

2012 Ieee Base Paper On Network Security

This three volume set (CCIS 853-855) constitutes the proceedings of the 17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2017, held in Cádiz, Spain, in June 2018. The 193 revised full papers were carefully reviewed and selected from 383 submissions. The papers are organized in topical sections on advances on explainable artificial intelligence; aggregation operators, fuzzy metrics and applications; belief function theory and its applications; current techniques to model, process and describe time series; discrete models and computational intelligence; formal concept analysis and uncertainty; fuzzy implication functions; fuzzy logic and artificial intelligence problems; fuzzy mathematical analysis and applications; fuzzy methods in data mining and knowledge discovery; fuzzy transforms: theory and applications to data analysis and image processing; imprecise probabilities: foundations and applications; mathematical fuzzy logic, mathematical morphology; measures of comparison and entropies for fuzzy sets and their extensions; new trends in data aggregation; pre-aggregation functions and generalized forms of monotonicity; rough and fuzzy similarity modelling tools; soft computing for decision making in uncertainty; soft computing in information retrieval and sentiment analysis; tri-partitions and uncertainty; decision making modeling and applications; logical methods in mining knowledge from big data; metaheuristics and machine learning; optimization models for modern analytics; uncertainty in medicine; uncertainty in Video/Image Processing (UVIP). Remote Sensing Image Fusion: A Practical Guide gives an introduction to remote sensing image fusion providing an overview on the sensors and applications. It describes data selection, application requirements and the choice of a suitable image fusion technique. It comprises a diverse selection of successful image fusion cases that are relevant to other users and other areas of interest around the world. The book helps newcomers to obtain a quick start into the practical value and benefits of multi-sensor image fusion. Experts will find this book useful to obtain an overview on the state of the art and understand current constraints that need to be solved in future research efforts. For industry professionals the book can be a great introduction and basis to understand multisensor remote sensing image exploitation and the development of commercialized image fusion software from a practical perspective. The book concludes with a chapter on current trends and future developments in remote sensing image fusion. Along with the book, RSIF website provides additional up-to-date information in the field.

This book presents in a systematic manner the advanced technologies used for various modern robot applications. By bringing fresh ideas, new concepts, novel methods and tools into robot control, robot vision, human robot interaction, teleoperation of robot and multiple robots system, we are to provide a state-of-the-art and comprehensive treatment of the advanced technologies for a wide range of robotic applications. Particularly, we focus on the topics of advanced control and obstacle avoidance techniques for robot to deal with unknown perturbations, of visual servoing techniques which enable robot to autonomously operate in a dynamic environment, and of advanced techniques involved in human robot interaction. The book is primarily intended for researchers and engineers in the robotic and control community. It can also serve as complementary reading for robotics at the both graduate and undergraduate levels.

As information systems used for research and educational purposes have become more complex, there has been an increase in the need for new computing architecture. High performance and cloud computing provide reliable and cost-effective information technology infrastructure that enhances research and educational processes. Handbook of Research on High Performance and Cloud Computing in Scientific Research and Education presents the applications of cloud computing in various settings, such as scientific research, education, e-learning, ubiquitous learning, and social computing. Providing various examples, practical solutions, and applications of high performance and cloud computing; this book is a useful reference for professionals and researchers discovering the applications of information and communication technologies in science and education, as well as scholars seeking insight on how modern technologies support scientific research.

Summary: "This book brings together case study examples in the fields of sustainability, sustainable development, and education for sustainable development"--

A realistic and comprehensive review of joint approaches to machine learning and signal processing algorithms, with application to communications, multimedia, and biomedical engineering systems Digital Signal Processing with Kernel Methods reviews the milestones in the mixing of classical digital signal processing models and advanced kernel machines statistical learning tools. It explains the fundamental concepts from both fields of machine learning and signal processing so that readers can quickly get up to speed in order to begin developing the concepts and application software in their own research. Digital Signal Processing with Kernel Methods provides a comprehensive overview of kernel methods in signal processing, without restriction to any application field. It also offers example applications and detailed benchmarking experiments with real and synthetic datasets throughout. Readers can find further worked examples with Matlab source code on a website developed by the authors: <http://github.com/DSPKM> • Presents the necessary basic ideas from both digital signal processing and machine learning concepts • Reviews the state-of-the-art in SVM algorithms for classification and detection problems in the context of signal processing • Surveys advances in kernel signal processing beyond SVM algorithms to present other highly relevant kernel methods for digital signal processing An excellent book for signal processing researchers and practitioners, Digital Signal Processing with Kernel Methods will also appeal to those involved in machine learning and pattern recognition.

