Intelligent Wireless Video Camera Using Computer

PETERSEN BRODY

Intelligent Network Video Springer Science & Business Media
This book constitutes the refereed proceedings of the 18th Australian Joint Conference on Artificial Intelligence, AI 2005, held in Sydney, Australia in December 2005. The 77 revised full papers and 119 revised short papers presented together with the abstracts of 3 keynote speeches were carefully reviewed and selected from 535 submissions. The papers are catgorized in three broad sections, namely: AI foundations and technologies, computational intelligence, and AI in specialized domains. Particular topics addressed by the papers are logic and reasoning, machine learning, game theory, robotic technology, data mining, neural networks, fuzzy theory and algorithms, evolutionary computing, Web intelligence, decision making, pattern recognition, agent technology, and AI applications.
Smart Wireless Sensor Networks Springer
This volume contains the proceedings of UIC 2009, the 6th International C- ference on Ubiquitous Intelligence and Computing: Building Smart Worlds in Real and Cyber Spaces. The UIC 2009 conference was technically co-sponsored by the IEEE and the IEEE Computer Society Technical Committee on Scalable Computing. The conference was also sponsored by the Australian Centre of - cellence in Information and Communication Technologies (NICTA). UIC 2009 was accompanied by six workshops on a variety of research challenges within the area of ubiquitous intelligence and computing. The conference was held in Brisbane, Australia, July 7–9, 2009. The event was the sixth meeting of this conference series. USW 2005 (First International Workshop on Ubiquitous Smart World), held in March 2005 in Taiwan, was the ?rst event in the series. This event was followed by UISW 2005 (Second International Symposium on Ubiquitous Intelligence and Smart Worlds) held in December 2005 in Japan. Since 2006, the conference has been held annually under the name UIC (International Conference on Ubiquitous Intelligence and Computing). UIC 2006 was held in September 2006 in Wuhan andThreeGorges,China,followedbyUIC2007heldinJuly2007inHongKong, and UIC 2008 held in June 2008 in Oslo, Norway. Ubiquitous sensors,computers, networksand informationare paving the way towardasmartworldinwhichcomputationalintelligenceisdistributedthrou- out the physical environment to provide reliable and relevant services to people.

