

## Real Time People Counting From Depth Imagery Of Crowded

The four volume set LNCS 9489, LNCS 9490, LNCS 9491, and LNCS 9492 constitutes the proceedings of the 22nd International Conference on Neural Information Processing, ICONIP 2015, held in Istanbul, Turkey, in November 2015. The 231 full papers presented were carefully reviewed and selected from 375 submissions. The 4 volumes represent topical sections containing articles on Learning Algorithms and Classification Systems; Artificial Intelligence and Neural Networks: Theory, Design, and Applications; Image and Signal Processing; and Intelligent Social Networks.

This book constitutes the refereed proceedings of the 11th International Conference entitled Beyond Databases, Architectures and Structures, BDAS 2015, held in Ustro?, Poland, in May 2015. This book consists of 53 carefully revised selected papers that are assigned to 8 thematic groups: database architectures and performance; data integration, storage and data warehousing; ontologies and semantic web; artificial intelligence, data mining and knowledge discovery; image analysis and multimedia mining; spatial data analysis; database systems development; application of database systems.

Closed Circuit TeleVision (CCTV) cameras have been increasingly deployed pervasively in public spaces including retail centres and shopping malls. Intelligent video analytics aims to automatically analyze content of massive amount of public space video data and has been one of the most active areas of computer vision research in the last two decades. Current focus of video analytics research has been largely on detecting alarm events and abnormal behaviours for public safety and security applications. However, increasingly CCTV installations have also been exploited for gathering and analyzing business intelligence information, in order to enhance marketing and operational efficiency. For example, in retail environments, surveillance cameras can be utilised to collect statistical information about shopping behaviour and preference for marketing (e.g., how many people entered a shop; how many females/males or which age groups of people showed interests to a particular product; how long did they stay in the shop; and what are the frequent paths), and to measure operational efficiency for improving customer experience. Video analytics has the enormous potential for non-security oriented commercial applications. This book presents the latest developments on video analytics for business intelligence applications. It provides both academic and commercial practitioners an understanding of the state-of-the-art and a resource for potential applications and successful practice.

This book contains accepted papers presented at SOCO 2020 conference held in the beautiful and historic city of Burgos (Spain), in September 2020. Soft computing represents a collection or set of computational techniques in machine learning, computer science and some engineering disciplines, which investigate, simulate, and analyze very complex issues and phenomena. After a through peer-review process, the SOCO 2020 International Program Committee selected 83 papers which are published in these conference proceedings and represents an acceptance rate of 35%. Due to the COVID-19 outbreak, the SOCO 2020 edition was blended, combining on-site and on-line participation. In this relevant edition a special emphasis was put on the organization of special sessions. Eleven special session were organized related to relevant topics such as: Soft Computing Applications in Precision Agriculture, Manufacturing and Management Systems, Management of Industrial and Environmental Enterprises, Logistics and Transportation Systems, Robotics and Autonomous Vehicles, Computer Vision, Laser-Based Sensing and Measurement and other topics such as Forecasting Industrial Time Series, IoT, Big Data and Cyber Physical Systems, Non-linear Dynamical Systems and Fluid Dynamics, Modeling and Control systems The selection of papers was extremely rigorous in order to maintain the high quality of SOCO conference editions and we would like to thank the members of the Program Committees for their hard work in the reviewing process. This is a crucial process to the creation of a high standard conference and the SOCO conference would not exist without their help.

The book is about all aspects of computing, communication, general sciences and educational research covered at the Second International Conference on Computer & Communication Technologies held during 24-26 July 2015 at Hyderabad. It hosted by CMR Technical Campus in association with Division – V (Education & Research) CSI, India. After a rigorous review only quality papers are selected and included in this book. The entire book is divided into three volumes. Three volumes cover a variety of topics which include medical imaging, networks, data mining, intelligent computing, software design, image processing, mobile computing, digital signals and speech processing, video surveillance and processing, web mining, wireless sensor networks, circuit analysis, fuzzy systems, antenna and communication systems, biomedical signal processing and applications, cloud computing, embedded systems applications and cyber security and digital forensic. The readers of these volumes will be highly benefited from the technical contents of the topics.

The three-volume set LNCS 11857, 11858, and 11859 constitutes the refereed proceedings of the Second Chinese Conference on Pattern Recognition and Computer Vision, PRCV 2019, held in Xi'an, China, in November 2019. The 165 revised full papers presented were carefully reviewed and selected from 412 submissions. The papers have been organized in the following topical sections: Part I: Object Detection, Tracking and Recognition, Part II: Image/Video Processing and Analysis, Part III: Data Analysis and Optimization.