This book constitutes the proceedings of the 10th International Conference on Advanced Data Mining and Applications, ADMA 2014, held in Guilin, China during December 2014. The 48 regular papers and 10 workshop papers presented in this volume were carefully reviewed and selected from 90 submissions. They deal with the following topics: data mining, social network and social media, recommend systems, database, dimensionality reduction, advance machine learning

techniques, classification, big data and applications, clustering methods, machine learning, and data mining and database.

This book constitutes the thoroughly refereed proceedings of the Third International Conference on Data Technologies and Applications, DATA 2014, held in Vienna, Austria, in August 2014. The 12 revised full papers were carefully reviewed and selected from 87 submissions. The papers deal with the following topics: databases, data warehousing, data mining, data management, data security, knowledge and information systems and technologies; advanced application of data.

The 6th FTRA International Conference on Computer Science and its Applications (CSA-14) will be held in Guam, USA, Dec. 17 - 19, 2014. CSA-14 presents a comprehensive conference focused on the various aspects of advances in engineering systems in computer science, and applications, including ubiquitous computing, U-Health care system, Big Data, UI/UX for human-centric computing, Computing Service, Bioinformatics and Bio-Inspired Computing and will show recent advances on various aspects of computing technology, Ubiquitous Computing Services and its application.

The two-volume set LNCS 8802 and LNCS 8803 constitutes the refereed proceedings of the 6th International Symposium on Leveraging Applications of Formal Methods, Verification and Validation, ISoLA 2014, held in Imperial, Corfu, Greece, in October 2014. The total of 67 full papers was carefully reviewed and selected for inclusion in the proceedings. Featuring a track introduction to each section, the papers are organized in topical sections named: evolving critical systems; rigorous engineering of autonomic ensembles; automata learning; formal methods and analysis in software product line engineering; model-based code generators and compilers; engineering virtualized systems; statistical model checking; risk-based testing; medical cyber-physical systems; scientific workflows; evaluation and reproducibility of program analysis; processes and data integration in the networked healthcare; semantic heterogeneity in the formal development of complex systems. In addition, part I contains a tutorial on automata learning in practice; as well as the preliminary manifesto to the LNCS Transactions on the Foundations for Mastering Change with several position papers. Part II contains information on the industrial track and the doctoral symposium and poster session.

This book constitutes the refereed proceedings of the 7th European Conference on Technology Enhanced Learning, EC-TEL 2012, held in Saarbrücken, Germany, in September 2012. The 26 revised full papers presented were carefully reviewed and selected from 130 submissions. The book also includes 12 short papers, 16 demonstration papers, 11 poster papers, and 1 invited paper. Specifically, the programme and organizing structure was formed through the themes: mobile learning and context; serious and educational games; collaborative learning; organisational and workplace learning; learning analytics and retrieval; personalised and adaptive learning; learning environments; academic learning and context; and, learning facilitation by semantic means.

In today's age of wireless and mobile computing, network and computer security is paramount. *Case Studies in Secure Computing: Achievements and Trends* gathers the latest research from researchers who share their insights and best practices through illustrative case studies. This book examines the growing security attacks and countermeasures in the stand-alone and networking worlds, along with other pertinent security issues. The many case studies capture a truly wide range of secure computing applications. Surveying the common elements in computer security attacks and defenses, the book: Describes the use of feature selection and fuzzy logic in a decision tree model for intrusion detection Introduces a set of common fuzzy-logic-based security risk estimation techniques with examples Proposes a secure authenticated multiple-key establishment protocol for wireless sensor networks Investigates various malicious activities associated with cloud computing and proposes some countermeasures Examines current and emerging security threats in long-term evolution backhaul and core networks Supplies a brief introduction to application-layer denial-of-service (DoS) attacks Illustrating the security challenges currently facing practitioners, this book presents powerful security solutions proposed by leading researchers in the field. The examination of the various case studies will help to develop the practical understanding required to stay one step ahead of the security threats on the horizon. This book will help those new to the field understand how to mitigate security threats. It will also help established practitioners fine-tune their approach to establishing robust and resilient security for next-generation computing systems.

