volume investigate advances in the use of instance-level, pairwise constraints for partitional and hierarchical clustering. The book then explores other types of constraints for clustering, including cluster size balancing, minimum cluster size, and cluster-level relational constraints. Theory It also describes variations of the traditional clustering under constraints problem as well as approximation algorithms with helpful performance guarantees. Applications The book ends by applying clustering with constraints to relational data, privacy-preserving data publishing, and video surveillance data. It discusses an interactive visual clustering approach, a distance metric learning approach, existential constraints, and automatically generated constraints. With contributions from industrial researchers and leading academic experts who pioneered the field, this volume delivers thorough coverage of the capabilities and limitations of constrained clustering methods as well as introduces new types of constraints and clustering algorithms.

Government Reports Announcements & Index- 1991

Active Perception-Yiannis Aloimonos 2013-05-13 This book defines the emerging field of Active Perception which calls for studying perception coupled with action. It is devoted to technical problems related to the design and analysis of intelligent systems possessing perception such as the existing biological organisms and the "seeing" machines of the future. Since the appearance of the first technical results on active vision, researchers began to realize that perception -- and intelligence in general -- is not transcendental and disembodied. It is becoming clear that in the effort to build intelligent visual systems, consideration must be given to the fact that perception is intimately related to the physiology of the perceiver and the tasks that it performs. This viewpoint --

known as Purposeive, Qualitative, or Animate Vision -- is the natural evolution of the principles of Active Vision. The seven chapters in this volume present various aspects of active perception, ranging from general principles and methodological matters to technical issues related to navigation, manipulation, recognition, learning, planning, reasoning, and topics related to the neurophysiology of intelligent systems.

Springer Handbook of Acoustics-Thomas Rossing 2007-06-21 This is an unparalleled modern handbook reflecting the richly interdisciplinary nature of acoustics edited by an acknowledged master in the field. The handbook reviews the most important areas of the subject, with emphasis on current research. The authors of the various chapters are all experts in their fields. Each chapter is richly illustrated with figures and tables. The latest research and applications are incorporated throughout, including computer recognition and synthesis of speech, physiological acoustics, diagnostic imaging and therapeutic applications and acoustical oceanography. An accompanying CD-ROM contains audio and video files.

Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development-Ephraim Nkonya 2015-11-11 This volume deals with land degradation, which is occurring in almost all terrestrial biomes and agro-ecologies, in both low and high income countries and is stretching to about 30% of the total global land area. About three billion people reside in these degraded lands. However, the impact of land degradation is especially severe on livelihoods of the poor who heavily depend on natural resources. The annual global cost of land degradation due to land use and cover change (LUCC) and lower cropland and rangeland productivity is estimated to be about 300 billion USD. Sub-Saharan Africa (SSA) accounts for the largest share (22%) of the total global cost of land degradation. Only about 38% of the cost of land degradation due to LUCC - which accounts for 78% of the US\$300 billion loss - is borne by land users and the remaining share (62%) is borne by consumers of ecosystem services off the farm. The results in this volume indicate that reversing land degradation trends makes both economic sense, and has multiple social and environmental benefits. On average, one US dollar investment into restoration of degraded land returns five US dollars. The findings of the country case studies call for increased investments into the rehabilitation and restoration of degraded lands, including through such institutional and policy measures as strengthening community participation for sustainable land management, enhancing government effectiveness and rule of law, improving access to markets and rural services, and securing land tenure. The assessment in this volume has been conducted at a time when there is an elevated interest in private land investments and when global efforts to achieve sustainable development objectives have intensified. In this regard, the results of this volume can contribute significantly to the ongoing policy debate and efforts to design strategies for achieving sustainable development goals and related efforts to address land degradation and halt biodiversity loss.

Directory of Published Proceedings- 1997

Unconstrained Face Recognition-Shaohua Kevin Zhou 2006-10-11 Face recognition has been actively studied over the past decade and continues to be a big research challenge. Just recently, researchers have begun to investigate face recognition under unconstrained conditions. Unconstrained Face Recognition provides a comprehensive review of this biometric, especially face recognition from video, assembling a collection of novel approaches that are able to recognize human faces under various unconstrained situations. The underlying basis of these approaches is that, unlike conventional face recognition algorithms, they exploit the inherent characteristics of the unconstrained situation and thus improve the recognition performance when compared with conventional algorithms. Unconstrained Face Recognition is structured to meet the needs of a professional audience of researchers and practitioners in industry. This volume is also suitable for advanced-level students in computer science.

