Embedded Sensor Systems Hardcover Dharma Prakash

The book covers the most recent developments in machine learning, signal analysis, and their applications. It covers the topics of machine intelligence such as: deep learning, soft computing approaches, support vector machines (SVMs), least square SVMs (LSSVMs) and their variants; and covers the topics of signal analysis such as: biomedical signals including electroencephalogram (EEG), magnetoencephalography (MEG), electrocardiogram (ECG) and electromyogram (EMG) as well as other signals such as speech signals, communication signals, vibration signals, image, and video. Further, it analyzes normal and abnormal categories of real-world signals, for example normal and epileptic EEG signals using numerous classification techniques. The book is envisioned for researchers and graduate students in Computer Science and Engineering, Electrical Engineering, Applied Mathematics, and Biomedical Signal Processing.

Introduction to Computing Systems: From bits & gates to C & beyond, now in its second edition, is designed to give students a better understanding of computing early in their college careers in order to give them a stronger foundation for later courses. The book is in two parts: (a) the underlying structure of a computer, and (b) programming in a high level language and programming methodology. To understand the computer, the authors introduce the LC-3 and provide the LC-3 Simulator to give students hands-on access for testing what they learn. To develop their understanding of programming and programming methodology, they use the C programming language. The book takes a "motivated" bottom-up approach, where the students first get exposed to the big picture and then start at the bottom and build their knowledge bottom-up. Within each smaller unit, the same motivated bottom-up approach is followed. Every step of the way, students learn new things, building on what they already know. The authors feel that this approach encourages deeper understanding and downplays the need for memorizing. Students develop a greater breadth of understanding, since they see how the various parts of the computer fit together.

Agriculture is one of the most fundamental human activities. As the farming capacity has expanded, the usage of resources such as land, fertilizer, and water has grown exponentially, and environmental pressures from modern farming techniques have stressed natural landscapes. Still, by some estimates, worldwide food production needs to increase to keep up with global food demand. Machine Learning and the Internet of Things can play a promising role in the Agricultural industry, and help to increase food production while respecting the environment. This book explains how these technologies can be applied, offering many case studies developed in the research world.

Scalable parallel systems or, more generally, distributed memory systems offer a challenging model of computing and pose fascinating problems regarding compiler optimization, ranging from language design to run time systems. Research in this area is foundational to many challenges from memory hierarchy optimizations to communication optimization. This unique, handbook-like monograph assesses the state of the art in the area in a systematic and comprehensive way. The 21 coherent chapters by leading researchers provide complete and competent coverage of all relevant aspects of compiler optimization for scalable parallel systems. The book is divided into five parts on languages, analysis, communication optimizations, code generation, and run time systems. This book will serve as a landmark source for education, information, and reference to students, practitioners, professionals, and researchers interested in updating their knowledge about or active in parallel computing.

Satellite Communications Systems Engineering

Internet of Things and Machine Learning in Agriculture

Wireless Sensor Networks and Applications

Introduction to Wireless and Mobile Systems

Recent Advances in Modeling and Simulation Tools for Communication Networks and Services

Computer and Cyber Security

Concepts, Methodologies, Tools, and Applications

This book provides eloquent support for the idea that spontaneous neuron activity, far from being mere noise, is actually the source of our cognitive abilities. In a sequence of "cycles," György Buzsáki guides the reader from the physics of oscillations through neuronal assembly organization to complex cognitive processing and memory storage. His clear, fluid writing-accessible to any reader with some scientific knowledge-is supplemented by extensive footnotes and references that make it just as gratifying and instructive a read for the specialist. The coherent view of a single author who has been at the forefront of research in this exciting field, this volume is essential reading for anyone interested in our rapidly evolving understanding of the brain.

Unlike traditional information systems which work by issuing requests and waiting for responses, event-driven systems are designed to process events as they occur, allowing the system to observe, react dynamically, and issue personalized data depending on the recipient and situation. Event Processing in Action introduces the major concepts of event-driven architectures and shows how to use, design, and build event processing systems and applications. Written for working software architects and developers, the book looks at practical examples and provides an in-depth explanation of their architecture and implementation. Since patterns connect the events that occur in any system, the book also presents common event-driven patterns and explains how to detect and implement them. Throughout the book, readers follow a comprehensive use case that incorporates all event processing programming styles in practice today. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

This is a monumental reference for the theory and practice of computer security. Comprehensive in scope, this text covers applied and practical elements, theory, and the reasons for the design of applications and security techniques. It covers both the management and the engineering issues of computer security. It provides excellent examples of ideas and mechanisms that demonstrate how disparate techniques and principles are combined in widely-used systems. This book is acclaimed for its scope, clear and lucid writing, and its combination of formal and theoretical aspects with real systems, technologies, techniques, and policies.