The two volume sets LNCS 8033 and 8034 constitutes the refereed proceedings of the 9th International Symposium on Visual Computing, ISVC 2013, held in Rethymnon, Crete, Greece, in July 2013. The 63 revised full papers and 35 poster papers presented together with 32 special track papers were carefully reviewed and selected from more than 220 submissions. The papers are organized in topical sections: Part I (LNCS 8033) comprises computational bioimaging; computer graphics; motion, tracking and recognition;

segmentation; visualization; 3D mapping, modeling and surface reconstruction; feature extraction, matching and recognition; sparse methods for computer vision, graphics and medical imaging; face processing and recognition. Part II (LNCS 8034) comprises topics such as visualization; visual computing with multimodal data streams; visual computing in digital cultural heritage; intelligent environments: algorithms and applications; applications; virtual reality.

"This book focuses on new and original research ideas and findings in three broad areas: computing, analytics, and networking and their potential applications in the various domains of engineering - an emerging, interdisciplinary area in which a wide range of theories and methodologies are being investigated and developed to tackle complex and challenging real-world problems. The book also features keynote presentations and papers from the International Conference on Computing Analytics and Networking (ICCAN 2019), which offers an open forum for scientists, researchers and technocrats in academia and industry from around the globe to present and share state-of-the-art concepts, prototypes, and innovative research ideas in diverse fields. Providing inspiration for postgraduate students and young researchers working in the field of computer science & engineering, the book also discusses hardware technologies and future communication technologies, making it useful for those in the field of electronics." -- Prové de l'editor. This book gathers outstanding research papers presented at the International Joint Conference on Computational Intelligence (IJCCI 2018), which was held at Daffodil International University on 14–15 December 2018. The topics covered include: collective intelligence, soft computing, optimization, cloud computing, machine learning, intelligent software, robotics, data science, data security, big data analytics, and signal and natural language processing.

This book constitutes the refereed proceedings of the 5th Mexican Conference on Pattern Recognition, MCPR 2013, held in Huatulco, Mexico, in June 2013. The 36 revised full papers and two keynotes presented were carefully reviewed and selected from 81 submissions and are organized in topical sections on computer vision; image processing; pattern recognition and artificial intelligence; neural networks; document processing.

This volume contains the proceedings of UIC 2008, the 5th International Conference on Ubiquitous Intelligence and Computing: Building Smart Worlds in Real and Cyber Spaces. The conference was held in Oslo, Norway, during June 23–25, 2008. The event was the 5th meeting of this conference series. USW 2005 (First International Workshop on Ubiquitous Smart World), held in March 2005 in Taiwan, was the 1st 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, by UIC 2006 (Third International Conference on Ubiquitous Intelligence and Computing: Building Smart Worlds in Real and Cyber Spaces) held in September 2006 in Wuhan and Three Gorges, China, and by UIC 2007 held in July 2007 in Hong Kong. Ubiquitous computers, networks and information are paving the road to a smart world in which computational intelligence is distributed throughout the physical environment to provide trustworthy and relevant services to people.

This book constitutes the thoroughly refereed proceedings of the 15th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2013, held in Poznań, Poland, in October 2013. The 63 revised full papers were carefully selected from 111 submissions. The topics covered are acquisition, pre-processing and coding, biometry, classification and recognition, depth, 3D and tracking, efficient implementation and frameworks, low level image analysis, segmentation and video analysis.

This is the proceedings of the 11th International Workshop on Structural and Syntactic Pattern Recognition, SSPR 2006 and the 6th International Workshop on Statistical Techniques in Pattern Recognition, SPR 2006, held in Hong Kong, August 2006 alongside the Conference on Pattern Recognition, ICPR 2006. 38 revised full papers and 61 revised poster papers are included, together with 4 invited papers covering image analysis, character recognition, bayesian networks, graph-based methods and more.

This volume includes papers presented at IIH-MSP 2017, the 13th International Conference on Intelligent Information Hiding and Multimedia Signal Processing, held on 12–15 August 2017 in Matsue, Shimane, Japan. The conference covered topics ranging from information hiding and security, and multimedia signal processing and networking, to bio-inspired multimedia technologies and systems. This volume focuses on subjects related to multimedia security and applications, wearable computing, Internet of Things (IoT) privacy and information security, biomedical system design and applications, emerging techniques and applications, soft computing and applications, applications of image encoding and rendering, and information hiding and its criteria. Updated with the latest research outcomes and findings, the papers presented appeal to researchers and students in the corresponding fields.