Serving as a flagship driver towards advance research in the area of Big Data platforms and applications, this book provides a platform for the dissemination of advanced topics of theory, research efforts and analysis, and implementation oriented on methods, techniques and performance evaluation. In 23 chapters, several important formulations of the architecture design, optimization techniques, advanced analytics methods, biological, medical and social media applications are presented. These chapters discuss the research of members from the ICT COST Action IC1406 High-Performance Modelling and Simulation for Big Data Applications (cHiPSet). This volume is ideal as a reference for students, researchers and industry practitioners working in or interested in joining interdisciplinary works in the areas of intelligent decision systems using emergent distributed computing paradigms. It will also allow newcomers to grasp the key concerns and their potential solutions.

This book reports on the proceeding of the 5th International Conference on Intelligent, Interactive Systems and Applications (IISA 2020), held in Shanghai, China, on September 25-27, 2020. The IISA proceedings, with the latest scientific findings, and methods for solving intriguing problems, are a reference for state-of-the-art works on intelligent and interactive systems. This book covers nine interesting and current topics on different systems' orientations, including Analytical Systems, Database Management Systems, Electronics Systems, Energy Systems, Intelligent Systems, Network Systems, Optimization Systems, and Pattern Recognition Systems and Applications. The chapters included in this book cover significant recent developments in the field, both in terms of theoretical foundations and their practical application. An important characteristic of the works included here is the novelty of the solution approaches to the most interesting applications of intelligent and interactive systems.

This book constitutes the refereed proceedings of the 11th International Conference on Web-Based Learning, ICWL 2012, held in Sinaia, Romania, in September, 2012. The 28 revised full papers presented together with 10 short papers were carefully reviewed and selected from about 105 submissions. The papers are organized in topical sections on Computer Supported Collaborative Learning, Web 2.0 and Social Learning Environments; Personal Learning Environments; Learning Objects' Management and Ontologies; Game-Based Learning; Personalized and Adaptive Learning; Feedback, Assessment and Learning Analytics; Design, Model and Implementation of E-Learning Platforms and Tools; Pedagogical Issues, Practice and Experience Sharing.

This book constitutes the refereed proceedings of the 14th World Congress on Services, SERVICES 2018, held as part of the Services Conference Federation, SCF 2018, in Seattle, USA, in June 2018. The 10 full papers and 3 short papers presented were carefully reviewed and selected from 22 submissions. The papers cover topics in the field of software foundations and applications with a focus on novel approaches for engineering requirements, design and architectures, testing, maintenance and evolution, model-driven development, software processes, metrics, quality assurance and new software economics models, search-based software engineering, benefiting day-to-day services sectors and derived through experiences, with appreciation to scale, pragmatism, transparency, compliance and/or dependability. Massive MIMO (Multiple-Input--Multiple-Output) is a cellular-network technology in which the base station is equipped with a large number of antennas and aims to serve several different users simultaneously, on the same frequency resource through spatial multiplexing. This is made possible by employing efficient beamforming, based on channel estimates acquired from uplink reference signals, where the base station can transmit the signals in such a way that they add up constructively at the users and destructively elsewhere. The multiplexing