The science behind global warming, and its history: how scientists learned to understand the atmosphere, to measure it, to trace its past, and to model its future. Global warming skeptics often fall back on the argument that the scientific case for global warming is all model predictions, nothing but simulation; they warn us that we need to wait for real data, "sound science." In A Vast Machine Paul Edwards has news for these skeptics: without models, there are no data. Today, no collection of signals or observations—even from satellites, which can "see" the whole planet with a single instrument—becomes global in time and space without passing through a series of data models. Everything we know about the world's climate we know through models. Edwards offers an engaging and innovative history of how scientists learned to understand the atmosphere—to measure it, trace its past, and model its future.

Symbiosis of Adaptive Value Networks and ICT

Fiftieth Anniversary Edition

4th EAI International Conference, InterSol 2020, Nairobi, Kenya, March 8-9, 2020, Proceedings

The Internet of People for a Post-oil World

Texts and Contexts in Zen Buddhism

Machine Intelligence and Signal Processing

The Spell of the Sensuous

This book is a collection of outstanding papers presented at the 1st International Conference on Advances in Computational Intelligence and Informatics (ICACII 2019), organized by the Department of Computer Science & Engineering, Anurag Group of Institutions (AGI), Hyderabad, on 20–21 December 2019. It includes innovative ideas and new research findings in the field of Computational Intelligence and Informatics that will benefit researchers, scientists, technocrats, academics and engineers alike. The areas covered include high-performance systems, data science and analytics, computational intelligence and expert systems, cloud computing, computer networks and emerging technologies.

Koans are enigmatic spiritual formulas used for religious training in the Zen Buddhist tradition. Arguing that our understanding of the koan tradition has been severely limited, contributors to this collection examine previously unrecognized factors in the formation of this tradition, and highlight the rich complexity and diversity of koan practice and literature.

In the last half of the twentieth century industry encountered a revolutionary change brought about by the harnessed power of seemingly ever-increasing capacity, speed and functionality of computers and microprocessors. This strength provided management and workers within industries with new capabilities for management, planning and control, design, quality assurance and customer support. Organized information flow became the mainstay of industrial companies. New tools and information technology systems emerged and evolved to enable companies to integrate the various departments (Design, Procurement, Manufacturing, Sales and Finance) within companies, particularly the lager ones, including international corporations. This was to give them a chance to meet new demands for product time to market, just in time supply of orders, and customer support. To the smaller company these changes were not so apparent. Neither the tools nor systems nor indeed their economic value seemed appropriate to them except for special cases. While all this was happening the structure of the larger companies began to disintegrate. Strong competitive pressures and globalization of the market place brought this about. Shedding unwanted competence and subcontracting it to others became common practice. Regional market pressures triggered companies to reorganize to create, produce, and distribute goods and services. Greater dependency on chains of supply from external companies became the norm. Medium and smaller sized companies began to gain some advantage and at the same time some were sucked into management and control systems governed by the larger companies. "Trebor Scholz and Laura Y. Liu reflect on the relationship between labor and technology in urban space where communication, attention, and physical movement generate financial value for a small number of private stakeholders. Online and off, Internet users are increasingly wielded as a resource for economic amelioration, for private capture, and the channels of communication are becoming increasingly inscrutable. Liu and Scholz ask: How does the intertwining of labor and play complicate our understanding of exploitation?"--Publisher's Web site.

Ad Hoc and Sensor Networks

Technological Impacts and Challenges

Carbon Yoga

A Networking Perspective

Wireless Sensor and Actuator Networks for Smart Cities

Handbook of Research on Cloud Computing and Big Data Applications in IoT

Principles and Paradigms

This book contains a selection of papers presented at a symposium organized under the aegis of COST Telecommunications Action 285. COST (European Cooperation in the field of Scientific and Technical Research) is a framework for scientific and technical cooperation, allowing the coordination of national research on a European level. Action 285 sought to enhance existing tools and develop new modeling and simulation tools.