Computational Intelligence in Data Mining—Volume 1 BoD – Books on Demand
CSIE 2011 is an international scientific Congress for distinguished scholars engaged in scientific, engineering and technological research, dedicated to build a platform for exploring and discussing the future of Computer Science and Information Engineering with existing and potential application scenarios. The congress has been held twice, in Los Angeles, USA for the first and in Changchun, China for the second time, each of which attracted a large number of researchers from all over the world. The congress turns out to develop a spirit of cooperation that leads to new friendship for addressing a wide variety of ongoing problems in this vibrant area of technology and fostering more collaboration over the world. The congress, CSIE 2011, received 2483 full paper and abstract submissions from 27 countries and regions over the world. Through a rigorous peer review process, all submissions were refereed based on their quality of content, level of innovation, significance, originality and legibility. 688 papers have been accepted for the international congress proceedings ultimately.
CONTROLO'2014 – Proceedings of the 11th Portuguese Conference on Automatic Control Global Sources
The book is a collection of high-quality peer-reviewed research papers presented in the Second International Conference on Computational Intelligence in Data Mining (ICCIDM 2015) held at Bhubaneswar, Odisha, India during 5 – 6 December 2015. The two-volume Proceedings address the difficulties and challenges for the seamless integration of two core disciplines of computer science, i.e., computational intelligence and data mining. The book addresses different methods and techniques of integration for enhancing the overall goal of data mining. The book helps to disseminate the knowledge about some innovative, active research directions in the field of data mining, machine and computational intelligence, along with some current issues and applications of related topics.
Computer Networks & Communications (NetCom) Springer
Computer Networks & Communications (NetCom) is the proceedings from the Fourth International Conference on Networks & Communications. This book covers theory, methodology and applications of computer networks, network protocols and wireless networks, data communication technologies, and network security. The proceedings will feature peer-reviewed papers that illustrate research results, projects, surveys and industrial experiences that describe significant advances in the diverse areas of computer networks & communications.
PRICAI 2008: Trends in Artificial Intelligence Springer Science & Business Media
Continuing in the tradition of the bestselling first edition, this book examines networked surveillance video solutions. It provides the latest details on industry hardware, software, and networking capabilities of the latest cameras and DVRs. It addresses in full detail updated specifications on MPEG-4 and other digital video formats, resolution advantages of analog v. digital, intelligent video capabilities, frame rate control, and indoor/outdoor installations factors. New chapters include cloud computing, standards, and thermal cameras.
Artificial Intelligence and Mobile Services – AIMS 2018 Springer Science & Business Media
This book presents an overview of smart camera systems, considering practical applications but also reviewing fundamental aspects of the underlying technology. It introduces in a tutorial style the principles of sensing and signal processing, and also describes topics such as wireless connection to the Internet of Things (IoT) which is expected to be the biggest market for smart cameras. It is an excellent guide to the fundamental of smart camera technology, and the chapters complement each other well as the authors have worked as a team under the auspice of GFP(Global Frontier Project), the largest-scale funded research in Korea. This is the third of three books based on the Integrated Smart Sensors research project, which describe the development of innovative devices, circuits, and system-level enabling technologies. The aim of the project was to develop common platforms on which various devices and sensors can be loaded, and to create systems offering significant improvements in information processing speed, energy usage, and size. This book contains extensive reference lists, introduces the reader to the subject in a tutorial style and also reviews state-of-the-art results, which allows it to be used as a guide for starting researchers.
Introduction to Intelligent Surveillance Springer
This book presents the proceedings of the International Computer Symposium 2014 (ICS 2014), held at Tunghai University, Taichung, Taiwan in December. ICS is a biennial symposium founded in 1973 and offers a platform for researchers, educators and professionals to exchange their discoveries and practices, to share research experiences and to discuss potential new trends in the ICT industry. Topics covered in the ICS 2014 workshops include: algorithms and computation theory; artificial intelligence and fuzzy systems; computer architecture, embedded systems, SoC and VLSI/EDA; cryptography and information security; databases, data mining, big data and information retrieval; mobile computing, wireless communications and vehicular technologies; software engineering and programming languages; healthcare and bioinformatics, among others. There was also a workshop on information technology innovation, industrial application and the Internet of Things. ICS is one of Taiwan's most prestigious international IT symposiums, and this book will be of interest to all those involved in the world of information technology.
Ad Hoc Networks BoD – Books on Demand
Business intelligence--the acquisition, management, and utilization of information--is crucial in the global marketplace of the 21st century. This savvy handbook explains how even the smallest firm can use inexpensive Web resources to create an Internet Business Intelligence System (IBIS) that rivals the multimillion-dollar systems of Fortune 500 companies. IBIS tracks competitors, explore markets, and evaluates opportunities and risks. It can also be used to launch a business, find customers, test new products, and increase sales.
Recent Advances in Computer Science and Information Engineering Springer Nature
This book emphasizes the increasingly important role that Computational Intelligence (CI) methods are playing in solving a myriad of entangled Wireless Sensor Networks (WSN) related problems. The book serves as a guide for surveying several state-of-the-art WSN scenarios in which CI approaches have been employed. The reader finds in this book how CI has contributed to solve a wide range of challenging problems, ranging from balancing the cost and accuracy of heterogeneous sensor deployments to recovering from real-time sensor failures to detecting attacks launched by malicious sensor nodes and enacting CI-based security schemes. Network managers, industry experts, academicians and practitioners alike (mostly in computer engineering, computer science or applied mathematics) benefit from th e spectrum of successful applications reported in this book. Senior undergraduate or graduate students may discover in this book some problems well suited for their own research endeavors.
Third-Generation Systems and Intelligent Wireless Networking CRC Press

This practically-oriented textbook introduces the fundamentals of designing digital surveillance systems powered by intelligent computing techniques. The text offers comprehensive coverage of each aspect of the system, from camera calibration and data capture, to the secure transmission of surveillance data, in addition to the detection and recognition of individual biometric features and objects. The coverage concludes with the development of a complete system for the automated observation of the full lifecycle of a surveillance event, enhanced by the use of artificial intelligence and supercomputing technology. This updated third edition presents an expanded focus on human behavior analysis and privacy preservation, as well as deep learning methods. Topics and features: contains review questions and exercises in every chapter, together with a glossary; describes the essentials of implementing an intelligent surveillance system and analyzing surveillance data, including a range of biometric characteristics; examines the importance of network security and digital forensics in the communication of surveillance data, as well as issues of issues of privacy and ethics; discusses the Viola-Jones object detection method, and the HOG algorithm for pedestrian and human behavior recognition; reviews the use of artificial intelligence for automated monitoring of surveillance events, and decision-making approaches to determine the need for human intervention; presents a case study on a system that triggers an alarm when a vehicle fails to stop at a red light, and identifies the vehicle's license plate number; investigates the use of cutting-edge supercomputing technologies for digital surveillance, such as FPGA, GPU and parallel computing. This concise and accessible work serves as a classroom-tested textbook for graduate-level courses on intelligent surveillance. Researchers and engineers interested in entering this area will also find the book suitable as a helpful self-study reference.