Embedded Multiprocessors-Sundararajan Sriram 2018-10-03 Techniques for Optimizing Multiprocessor Implementations of Signal Processing Applications An indispensable component of the information age, signal processing is embedded in a variety of consumer devices, including cell phones and digital television, as well as in communication infrastructure, such as media servers and cellular base stations. Multiple programmable processors, along with custom hardware running in parallel, are needed to achieve the computation throughput required of such applications. Reviews important research in key areas related to the multiprocessor implementation of multimedia systems Embedded Multiprocessors: Scheduling and Synchronization, Second Edition presents architectures and design methodologies for parallel systems in embedded digital signal processing (DSP) applications. It discusses application modeling techniques for multimedia systems, the incorporation of interprocessor communication costs into multiprocessor scheduling decisions, and a modeling methodology (the synchronization graph) for multiprocessor system performance analysis. The book also applies the synchronization graph model to develop hardware and software optimizations that can significantly reduce the interprocessor communication overhead of a given schedule. Chronicles recent activity dealing with single-chip multiprocessors and dataflow models This edition updates the background material on existing embedded multiprocessors, including single-chip multiprocessors. It also summarizes the new research on dataflow models for signal processing that has been carried out since the publication of the first edition. Harness the power of multiprocessors This book explores the optimization of interprocessor communication and synchronization in embedded multiprocessor systems. It shows you how to design multiprocessor computer systems that are streamlined for multimedia applications.

Satellite Remote Sensing-Rosa Lasaponara 2012-01-18 This book provides a state-of-the art overview of satellite archaeology and it is an invaluable volume for archaeologists, scientists, and managers interested in using satellite Earth Observation (EO) to improve the traditional approach for archaeological investigation, protection and management of Cultural Heritage. The recent increasing development of EO techniques and the tremendous advances in Information and Communication Technologies (ICT) have resulted primarily in Cultural Heritage applications. The book focuses on new challenging prospects for the use of EO in archaeology not only for probing the subsurface to unveil sites and artifacts, but also for the management and valorization as well as for the monitoring and preservation of cultural resources. The book provides a first-class understanding of this revolutionary scenario which was unthinkable several years ago. The book offers: (i) an excellent collection of outstanding articles focusing on satellite data processing, analysis and interpretation for archaeological applications. (ii) impressive case studies, (iii) striking examples of the high potential of the integration of multi-temporal, multi-scale, multi-sensors techniques. Each chapter is composed as an authoritative contribution to help the reader grasp the value of its content. The authors are renowned experts from the international scientific community. Audience: This book will be of interest to scientists in remote sensing applied to archeology, geoarcheology, paleo-environment, paleo-climate and cultural heritage.

Advanced Computing, Networking and Security-P. Santhi Thilagam 2012-04-02 This book constitutes revised selected papers from the International Conference on Advanced Computing, Networking and Security, ADCONS 2011, held in Surathkal, India, in December 2011. The 73 papers included in this book were carefully reviewed and selected from 289 submissions. The papers are organized in topical sections on distributed computing, image processing, pattern recognition, applied algorithms, wireless networking, sensor networks, network infrastructure, cryptography, Web security, and application security.

Synthetic Aperture Radar Signal Processing with MATLAB Algorithms-Mehrdad Soumekh 1999-04-27 An up-to-date analysis of the SAR wavefront reconstruction signal theory and its digital implementation With the advent of fast computing and digital information processing techniques, synthetic aperture radar (SAR) technology has become both more powerful and more accurate. Synthetic Aperture Radar Signal Processing with MATLAB Algorithms addresses these recent developments, providing a complete, up-to-date analysis of SAR and its associated digital signal processing algorithms. This book introduces the wavefront reconstruction signal theory that underlies the best SAR imaging methods and provides clear guidelines to system design, implementation, and applications in diverse areas-from airborne reconnaissance to topographic imaging of ocean floors to surveillance and air traffic control to medical imaging techniques, and numerous others. Enabling professionals in radar signal and image processing to use synthetic aperture technology to its fullest potential, this work: * Includes M-files to supplement this book that can be retrieved from The MathWorks anonymous FTP server at ftp://ftp.mathworks.com/pub/books/soumekh * Provides practical examples and results from real SAR, ISAR, and CSAR databases * Outlines unique properties of the SAR signal that cannot be found in other information processing systems * Examines spotlight SAR, stripmap SAR, circular SAR, and monopulse SAR modalities * Discusses classical SAR processing issues such as motion compensation and radar calibration