This inspiring textbook provides an essential introduction to wireless technologies for sensors, explores the potential use of sensors for numerous applications, and utilizes probability theory and mathematical methods as a means of embedding sensors in system design. The book discusses the need for synchronization and underlying limitations, the interrelation between given coverage and connectivity to the number of sensors needed, and the use of geometrical distance to determine the location of the base station for data collection, while also exploring the use of anchor nodes to determine the relative positions of sensors. The book addresses energy conservation, communication using TCP, the need for clustering and data aggregation, and residual energy determination and energy harvesting, together with key topics in sensor communication like mobile base stations and relay nodes, delay-tolerant sensor networks, and remote sensing and potential applications. The book defines routing methods and performance evaluation for random and regular sensor topology and covers sensor-based intrusion detection. The book focuses on applications such as interaction with actuators, final design with respect to a given application, personal and body-area networks for health-care applications and sensor networks as an integral component of the IoT. The importance of both coverage and connectivity is examined thoroughly in both randomly deployed sensor networks for defense applications and regularly placed sensors for an industrial setup. The content includes exercises as well as design-based project concepts. The book's comprehensive coverage makes it well suited for use as a textbook for graduate and upper undergraduate courses, or as course material for professional courses.

Big Data Application in Power Systems brings together experts from academia, industry and regulatory agencies who share their understanding and discuss the big data analytics applications for power systems diagnostics, operation and control. Recent developments in monitoring systems and sensor networks dramatically increase the variety, volume and velocity of measurement data in electricity transmission and distribution level. The book focuses on rapidly modernizing monitoring systems, measurement data availability, big data handling and machine learning approaches to process high dimensional, heterogeneous and spatiotemporal data. The book chapters discuss challenges, opportunities, success stories and pathways for utilizing big data value in smart grids. Provides expert analysis of the latest developments by global authorities Contains detailed references for further reading and extended research Provides additional cross-disciplinary lessons learned from broad disciplines such as statistics, computer science and bioinformatics Focuses on rapidly modernizing monitoring systems, measurement data availability, big data handling and machine learning approaches to process high dimensional, heterogeneous and spatiotemporal data

Wireless Network Security Theories and Applications discusses the relevant security technologies, vulnerabilities, and potential threats, and introduces the corresponding security standards and protocols, as well as provides solutions to security concerns. Authors of each chapter in this book, mostly top researchers in relevant research fields in the U.S. and China, presented their research findings and results about the security of the following types of wireless networks: Wireless Cellular Networks, Wireless Local Area Networks (WLANs), Wireless Metropolitan Area Networks (WMANs), Bluetooth Networks and Communications, Vehicular Ad Hoc Networks (VANETs), Wireless Sensor Networks (WSNs), Wireless Mesh Networks (WMNs), and Radio Frequency Identification (RFID). The audience of this book may include professors, researchers, graduate students, and professionals in the areas of Wireless Networks, Network Security and Information Security, Information Privacy and Assurance, as well as Digital Forensics. Lei Chen is an Assistant Professor at Sam Houston State University, USA; Jiahuang Ji is an Associate Professor at Sam Houston State University, USA; Zihong Zhang is a Sr. software engineer at Jacobs Technology, USA under NASA contract.

Proceedings of International Conference on Artificial Intelligence, Smart Grid and Smart City Applications