Intelligent Video Surveillance Video Surveillance

The portable device and mobile phone market has witnessed rapid growth in the last few years with the emergence of several revolutionary products such as mobile TV, converging iPhone and digital cameras that combine music, phone and video functionalities into one device. The proliferation of this market has further bene?ted from the competition in software and applications for smart phones such as Google's Android operating system and Apple's iPhone App- Store, stimulating tens of thousands of mobile applications that are made ava- able by individual and enterprise developers. Whereas the mobile device has become ubiquitous in people's daily life not only as a cellular phone but also as a media player, a mobile computing device, and a personal assistant, it is p- ticularly important to address challenges timely in applying advanced pattern recognition, signal, information and multimedia processing techniques, and new emerging networking technologies to such mobile systems. The primary objective of this book is to foster interdisciplinary discussions and research in mobile multimedia processing techniques, applications and s- tems, as well as to provide stimulus to researchers on pushing the frontier of emerging new technologies and applications. One attempt on such discussions was the organization of the First Int- national Workshop of Mobile Multimedia Processing (WMMP 2008), held in Tampa, Florida, USA, on December 7, 2008. About 30 papers were submitted from10countriesacrosstheUSA,Asia andEurope.

AI 2005: Advances in Artificial Intelligence CRC Press

Perception of human beings has evolved from natural biosensor to powerful sensors and sensor networks. In sensor networks, trillions of devices are interconnected and sense a broad spectrum of contexts for human beings, laying the foundation of Internet of Things (IoT). However, sensor technologies have several limitations relating to deployment cost and usability, which render them unacceptable for practical use. Consequently, the pursuit of convenience in human perception necessitates a wireless, sensorless and contactless sensing paradigm. Recent decades have witnessed rapid developments in wireless sensing technologies, in which sensors detect wireless signals (such as acoustic, light, and radio frequency) originally designed for data transmission or lighting. By analyzing the signal measurements on the receiver end, channel characteristics can be obtained to convey the sensing results. Currently, significant effort is being devoted to employing the ambient Wi-Fi, RFID, Bluetooth, ZigBee, and television signals for smart wireless sensing, eliminating the need for dedicated sensors and promoting the prospect of the Artificial Intelligence of Things (AIoT). This book provides a comprehensive and in-depth discussion of wireless sensing technologies. Specifically, with a particular focus on Wi-Fi-based sensing for understanding human behavior, it adopts a top-down approach to introduce three key topics: human detection, localization, and activity recognition. Presenting the latest advances in smart wireless sensing based on an extensive review of state-of-the-art research, it promotes the further development of this area and also contributes to interdisciplinary research.

Theory and Applications of Smart Cameras Springer Science & Business Media

Video SurveillanceBoD – Books on Demand

Handbook of Intelligent Computing and Optimization for Sustainable Development Springer Nature

INTELLIGENT CONNECTIVITY AI, IOT, AND 5G Explore the economics and technology of AI, IOT, and 5G integration Intelligent Connectivity: AI, IoT, and 5G delivers a comprehensive technological and economic analysis of intelligent connectivity and the integration of artificial intelligence, Internet of Things (IoT), and 5G. It covers a broad range of topics, including Machine-to-Machine (M2M) architectures, edge computing, cybersecurity, privacy, risk management, IoT architectures, and more. The book offers readers robust statistical data in the form of tables, schematic diagrams, and figures that provide a clear understanding of the topic, along with real-world examples of applications and services of intelligent connectivity in different sectors of the economy. Intelligent Connectivity describes key aspects of the digital transformation coming with the 4th industrial revolution that will touch on industries as disparate as transportation, education, healthcare, logistics, entertainment, security, and manufacturing. Readers will also get access to: A thorough introduction to technology adoption and emerging trends in technology, including business trends and disruptive new applications Comprehensive explorations of telecommunications transformation and intelligent connectivity, including learning algorithms, machine learning, and deep learning Practical discussions of the Internet of Things, including its potential for disruption and future trends for technological development In-depth examinations of 5G wireless technology, including discussions of the first five generations of wireless tech Ideal for telecom and information technology managers, directors, and engineers, Intelligent Connectivity: AI, IoT, and 5G is also an indispensable resource for senior undergraduate and graduate students in telecom and computer science programs.