together with the array gain from the beamforming can increase the spectral efficiency over contemporary systems. One challenge of practical importance is how to transmit data in the downlink when no channel state information is available. When a user initially joins the network, prior to transmitting uplink reference signals that enable beamforming, it needs system information---instructions on how to properly function within the network. It is transmission of system information that is the main focus of this thesis. In particular, the thesis analyzes how the reliability of the transmission of system information depends on the available amount of diversity. It is shown how downlink reference signals, space-time block codes, and power allocation can be used to improve the reliability of this transmission. In order to estimate the uplink and downlink channels from uplink reference signals, which is imperative to ensure scalability in the number of base station antennas, massive MIMO relies on channel reciprocity. This thesis shows that the principles of channel reciprocity can also be exploited by a jammer, a malicious transmitter, aiming to disrupt legitimate communication between two single-antenna devices. A heuristic scheme is proposed in which the jammer estimates the channel to a target device blindly, without any knowledge of the transmitted legitimate signals, and subsequently beamforms noise towards the target. Under the same power constraint, the proposed jammer can disrupt the legitimate link more effectively than a conventional omnidirectional jammer in many cases. Massiv MIMO (eng: Multiple-Input--Multiple-Output) är en teknologi inom cellulär kommunikation som förutspås ha en betydande roll i framtida kommunikationssystem på grund av de många fördelar som denna teknologi medför. Massiv MIMO innebär att basstationen har ett stort antal antenner där varje antenn kan styras individuellt. De många antennerna gör att basstationen kan rikta de elektromagnetiska signalerna på ett sådant sätt att de förstärks på positioner där användarna befinner sig men släcks ut i övrigt. Detta i sin tur innebär att flera användare kan betjänas samtidigt, på samma frekvensband utan att de stör varandra. Detta medför att massiv MIMO kan erbjuda en högre dataakt än nutida cellulära kommunikationssystem. För att kunna rikta signalerna på ett effektivt sätt måste basstationen känna till kanalen, eller utbredningsmiljön, mellan sig själv och de användare som betjänas. När en användare precis kommer in i systemet vet basstationen inte var användaren befinner sig, men måste likväl tillgodose användaren med information om hur systemet fungerar. Nu måste alltså basstationen kommunicera med användaren, utan möjligheten att kunna rikta signalen på ett effektivt sätt. Det är detta problem som vi i huvudsak studerar i denna avhandling: hur man kan utnyttja de många antennerna på basstationen för att skicka information till användarna utan någon kanalkänedom. Vi studerar även hur en gruppantenn med många antenner, baserad på samma teknologi som massiv MIMO, kan användas som en störsändare. Störsändarens mål är att hindra kommunikationen mellan två enheter på ett effektivt sätt. En störsändare med ett stort antal antenner kan, utan någon känedom av vad de två enheterna skickar, i många fall prestera bättre än en konventionell störsändare på grund av att störsignalen kan riktas mot en specifik enhet.

Security and privacy protection within computer networks can be a challenge. By examining the current problems and challenges this domain is facing, more efficient strategies can be established to safeguard personal information against invasive pressures. Security and Privacy in Smart Sensor Networks is a critical scholarly resource that examines recent developments and emerging trends in smart sensor security and privacy by providing new models, practical solutions, and technological advances related to security. Featuring coverage on a broad range of topics such as cloud security, encryption, and intrusion detection systems, this book is geared towards academicians, engineers, IT specialists, researchers, and students seeking current research on authentication and intrusion detection.

?This book contains selected papers presented at the "International Annual Conference of the German Operations Research Society (OR2012)" which was held September 4 -7, 2012 at the Leibniz Universität Hannover, Germany. The international conference, which also serves as the annual meeting of the German Operations Research Society (GOR), attracted more than 500 participants from more than 39 countries. Special attention at the conference was given to the three topics "Energy, Markets and Mobility". The OR2012 conference has addressed these topics from an OR perspective, treating them not only in isolation, but also with respect to their numerous and exciting interconnections, such as new energy for new mobility concepts and new market mechanisms for sustainable energy production to name but a few. The proceedings show that this conference topic is an important and promising area to apply Operations Research. The book also contains numerous papers addressing the full scope of fields in Operations Research.

Through expanded intelligence, the use of robotics has fundamentally transformed a variety of fields, including manufacturing, aerospace, medicine, social services, and agriculture. Continued research on robotic design is critical to solving various dynamic obstacles individuals, enterprises, and humanity at large face on a daily basis. Robotic Systems: Concepts, Methodologies, Tools, and Applications is a vital reference source that delves into the current issues, methodologies, and trends relating to advanced robotic technology in the modern world. Highlighting a range of topics such as mechatronics, cybernetics, and human-computer interaction, this multi-volume book is ideally designed for robotics engineers, mechanical engineers, robotics technicians, operators, software engineers, designers, programmers, industry professionals, researchers, students, academicians, and computer practitioners seeking current research on developing innovative ideas for intelligent and autonomous robotics systems.