The Virtual Community, revised edition

A Vast Machine

Machine Intelligence and Signal Analysis

Rhythms of the Brain

Expanded Cinema

Advances in Computational Intelligence and Informatics

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Advances in technology continue to alter the ways in which we conduct our lives, from the private sphere to how we interact with others in public. As these innovations become more integrated into modern society, their
applications become increasingly relevant in various facets of life. Wearable Technologies: Concepts, Methodologies, Tools, and Applications is a comprehensive reference source for the latest scholarly material on the
development and implementation of wearables within various environments, emphasizing the valuable resources offered by these advances. Highlighting a range of pertinent topics, such as assistive technologies, data
storage, and health and fitness applications, this multi-volume book is ideally designed for researchers, academics, professionals, students, and practitioners interested in the emerging applications of wearable
technologies.
Due to the complexity, and heterogeneity of the smart grid and the high volume of information to be processed, artificial intelligence techniques and computational intelligence appear to be some of the enabling
technologies for its future development and success. The theme of the book is "Making pathway for the grid of future" with the emphasis on trends in Smart Grid, renewable interconnection issues, planning-operation-control
and reliability of grid, real time monitoring and protection, market, distributed generation and power distribution issues, power electronics applications, computer-IT and signal processing applications, power apparatus,
power engineering education and industry-institute collaboration. The primary objective of the book is to review the current state of the art of the most relevant artificial intelligence techniques applied to the
different issues that arise in the smart grid development.
A crucial reference tool for the increasing number of scientists who depend upon sensor networks in a widening variety of ways. Coverage includes network design and modeling, network management, data management, security
and applications. The topic covered in each chapter receives expository as well as scholarly treatment, covering its history, reviewing state-of-the-art thinking relative to the topic, and discussing currently unsolved
problems of special interest.
Internet usage has become a facet of everyday life, especially as more technological advances have made it easier to connect to the web from virtually anywhere in the developed world. However, with this increased usage
comes heightened threats to security within digital environments. The Handbook of Research on Modern Cryptographic Solutions for Computer and Cyber Security identifies emergent research and techniques being utilized in
the field of cryptology and cyber threat prevention. Featuring theoretical perspectives, best practices, and future research directions, this handbook of research is a vital resource for professionals, researchers,
faculty members, scientists, graduate students, scholars, and software developers interested in threat identification and prevention.
Arm System-On-Chip Architecture, 2/E
Learning Automata
The Koan
Wireless Network Security
Perception and Language in a More-Than-Human World
Theory and Design of Wireless Ad Hoc, Sensor, and Mesh Networks
Innovations and Interdisciplinary Solutions for Underserved Areas
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This text explains the general principles of how wireless systems work, how mobility is supported, what the underlying infrastructure is and what interactions are needed among different functional components. Designed as a textbook appropriate for undergraduate or graduate courses in Computer Science (CS), Computer Engineering (CE), and Electrical Engineering (EE), Introduction to Wireless and Mobile Systems third edition focuses on qualitative descriptions and the realistic explanations of relationships between wireless systems and performance parameters. Rather than offering a thorough history behind the development of wireless technologies or an exhaustive list of work being carried out, the authors help CS, CE, and EE students learn this exciting technology through relevant examples such as understanding how a cell phone starts working as soon as they get out of an airplane. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Learn the fundamental concepts, major challenges, and effective solutions in wireless sensor networking This book provides a comprehensive and systematic introduction to the fundamental concepts, major challenges, and effective solutions in wireless sensor networking (WSN). Distinguished from other books, it focuses on the networking aspects of WSNs and covers the most important networking issues, including network architecture design, medium access control, routing and data dissemination, node clustering, node localization, query processing, data aggregation, transport and quality of service, time synchronization, network security, and sensor network standards. With contributions from internationally renowned researchers, Wireless Sensor Networks expertly strikes a balance between fundamental concepts and state-of-the-art technologies, providing readers with unprecedented insights into WSNs from a networking perspective. It is essential reading for a broad audience, including academic researchers, research engineers, and practitioners in industry. It is also suitable as a textbook or supplementary reading for electrical engineering, computer engineering, and computer science courses at the graduate level.

This book constitutes the refereed post-conference proceedings of the 4th EAI International Conference on Innovations and Interdisciplinary Solutions for Underserved Areas, InterSol 2020, held in Nairobi, Kenya, in March 2020. Due to the COVID-19 pandemic the conference is postponed to a later date in 2020. The 20 papers presented were selected from 50 submissions and issue different problems in underserved and unserved areas. They face problems in almost all sectors such as energy, water, communication, climate, food, education, transportation, social development, and economic growth.