Computational Intelligence in Wireless Sensor Networks Information Today, Inc.

Transcultural Artificial Intelligence and Robotics in Health and Social Care provides healthcare professionals with a deeper understanding of the incredible opportunities brought by the emerging field of AI robotics. In addition, it provides robotic researchers with the point-of-view of healthcare professionals to understand what the healthcare sector – as well as the market –

really needs from robotics technology. By doing so, the book fills an important gap between both fields in order to leverage new developments and collaborative work in favor of global patients. The book is aimed at the non-technical reader, especially health and social care professionals, and explains in a simple way the technological principles applied in the development of socially assistive humanoid AI robots (SAHR), the values which guide such developments, the ethics related to them, and research approaches in the field, with a focus on achieving a culturally competent SAHR. Presents user-friendly and stage-by-stage information to help readers appreciate how AI robots work and how they can be integrated in their work environments Explains why AI and socially assistive robotics need to be culturally competent Helps reduce readers' fears and change negative prejudices they may have about robots as a relevant tool for healthcare Written by experts in AI robotics and the creators of transcultural health/social robotics Informed by the largest trial conducted with real patients

Informatics and Management Science V CRC PressI Llc

This book consists of papers on the recent progresses in the state of the art in natural computation, fuzzy systems and knowledge discovery. The book is useful for researchers, including professors, graduate students, as well as R & D staff in the industry, with a general interest in natural computation, fuzzy systems and knowledge discovery. The work printed in this book was presented at the 2020 16th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2020), held in Xi'an, China, from 19 to 21 December 2020. All papers were rigorously peer-reviewed by experts in the areas.

Intelligent Connectivity Springer

Intelligent networking provides value-added communications capabilities such as cost reduction, improved service delivery, increased variety, and quality of services Provides an all-encompassing self-contained treatment of adaptive modulation, adaptive antennas, and adaptive networking Provides an overview of the various CMA-based 3G wireless standards--UTRA, IMT 2000, and cdma 2000 Presents the principles of beamforming and the various techniques used for its implementation Quantifies the UTRA network capacity under various channel conditions

Intelligent Network Video Springer Science & Business Media

This book is a collection of selected papers from the 2011 International Conference on Communications, Electronics and Automation Engineering hold in Xi'an, China, August 23-25, 2012. It presents some of the latest research findings in a broad range of interdisciplinary fields related to communications, electronics and automation engineering. Specific emphasis is placed on the following topics: automation control, data mining and statistics, simulation and mathematical modeling, human factors and cognitive engineering, web technology, optimization and algorithm, and network communications. The prime objective of the book is to familiarize the readers with cutting edge developments in the research of electronics and automation engineering with a variety of applications. Hopefully, the book can help researchers to identify research trends in many areas, to learn the new methods and tools, and to spark innovative ideas.

Smart Wireless Acoustic Sensor Network Design for Noise Monitoring in Smart Cities IOS Press

Ad hoc networks refer to the wireless networking paradigm that covers a variety of network forms for specific purposes, such as mobile ad hoc networks, sensor n- works, vehicular networks, underwater networks, underground networks, personal area networks, and home networks. The various forms of ad hoc networks promise a broad scope of applications in civilian, commercial, and military areas, which have led to significant new research problems and challenges, and have attracted great efforts from academia, industry, and government. This unique networking paradigm neces- tates re-examination of many established wireless networking concepts and protocols, and calls for developing new fundamental understanding of problems such as interf- ence, mobility, connectivity, capacity, and security, among others. While it is ess- tial to advance theoretical research on fundamentals and practical research on efficient algorithms and protocols, it is also critical to develop useful applications, experim- tal prototypes, and real-world deployments to achieve a practical impact on our so- ety for the success of this networking paradigm. The annual International Conference on Ad Hoc Networks (AdHocNets) is a new event that aims at providing a forum to bring together researchers from academia as well as practitioners from industry and government to meet and exchange ideas and recent research work on all aspects of ad hoc networks. As the first edition of this event, AdHocNets 2009 was successfully held in Niagara Falls, Ontario, Canada, during September 22–25, 2009.