Pedestrian Protection Systems (PPSs) are on-board systems aimed at detecting and tracking people in the surroundings of a vehicle in order to avoid potentially dangerous situations. These systems, together with other Advanced Driver Assistance Systems (ADAS) such as lane departure warning or adaptive cruise control, are one of the most promising ways to improve traffic safety. By the use of computer vision, cameras working either in the visible or infra-red spectra have been demonstrated as a reliable sensor to perform this task. Nevertheless, the variability of human's appearance, not only in terms of clothing and sizes but also as a result of their dynamic shape, makes pedestrians one of the most complex classes even for computer vision. Moreover, the unstructured changing and unpredictable environment in which such on-board systems must work makes detection a difficult task to be carried out with the demanded robustness. In this brief, the state of the art in PPSs is introduced through the review of the most relevant papers of the last decade. A common computational architecture is presented as a framework to organize each method according to its main contribution. More than 300 papers are referenced, most of them addressing pedestrian detection and others corresponding to the descriptors (features), pedestrian models, and learning machines used. In addition, an overview of topics such as real-time aspects, systems benchmarking and future challenges of this research area are presented.

Im ersten Teil dieser Arbeit wird ein Algorithmus vorgestellt, der spannungsabhängige Einspeisung von Wirk- und Blindleistung in den Lastfluss-Algorithmus integriert. Es wird eine Beschleunigung von bis zu einer Größenordnung gegenüber dem derzeit gängigen Verfahren, und eine verbesserte Robustheit erreicht.

Im zweiten Teil wird ein Phasor-Framework zur dynamischen Simulation von Stromnetzen vorgestellt. Die wesentliche Neuheit ist die Möglichkeit der Integration von Zustandsdiagrammen direkt in die Komponentenmodelle. Damit wird eine wesentlich schnellere Modellentwicklung ermöglicht als mit verfügbaren Tools. Im dritten Teil werden Modelle entwickelt und in das Framework integriert. Der Schwerpunkt liegt auf einem Photovoltaik-Modell welches das dynamische $P(V)$, $Q(V)$ und $P(f)$ Verhalten nach VDE 4105 im Bereich Sekunden bis Minuten abbildet.

Im vierten Teil wird das entwickelte Phasor-Framework verwendet, um das Wiedereinschaltverhalten von Photovoltaikanlagen in einem dieselbetriebenen Inselnetz in der Niederspannung zu untersuchen. Die Untersuchung zeigt, dass ein periodisches Ab- und Abschalten von Photovoltaikanlagen vorkommen kann.

Artificial intelligence is a constantly advancing field that requires models in order to accurately create functional systems. The use of natural

acumen to create artificial intelligence creates a field of research in which the natural and the artificial meet in a new and innovative way. Critical Developments and Applications of Swarm Intelligence is a critical academic publication that examines developing research, technologies, and function regarding natural and artificial acumen specifically, in regards to self-organized systems. Featuring coverage on a broad range of topics such as evolutionary algorithms, optimization techniques, and computational comparison, this book is geared toward academicians, students, researchers, and engineers seeking relevant and current research on the progressive research based on the implementation of swarm intelligence in self-organized systems.

This volume presents a collection of peer-reviewed, scientific articles from the 15th International Conference on Information Technology – New Generations, held at Las Vegas. The collection addresses critical areas of Machine Learning, Networking and Wireless Communications, Cybersecurity, Data Mining, Software Engineering, High Performance Computing Architectures, Computer Vision, Health, Bioinformatics, and Education.

The three-volume set LNCS 12305, 12306, and 12307 constitutes the refereed proceedings of the Third Chinese Conference on Pattern Recognition and Computer Vision, PRCV 2020, held virtually in Nanjing, China, in October 2020. The 158 full papers presented were carefully reviewed and selected from 402 submissions. The papers have been organized in the following topical sections: Part I: Computer Vision and Application, Part II: Pattern Recognition and Application, Part III: Machine Learning.