Winner of the International Lannan Literary Award for Nonfiction Animal tracks, word magic, the speech of stones, the power of letters, and the taste of the wind all figure prominently in this intellectual tour de force that returns us to our senses and to the sensuous terrain that sustains us. This major work of ecological philosophy startles the senses out of habitual ways of perception. For a thousand generations, human beings viewed themselves as part of the wider community of nature, and they carried on active relationships not only with other people within other animals, plants, and natural objects (including mountains, rivers, winds, and weather patters) that we have only lately come to think of as "inanimate." How, then, did humans come to sever their ancient reciprocity with the natural world? What will it take for us to recover a sustaining relation with the breathing earth? In The Spell of the Sensuous David Abram draws on sources as diverse as the philosophy of Merleau-Ponty, Balinese shamanism, Apache storytelling, and his own experience as an accomplished sleight-of-hand of magician to reveal the subtle dependence of human cognition on the natural environment. He explores the character of perception and excavates the sensual foundations of language, which--even at its most abstract--echoes the calls and cries of the earth. On every page of this lyrical work, Abram weaves his arguments with a passion, a precision, and an intellectual daring that recall such writers as Loren Eisleley, Annie Dillard, and Barry Lopez.

Wearable Technologies: Concepts, Methodologies, Tools, and Applications

AISGSC 2019

Theory and Applications
Cyber Security, Privacy and Networking
Embedded Sensor Systems
Proceedings of ICACII 2019
Homesteading on the Electronic Frontier

Written by a pair of experts, this self-contained introductory text focuses on how a sequential decision-maker with a finite number of choices would respond in a random environment. 1989 edition.

This book covers selected high-quality research papers presented in the International Conference on Cyber Security, Privacy and Networking (ICSPN 2021), organized during 17-19 September 2021 in India in Online mode. The objectives of ICSPN 2021 is to provide a premier international platform for deliberations on strategies, recent trends, innovative approaches, discussions and presentations on the most recent cyber security, privacy and networking challenges and developments from the perspective of providing security awareness and its best practices for the real world. Moreover, the motivation to organize this conference is to promote research by sharing innovative ideas among all levels of the scientific community, and to provide opportunities to develop creative solutions to various security, privacy and networking problems.

This book features selected high-quality research papers presented at the International Conference on Machine Intelligence and Signal Processing (MISP 2019), held at the Indian Institute of Technology, Allahabad, India, on September 7-10, 2019. The book covers the latest advances in the fields of machine learning, big data analytics, signal processing, computational learning theory, and their real-time applications. The topics covered include support vector machines (SVM) and variants like least-squares SVM (LS-SVM) and twin SVM (TWSVM), extreme learning machine (ELM), artificial neural network (ANN), and other areas in machine learning. Further, it discusses the real-time challenges involved in processing big data and adapting the algorithms dynamically to improve the computational efficiency. Lastly, it describes recent developments in processing signals, for instance, signals generated from IoT devices, smart systems, speech, and videos and addresses biomedical signal processing: electrocardiogram (ECG) and electroencephalogram (EEG).

This book provides a comprehensive yet easy coverage of ad hoc and sensor networks and fills the gap of existing literature in this growing field. It emphasizes that there is a major interdependence among various layers of the network protocol stack. Contrary to wired or even one-hop cellular networks, the lack of a fixed infrastructure, the inherent mobility, the wireless channel, and the underlying routing mechanism by ad hoc and sensor networks introduce a number of technological challenges that are difficult to address within the boundaries of a single protocol layer. All existing textbooks on the subject often focus on a specific aspect of the technology, and fail to provide critical insights on cross-layer interdependencies. To fully understand these intriguing networks, one need to grasp specific solutions individually, and also the many interdependencies and cross-layer interactions.

The Vegan Metamorphosis
Proceedings of International Conference, MISP 2019
Introduction to Computing Systems
From Bits and Gates to C and Beyond
Encyclopedia on Ad Hoc and Ubiquitous Computing
Handbook of Computer Networks and Cyber Security
Handbook of Research on Modern Cryptographic Solutions for Computer and Cyber Security