The two-volume set LNCS 10484 and 10485 constitutes the refereed proceedings of the 19th International Conference on Image Analysis and Processing, ICIAP 2017, held in Catania, Italy, in September 2017. The 138 papers presented were carefully reviewed and selected from 229 submissions. The papers cover both classic and the most recent trends in image processing, computer vision, and pattern recognition, addressing both theoretical and applicative aspects. They are organized in the following topical sections: video analysis and understanding; pattern recognition and machine learning; multiview geometry and 3D computer vision; image analysis, detection and recognition; multimedia; biomedical and assistive technology; information forensics and security; imaging for cultural heritage and archaeology; and imaging solutions for improving the quality of life.

The proceedings includes cutting-edge research articles from the Fourth International Conference on Signal and Image Processing (ICSIP), which is organised by Dr. N.G.P. Institute of Technology, Kalapatti, Coimbatore. The Conference provides academia and industry to discuss and present the latest technological advances and research results in the fields of theoretical, experimental, and application of signal, image and video processing. The book provides latest and most informative content from engineers and scientists in signal, image and video processing from around the world, which will benefit the future research community to work in a more cohesive and collaborative way.

Research on Agents and Multi-agent Systems has matured during the last decade and many effective applications of this technology are now deployed. PAAMS provides an international forum to presents and discuss the latest scientific developments and their effective applications, to assess the impact of the approach, and to facilitate technology transfer. PAAMS started as a local initiative, but since grown to become the international yearly platform to present, to discuss, and to disseminate the latest developments and the most important outcomes related to real-world applications. It provides a unique opportunity to bring multi-disciplinary experts, academics and practitioners together to Exchange their experience in the development and deployment

of Agents and Multi-agents systems. PAAMS intends to bring together researchers and developers from industry and the academic world to report on the latest scientific and technical advances on the application of multi-agent systems, to discuss and debate the major issues, and to showcase the latest systems using agent based technology. It will promote a forum for discussion on how agent based techniques, methods and tools help system designers to accomplish the mapping between available agent technology and application needs. Other stakeholders should be rewarded with a better understanding of the potential and challenges of the agent-oriented approach. This edition of PAAMS special sessions is organized by the Bioinformatics, Intelligent System and Educational Technology Research Group (<http://bisite.usal.es>) of the University of Salamanca. The present edition was held in Salamanca, Spain, from 22nd to 24th May 2013.

This book constitutes the refereed proceedings of the 16th International Conference on Artificial Reality and Telexistence, ICAT 2006, held in Hangzhou, China in November/December 2006. The 138 revised papers cover anthropomorphic intelligent robotics, artificial life, augmented reality, distributed and collaborative VR system, motion tracking, real time computer simulation virtual reality, as well as VR interaction and navigation techniques.

This is part 1 of the 3-volume set CCIS 1252 until CCIS 1254 that constitutes the refereed proceedings of the 6th International Conference on Artificial Intelligence and Security, ICAIS 2020, which was held in Hohhot, China, in July 2020. The conference was formerly called "International Conference on Cloud Computing and Security" with the acronym ICCCS. The total of 178 full papers and 8 short papers presented in this 3-volume proceedings was carefully reviewed and selected from 1064 submissions. The papers were organized in topical sections as follows: Part I: artificial intelligence; Part II: artificial intelligence; Internet of things; information security; Part III: information security; big data and cloud computing; information processing.

The book presents high-quality research work on cutting-edge technologies and the most-happening areas of computational intelligence and data engineering. It includes selected papers from the International Conference on Computational Intelligence and Data Engineering (ICCIDE 2018). The conference was conceived as a forum for researchers from academia and industry to present and share ideas and results and allow them to develop a comprehensive understanding of the challenges of technological advancements from different viewpoints. As such, this book helps foster strong links between academia and industry. It covers various topics, including collective intelligence, intelligent transportation systems, fuzzy systems, Bayesian network, ant colony optimization, data privacy and security, data mining, data warehousing, big data analytics, cloud computing, natural language processing, swarm intelligence, and speech processing. With the rapid development of Machinery, Materials Science and Engineering Application, discussion on new ideas related mechanical engineering and materials science arise. In this proceedings volume the author(s) are focussed on Machinery, Materials Science and Engineering Applications and other related topics. The Conference has pro