This book constitutes the refereed proceedings of the 6th IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2015, held in Costa de Caparica, Portugal, in April 2015. The 54 revised full papers were carefully reviewed and selected from 119 submissions. The papers present selected results produced in engineering doctoral programs and focus on development and application of cloud-based engineering systems. Research results and ongoing work are presented, illustrated and discussed in the following areas: collaborative networks; cloud-based manufacturing; reconfigurable manufacturing; distributed computing and embedded systems; perception and signal processing; healthcare; smart monitoring systems; and renewable energy and energy-related management, decision support, simulation and power conversion.

This book is dedicated to Jinhua Cao on the occasion of his 80th birthday. Jinhua Cao is one of the most famous reliability theorists. His main contributions include: published over 100 influential scientific papers; published an interesting reliability book in Chinese in 1986, which has greatly influenced the reliability of education, academic research and engineering applications in China; initiated and organized Reliability Professional Society of China (the first part of Operations Research Society of China) since 1981. The high admiration that Professor Cao enjoys in the reliability community all over the world was witnessed by the enthusiastic response of each contributor in this book. The contributors are leading researchers with diverse research perspectives. The research areas of the book include a broad range of topics related to reliability models, queueing theory, manufacturing systems, supply chain finance, risk management, Markov decision processes, blockchain and so forth. The book consists of a brief Preface describing the main achievements of Professor Cao; followed by congratulations from Professors Way Kuo and Wei Wayne Li, and by Operations Research Society of China, and Reliability Professional Society of China; and further followed by 25 articles roughly grouped together. Most of the articles are written in a style understandable to a wide audience. This book is useful to anyone interested in recent developments in reliability, network security, system safety, and their stochastic modeling and analysis.

This book is devoted to the emerging technology of noise waveform radar and its signal processing aspects. It is a new kind of radar, which use noise-like waveform to illuminate the target. The book includes an introduction to basic radar theory, starting from classical pulse radar, signal compression, and wave radar. The book then discusses the properties, difficulties and potential of noise radar systems, primarily for low-power and short-range civil applications. The contribution of modern signal processing techniques to making noise radar practical are emphasized, and application examples are given.

The book is a collection of high-quality peer-reviewed research papers presented in International Conference on Soft Computing Systems (ICSCS 2015) held at Noorul Islam Centre for Higher Education, Chennai, India. These research papers provide the latest developments in the emerging areas of Soft Computing in Engineering and Technology. The book is organized in two volumes and discusses a wide variety of industrial, engineering and scientific applications of the emerging techniques. It presents invited papers from the inventors/originators of new applications and advanced technologies.

This book constitutes the thoroughly refereed post-workshop proceedings of the Third IAPR TC3 Workshop on Pattern Recognition of Social Signals in Human-Computer-Interaction, MPRSS 2014, held in Stockholm, Sweden, in August 2014, as a satellite event of the International Conference on Pattern Recognition, ICPR 2014. The 14 revised papers presented focus on pattern recognition, machine learning and information fusion methods with applications in social signal processing, including multimodal emotion recognition, user identification, and recognition of human activities.

Mobile Technologies and Augmented Reality in Open Education IGI Global

This eBook provides a comprehensive treatise on modern biomechatronic systems centred around human applications. A particular emphasis is given to exoskeleton designs for assistance and training with advanced interfaces in human-machine interaction. Some of these designs are validated with experimental results which the reader will find very informative as building-blocks for designing such systems. This eBook will be ideally suited to those researching in biomechatronic area with bio-feedback applications or those who are involved in high-end research on man-machine interfaces. This may also serve as a textbook for biomechatronic design at post-graduate level.

The two volume set, consisting of LNCS 7728 and 7729, contains the carefully reviewed and selected papers presented at the nine workshops that were held in conjunction with the 11th Asian Conference on Computer Vision, ACCV 2012, in Daejeon, South Korea, in November 2012. From a total of 310 papers submitted, 78 were selected for presentation. LNCS 7728 contains the papers selected for the International Workshop on Computer Vision with Local Binary Pattern Variants, the Workshop on Computational Photography and Low-Level Vision, the Workshop on Developer-Centered Computer Vision, and the Workshop on Background Models Challenge. LNCS 7729 contains the papers selected for the Workshop on e-Heritage, the Workshop on Color Depth Fusion in Computer Vision, the Workshop on Face Analysis, the Workshop on Detection and Tracking in Challenging Environments, and the International Workshop on Intelligent Mobile Vision.