We are in the midst of a monumental transformation in human civilization, akin to a metamorphosis. Just as in Nature where the caterpillar gorges excessively before forcibly undergoing a metamorphosis in the chrysalis, we over-consuming humans are reaching a point of being forcibly transformed within the cocoon of our finite planet into compassionate, life-affirming butterflies. Vegan life-affirming butterflies. Carbon Yoga weaves a narrative through the events of the past to show that such a vegan metamorphosis is inexorable and that this system change will occur within the next decade, both from a scientific perspective and from a religious and spiritual perspective. The narrative proposes an evolutionary purpose for humanity and for Western civilization. During the Caterpillar phase, humans unintentionally built all the tools and technologies needed to regulate the Earth's climate and organize an equitable global human society. But as a consequence, the Earth is marinating in ever accumulating toxic pollution even as ecosystems are degraded and the climate is changing. Now, we have no choice but to treat all Life as sacred in order to preserve that on which we depend for our own survival. Such a revolutionary change in human outlook has the added benefit of inducing spiritual awakening, resolving social justice issues, elevating our connection with all Life and improving human health and well being. It is only such a quest for "moral singularity" that will heal the Earth, regenerate Life and lead us to true global sustainability. Carbon Yoga is the second in a series that began with the 2011 book, Carbon Dharma: The Occupation of Butterflies. While Carbon Dharma was mainly about what we need to do, as a species, to reach sustainability, Carbon Yoga takes this understanding of ethical and environmental righteousness (Dharma) and suggests how we can go about doing it (Yoga).

Ad hoc and ubiquitous computing technologies have received extensive attention in both the academia and industry with the explosive growth of wireless communication devices. These technologies are beneficial for many applications, such as offering futuristic high bandwidth access for users, and are expected to offer more exciting and efficient services, anytime and anywhere. In order to satisfy these diverse applications, The design issues of various wireless networks such as ad hoc, sensor, and mesh networks are extremely complicated and there are a number of technique challenges that need to be explored, involving every layer of the OSI protocol stack. This book aims to provide a complete understanding of these networks by investigating the evolution of ad hoc, sensor, and mesh networking technologies from theoretic concept to implementation protocols, from fundamentals to real applications. it provides the necessary background material needed to go deeper into the subject and explore the research literature. The explanation in the book is therefore sufficiently detailed to serve as a comprehensive reference for students, instructors, researchers, engineers, and other professionals, building their understanding of these networks.

This book is a printed edition of the Special Issue "Wireless Sensor and Actuator Networks for Smart Cities" that was published in JSAN

Howard Rheingold tours the "virtual community" of online networking. Howard Rheingold has been called the First Citizen of the Internet. In this book he tours the "virtual community" of online networking. He describes a community that is as real and as much a mixed bag as any physical community—one where people talk, argue, seek information, organize politically, fall in love, and dupe others. At the same time that he tells moving stories about people who have received online emotional support during devastating illnesses, he acknowledges a darker side to people's behavior in cyberspace. Indeed, contends Rheingold, people relate to each other online much the same as they do in physical communities. Originally published in 1993, The Virtual Community is more timely than ever. This edition contains a new chapter, in which the author revisits his ideas about online social communication now that so much more of the world's population is wired. It also contains an extended bibliography.

Principles, Algorithm, Applications, and Perspectives
Languages, Compilation Techniques, and Run Time Systems
Information Processing in Sensor Networks
Event Processing in Action
Wireless Sensor Networks
Big Data Application in Power Systems
From Mobile Playgrounds to Sweatshop City

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

Fiftieth anniversary reissue of the founding media studies book that helped establish media art as a cultural category. First published in 1970, Gene Youngblood's influential Expanded Cinema was the first serious treatment of video, computers, and holography as cinematic technologies. Long considered the bible for media artists, Youngblood's insider account of 1960s counterculture and the birth of cybernetics remains a mainstay reference in today's hypermediated digital world. This fiftieth anniversary edition includes a new Introduction by the author that offers conceptual tools for understanding the sociocultural and sociopolitical realities of our present world. A unique eyewitness account of burgeoning experimental film and the birth of video art in the late 1960s, this far- ranging study traces the evolution of cinematic language to the end of fiction, drama, and realism. Vast in scope, its prescient formulations include "the paleocybernetic age," "intermedia," the "artist as design scientist," the "artist as ecologist," "synaesthetics and kinesthetics," and "the technosphere: man/machine symbiosis." Outstanding works are analyzed in detail. Methods of production are meticulously described, including interviews with artists and technologists of the period, such as Nam June Paik, Jordan Belson, Andy Warhol, Stan Brakhage, Carolee Schneemann, Stan VanDerBeek, Les Levine, and Frank Gillette. An inspiring Introduction by the celebrated polymath and designer R. Buckminster Fuller—a perfectly cut gem of countercultural thinking in itself—places Youngblood's radical observations in comprehensive perspective. Providing an unparalleled historical documentation, Expanded Cinema clarifies a chapter of countercultural history that is still not fully represented in the arthistorical record half a century later. The book will also inspire the current generation of artists working in ever-newer expansions of the cinematic environment and will prove invaluable to all who are concerned with the technologies that are reshaping the nature of human communication.