The two-volume set LNICST 150 and 151 constitutes the thoroughly refereed post-conference proceedings of the First International Internet of Things Summit, IoT360 2014, held in Rome, Italy, in October 2014. This volume contains 30 revised full papers carefully reviewed and selected from 51 submissions at the following three conferences: the First International Conference on Mobility and Smart Cities, Mobility IoT 2014; the First International Conference on Software-Defined and Virtualized Future Wireless Networks, SDWN 2014; and the First International Conference on Safety and Security in Internet of Things, SaSelot 2014. This volume also includes 13 special contributions from recognized experts. The papers in this volume are dedicated to infrastructure-based solutions that will support the deployment of IoT services and applications in the future. They cover the following topics: sustainable solutions to the mobility and smart cities agenda; software defined techniques for supporting more flexible use of wireless and wireless sensor networks; opportunities and risks related to the safety and security in the IoT domain.

Discover how to design, deliver, and implement high-density communications solutions High-Density Smart Campus Communications: Technologies, Integration, Implementation and Applications delivers a concise synthesis of the deployment technologies, strategies, and implementation issues that arise in the design and application of real-world high-density communications environments in airports, stadiums, convention centers, shopping malls, classrooms, hospitals, cruise ships, and more. You'll learn future-oriented strategies for the implementation of next-generation Wi-Fi and 5G communications networks in high density environments, like smart airports, advanced airport robotics, and wayfinding. You'll also discover effective deployment strategies using a comprehensive case study based on a top-10 airport deployment by the Slice Wireless team. The book includes information about security requirements, large and boutique solution providers, applications, unbundled services, implementation planning and design, as well as operations and network management. An epilogue written by Josie Jo-Anne Dressendofer of Slice Wireless concludes the text. Readers will also benefit from the inclusion of: A thorough introduction to background and functional requirements for high density communications, including requirements for airports, stadiums, convention centers, classrooms, train and subway stations, and smart cities An exploration of traditional voice and cellular technology, including DAS designs and architectures and microcellularization Practical discussions of traditional data and Wi-Fi, including throughput/interference and security A treatment of evolved hotspot connectivity, including Wi-Fi and 5G Perfect for telecommunication researchers and engineers, networking professionals, technology professionals, campus administrators, and equipment vendors, High-Density Smart Campus Communications will also earn a place in the libraries of senior undergraduate and graduate students in applied communications technologies.

This book and its companion volume, LNCS vols. 7331 and 7332, constitute the Proceedings of the Third International conference on Swarm Intelligence, ICSI 2012, held in Shenzhen, China in June 2012. The 145 full papers presented were carefully reviewed and selected from 247 submissions. The papers are organized in 27 cohesive sections covering all major topics of swarm intelligence research and developments.

Discover how to measure, control, model, and plan people flow within modern buildings with this one-stop resource from a leading professional People Flow in Buildings delivers a comprehensive and insightful description of people flow, analysis with software-based tools. The book offers readers an up-to-date overview of mathematical optimization methods used in control systems and transportation planning methods used to manage vertical and horizontal transportation. The text offers a starting point for selecting the optimal transportation equipment for new buildings and those being modernized. It provides insight into making passenger journeys pleasant and smooth, while providing readers with an examination of how modern trends in

building usage, like increasingly tall buildings and COVID-19, effect people flow planning in buildings. People Flow in Buildings clearly defines the terms and symbols it includes and then moves on to deal with the measurement, control, modelling, and planning of people flow within buildings of all kinds. Each chapter contains an introduction describing its contents and the background of the subject. Included appendices describe measured passenger data and performed analyses. Readers will also benefit from the inclusion of: A thorough introduction to people-counting methods, including counting technology inside and outside buildings, passenger traffic components, and manual people-counting An examination of the passenger arrival process in building, including the Poisson arrival process and probability density function, and passenger arrivals in batches A consideration of daily vertical passenger traffic profiles, including two-way traffic profiles and the effects of inter-floor traffic An exploration of people flow solutions, including stairs, escalators, and elevators with collective and destination group control systems, as well as double-deck and multicar system People flow calculation and simulation models Elevator planning with ISO simulation method Elevator planning and evacuation of tall buildings Perfect for software designers in the private sector and academia, People Flow in Buildings will also earn a place in the libraries of elevator consultants, manufacturers, and architects who seek a one-stop reference for transportation devices from a functional and design perspective, as opposed to a hardware perspective.