Novel trends and innovations have enhanced contemporary educational environments. When applied properly, these computing advances can create enriched learning opportunities for students. Mobile Technologies and Augmented

Reality in Open Education is a pivotal reference source for the latest academic research on the integration of interactive technology and mobile applications in online and distance learning environments. Highlighting scholarly perspectives across numerous topics such as wearable technology, instructional design, and flipped learning, this book is ideal for educators, professionals, practitioners, academics, and graduate students interested in the role of augmented reality in modern educational contexts.

This book constitutes the proceedings of the 14th IFIP WG 10.3 International Conference on Network and Parallel Computing, NPC 2017, held in Hefei, China, in October 2017. The 9 full papers and 10 short papers presented in this book were carefully reviewed and selected from 88 submissions. The papers cover traditional areas of network and parallel computing including parallel applications, distributed algorithms, software environments, and distributed tools.

This three-book set constitutes the refereed proceedings of the Second International Conference on Recent Trends in Image Processing and Pattern Recognition (RTIP2R) 2018, held in Solapur, India, in December 2018. The 173 revised full papers presented were carefully reviewed and selected from 374 submissions. The papers are organized in topical sections in the three volumes. Part I: computer vision and pattern recognition; machine learning and applications; and image processing. Part II: healthcare and medical imaging; biometrics and applications. Part III: document image analysis; image analysis in agriculture; and data mining, information retrieval and applications.

The latest developments in the field of hybrid electric vehicles Hybrid Electric Vehicles provides an introduction to hybrid vehicles, which include purely electric, hybrid electric, hybrid hydraulic, fuel cell vehicles, plug-in hybrid electric, and off-road hybrid vehicular systems. It focuses on the power and propulsion systems for these vehicles, including issues related to power and energy management. Other topics covered include hybrid vs. pure electric, HEV system architecture (including plug-in & charging control and hydraulic), off-road and other industrial utility vehicles, safety and EMC, storage technologies, vehicular power and energy management, diagnostics and prognostics, and electromechanical vibration issues. Hybrid Electric Vehicles, Second Edition is a comprehensively updated new edition with four new chapters covering recent advances in hybrid vehicle technology. New areas covered include battery modelling, charger design, and wireless charging. Substantial details have also been included on the architecture of hybrid excavators in the chapter related to special hybrid vehicles. Also included is a chapter providing an overview of hybrid vehicle technology, which offers a perspective on the current debate on sustainability and the environmental impact of hybrid and electric vehicle technology. Completely updated with new chapters Covers recent developments, breakthroughs, and technologies, including new drive topologies Explains HEV fundamentals and applications Offers a holistic perspective on vehicle electrification Hybrid Electric Vehicles: Principles and Applications with Practical Perspectives, Second Edition is a great resource for researchers and practitioners in the automotive industry, as well as for graduate students in automotive engineering.

The three-volume set, consisting of LNCS 9008, 9009, and 9010, contains carefully reviewed and selected papers presented at 15 workshops held in conjunction with the 12th Asian Conference on Computer Vision, ACCV 2014, in Singapore, in November 2014. The 153 full papers presented were selected from numerous submissions. LNCS 9008 contains the papers selected for the Workshop on Human Gait and Action Analysis in the Wild, the Second International Workshop on Big Data in 3D Computer Vision, the Workshop on Deep Learning on Visual Data, the Workshop on Scene Understanding for Autonomous Systems, and the Workshop on Robust Local Descriptors for Computer Vision. LNCS 9009 contains the papers selected for the Workshop on Emerging Topics on Image Restoration and Enhancement, the First International Workshop on Robust Reading, the Second Workshop on User-Centred Computer Vision, the International Workshop on Video Segmentation in Computer Vision, the Workshop: My Car Has Eyes: Intelligent Vehicle with Vision Technology, the Third Workshop on E-Heritage, and the Workshop on Computer Vision for Affective Computing. LNCS 9010 contains the papers selected for the Workshop on Feature and Similarity for Computer Vision, the Third International Workshop on Intelligent Mobile and Egocentric Vision, and the Workshop on Human Identification for Surveillance.

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