Today, cloud computing, big data, and the internet of things (IoT) are becoming indubitable parts of modern information and communication systems. They cover not only information and communication technology but also all types of systems in society including within the realms of business, finance, industry, manufacturing, and management. Therefore, it is critical to remain up-to-date on the latest advancements and applications, as well as current issues and challenges. The Handbook of Research on Cloud Computing and Big Data Applications in IoT is a pivotal reference source that provides relevant theoretical frameworks and the latest empirical research findings on principles, challenges, and applications of cloud computing, big data, and IoT. While highlighting topics such as fog computing, language interaction, and scheduling algorithms, this publication is ideally designed for software developers, computer engineers, scientists, professionals, academicians, researchers, and students.

This book constitutes the refereed proceedings of the Second International Workshop on Information Processing in Sensor Networks, IPSN 2003, held in Palo Alto, CA, USA, in April 2003. The 23 revised full papers and 21 revised poster papers presented were carefully reviewed and selected from 73 submissions. Among the topics addressed are wireless sensor networks, query processing, decentralized sensor platforms, distributed databases, distributed group management, sensor network design, collaborative signal processing, adhoc sensor networks, distributed algorithms, distributed sensor network control, sensor network resource management, data service middleware, random sensor networks, mobile agents, target tracking, sensor network protocols, large scale sensor networks, and multicast.

Evolution of Supply Chain Management
Proceedings of ICSPN 2021
An Introduction
Compiler Optimizations for Scalable Parallel Systems
Computer Models, Climate Data, and the Politics of Global Warming
Second International Workshop, IPSN 2003, Palo Alto, CA, USA, April 22-23, 2003, Proceedings
Problem Solving for Wireless Sensor Networks

The first edition of Satellite Communications Systems Engineering (Wiley 2008) was written for those concerned with the design and performance of satellite communications systems employed in fixed point to point, broadcasting, mobile, radio navigation, data relay, computer communications, and related satellite based applications. This welcome Second Edition continues the basic premise and enhances the publication with the latest updated information and new technologies developed since the publication of the first edition. The book is based on graduate level satellite communications course material and has served as the primary text for electrical engineering Masters and Doctoral level courses in satellite communications and related areas. Introductory to advanced engineering level students in electrical, communications and wireless network courses, and electrical engineers, communications engineers, systems engineers, and wireless network engineers looking for a refresher will find this essential text invaluable.

Problem Solving for Wireless Sensor Networks delivers a comprehensive review of the state of the art in the most important technological issues related to Wireless Sensor Networks (WSN). It covers topics such as hardware platforms, radio technologies, software technologies (including middleware), and network and deployment aspects. This book discusses the main open issues inside each of these categories and identifies innovations considered most interesting for future research. Features: - Hardware Platforms in WSN, - Software Technologies in SWN, - Network Aspects and Deployment in WSN, - Standards and Safety Regulation for WSN, - European Projects Related to WSN, - WSN Application Scenarios at both utility and technical levels. Complete, cutting-edge and resulting from the work of many recognized researchers, Problem Solving for Wireless Sensor Networks is an invaluable reference for graduates and researchers, as well as practitioners.

"Christian Nold and Rob van Kranenburg articulate the foundations of a future manifesto for an Internet of Things in the public interest. Nold and Kranenburg propose tangible design interventions that challenge an internet dominated by commercial tools and systems, emphasizing that people from all walks of life have to be at the table when we talk about alternate possibilities for ubiquitous computing. Through horizontally scaling grass roots efforts along with establishing social standards for governments and companies to allow cooperation, Nold and Kranenburg argue for transforming the Internet of Things into an Internet of People"--Publisher's Web site.

Theories and Applications
Atmospheric Effects, Satellite Link Design and System Performance