The two volume-set, LNCS 7930 and LNCS 7931, constitutes the refereed proceedings of the 5th International Work-Conference on the Interplay between Natural and Artificial Computation, IWINAC 2013, held in Mallorca, Spain, in June 2013. The 92 revised full papers presented in LNCS 7930 and LNCS 7931 were carefully reviewed and selected from numerous submissions. The first part, LNCS 7930, entitled "Natural and Artificial Models in Computation and Biology", includes all the contributions mainly related to the methodological, conceptual, formal, and experimental developments in the fields of neurophysiology and cognitive science. The second part, LNCS 7931, entitled "Natural and Artificial Computation in Engineering and Medical Applications", contains the papers related to bioinspired programming strategies and all the contributions related to the computational solutions to engineering problems in different application domains, specially Health applications, including the CYTED "Artificial and Natural Computation for Health" (CANS) research network papers. In addition, this two volume-set reflects six interesting areas: cognitive robotics; natural computing; wetware computation; quality of life technologies; biomedical and industrial perception applications; and Web intelligence and neuroscience.

Multimedia Security: Watermarking, Steganography, and Forensics outlines essential principles, technical information, and expert insights on multimedia security technology used to prove that content is authentic and has not been altered. Illustrating the need for improved content security as the Internet and digital multimedia applications rapidly evolve, this book presents a wealth of everyday protection application examples in fields including multimedia mining and classification, digital watermarking, steganography, and digital forensics. Giving readers an in-depth overview of different aspects of information security mechanisms and methods, this resource also serves as an instructional tool on how to use the fundamental theoretical framework required for the development of extensive advanced techniques. The presentation of several robust algorithms illustrates this framework, helping readers to quickly master and apply fundamental principles. Presented case studies cover: The execution (and feasibility) of techniques used to discover hidden knowledge by applying multimedia duplicate mining methods to large multimedia content Different types of image steganographic schemes based on vector quantization Techniques used to detect changes in human motion behavior and to classify different types of small-group motion behavior Useful for students, researchers, and professionals, this book consists of a variety of technical tutorials that offer an abundance of graphs and examples to powerfully convey the principles of multimedia security and steganography. Imparting the extensive experience of the contributors, this approach simplifies problems, helping readers more easily understand even the most complicated theories. It also enables them to uncover novel concepts involved in the implementation of algorithms, which can lead to the discovery of new problems and new means of solving them.

This book presents selected proceedings of ICCI-2017, discussing theories, applications and future directions in the field of computational intelligence (CI). ICCI-2017 brought together international researchers presenting innovative work on self-adaptive systems and methods. This volume covers the current state of the field and explores new, open research directions. The book serves as a guide for readers working to develop and validate real-time problems and related applications using computational intelligence. It focuses on systems that deal with raw data intelligently, generate qualitative information that improves decision-making, and behave as smart systems, making it a valuable resource for researchers and professionals alike.

This book describes the latest research advances, innovations, and visions in the field of robotics as presented by leading researchers, engineers, and practitioners from around the world at the 14th International Conference on Intelligent Autonomous Systems (IAS-14), held in Shanghai, China in July 2016. The contributions amply demonstrate that robots, machines and systems are rapidly achieving intelligence and autonomy, attaining more and more capabilities such as mobility and manipulation, sensing and perception, reasoning, and decision-making. They cover a wide range of research results and applications, and particular attention is paid to the emerging role of autonomous robots and intelligent systems in industrial production, which reflects their maturity and robustness. The contributions were selected by means of a rigorous peer-review process and highlight many exciting and visionary ideas that will further galvanize the research community and spur novel research directions. The series of biennial IAS conferences, which began in 1986, represents a premiere event in the field of robotics.

The four-volume set LNCS 6492-6495 constitutes the thoroughly refereed post-proceedings of the 10th Asian Conference on Computer Vision, ACCV 2009, held in Queenstown, New Zealand in November 2010. All together the four volumes present 206 revised papers selected from a total of 739 Submissions. All current issues in computer vision are addressed ranging from algorithms that attempt to automatically understand the content of images, optical methods coupled with computational techniques that enhance and improve images, and capturing and analyzing the world's geometry while preparing the higher level image and shape understanding. Novel geometry techniques, statistical learning methods, and modern algebraic procedures are dealt with as well.

This book constitutes the proceedings of the 6th International Conference on Future Data and Security Engineering, FDSE 2019, held in Nha Trang City, Vietnam, in November 2019. The 38 full papers and 14 short papers presented together with 2 papers of keynote speeches were carefully reviewed and selected from 159 submissions. The selected papers are organized into the following topical headings: Invited Keynotes, Advanced Studies in Machine Learning, Advances in Query Processing and Optimization, Big Data Analytics and Distributed Systems, Deep

Learning and Applications, Cloud Data Management and Infrastructure, Security and Privacy Engineering, Authentication and Access Control, Blockchain and Cybersecurity, Emerging Data Management Systems and Applications, Short papers: Security and Data Engineering.

This book presents the proceedings of the fifth International Symposium on Modelling and Implementation of Complex Systems (MISC 2018). The event was held in Laghouat, Algeria, on December 16–18, 2018. The 25 papers gathered here have been selected from 109 submissions using a strict peer-review process, and address a range of topics concerning the theory and applications of networking and distributed computing, including: cloud computing and the IoT, metaheuristics and optimization, computational intelligence, software engineering and formal methods.

This book constitutes the proceedings of the 20th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2020, held in Auckland, New Zealand, in February 2020. The 48 papers presented in this volume were carefully reviewed and selected from a total of 78 submissions. They were organized in topical sections named: deep learning; biomedical image analysis; biometrics and identification; image analysis; image restoration, compression and watermarking; tracking, and mapping and scene analysis.

The two-volume set LNCS 8935 and 8936 constitutes the thoroughly refereed proceedings of the 21st International Conference on Multimedia Modeling, MMM 2015, held in Sydney, Australia, in January 2015. The 49 revised regular papers, 24 poster presentations, were carefully reviewed and selected from 189 submissions. For the three special session, a total of 18 papers were accepted for MMM 2015. The three special sessions are Personal (Big) Data Modeling for Information Access and Retrieval, Social Geo-Media Analytics and Retrieval and Image or video processing, semantic analysis and understanding. In addition, 9 demonstrations and 9 video showcase papers were accepted for MMM 2015. The accepted contributions included in these two volumes represent the state-of-the-art in multimedia modeling research and cover a diverse range of topics including: Image and Video Processing, Multimedia encoding and streaming, applications of multimedia modelling and 3D and augmented reality.

This proceedings book emphasizes adopting artificial intelligence-based and sustainable energy efficiency integrated with clear objectives, to involve researchers, students, and specialists in their development and implementation adequately in achieving objectives. The integration of artificial intelligence into renewable energetic systems would allow the rapid development of a knowledge-based economy suitable to the energy transition, while fully integrating the renewables into the global economy. This is how artificial intelligence has hand in by conceptualizing this transition and above all by saving time. The knowledge economy is valued within the smart cities, which are fast becoming the favorite places where the energy transition will take place efficiently and intelligently by implementing integrated approaches to energy saving and energy supply and integrated urban approaches that go beyond individual interventions in buildings or transport modes using information and communication technologies.

The international conference on "Pedestrian and Evacuation Dynamics", held on February 27-29, 2008 at Wuppertal University in Germany, was the fourth in this series after successful meetings in Duisburg (2001), Greenwich (2003) and Vienna (2005). The conference was aimed at improving the scientific exchange between scientists, experts and practitioners of various fields of pedestrian and evacuation dynamics and featured: the analysis of evacuation processes and pedestrian motion, modeling of pedestrian dynamics in various situations, experiments on pedestrian dynamics, human behavior research, regulatory action. All these topics are included in this book to give a broad and state-of-the-art overview of pedestrian and evacuation dynamics.

The book is a collection of high-quality peer-reviewed research papers presented in the International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems (ICAIECES 2017). The book discusses wide variety of industrial, engineering and scientific applications of the emerging techniques. Researchers from academia and industry have presented their original work and ideas, information, techniques and applications in the field of communication, computing and power technologies.

The rate of cybercrimes is increasing because of the fast-paced advancements in computer and internet technology. Crimes employing mobile devices, data embedding/mining systems, computers, network communications, or any malware impose a huge threat to data security. Countering Cyber Attacks and Preserving the Integrity and Availability of Critical Systems addresses current problems and issues emerging in cyber forensics and investigations and proposes new solutions that can be adopted and implemented to counter security breaches within various organizations. The publication examines a variety of topics such as advanced techniques for forensic developments in computer and communication-link environments and legal perspectives including procedures for cyber investigations, standards, and policies. It is designed for policymakers, forensic analysts, technology developers, security administrators, academicians, researchers, and students.

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