

Automatic Detection Of Salient Objects And Spatial

From Visual Surveillance to Internet of Things: Technology and Applications is an invaluable resource for students, academicians and researchers to explore the utilization of Internet of Things with visual surveillance and its underlying technologies in different application areas. Using a series of present and future applications – business insights, indoor-outdoor securities, smart grids, human detection and tracking, intelligent traffic monitoring, e-health department and many more – this book will support readers to obtain a deeper knowledge in implementing IoT with visual surveillance. The book offers comprehensive coverage of the most essential topics, including: The rise of machines and communications to IoT (3G, 5G) Tools and technologies of IoT with visual surveillance IoT with visual surveillance for real-time applications IoT architectures Challenging issues and novel solutions for realistic applications Mining and tracking of motion-based object data Image processing and analysis into the unified framework to understand both IOT and computer vision applications This book will be an ideal resource for IT professionals, researchers, under- or post-graduate students, practitioners, and technology developers who are interested in gaining a deeper knowledge in implementing IoT with visual surveillance, critical applications domains, technologies, and solutions to handle relevant challenges. Dr. Lavanya Sharma is an Assistant Professor in the Amity Institute of Information Technology at Amity University UP, Noida, India. She is a recipient of several prestigious awards during her academic career. She is an active nationally-recognized researcher who produces dozens of papers in her field. She has contributed as an Organizing Committee member and session chair at Springer and IEEE conferences. Prof. Pradeep K. Garg worked as a Vice Chancellor, Uttarakhand Technical University, Dehradun. Presently he is working in the department of Civil Engineering, IIT Roorkee as a professor. Prof. Garg has published more than 300 technical papers in national and international conferences and journals. He has completed 26 research projects funded by various government agencies, guided 27 PhD candidates, and provided technical services to 84 consultancy projects on various aspects of Civil Engineering.

The seven-volume set comprising LNCS volumes 8689-8695 constitutes the refereed proceedings of the 13th European Conference on Computer Vision, ECCV 2014, held in Zurich, Switzerland, in September 2014. The 363 revised papers presented were carefully reviewed and selected from 1444 submissions. The papers are organized in topical sections on tracking and activity recognition; recognition; learning and inference; structure from motion and feature matching; computational photography and low-level vision; vision; segmentation and saliency; context and 3D scenes; motion and 3D scene analysis; and poster sessions. Target object detection and identification are among the primary uses for a remote sensing system. This is crucial in several fields, including environmental and urban monitoring, hazard and disaster management, and defense and military. In recent years, these analyses have used the tremendous amount of data acquired by sensors mounted on satellite, airborne, and unmanned aerial vehicle (UAV) platforms. This book promotes papers exploiting different remote sensing data for target object detection and identification, such as synthetic aperture radar (SAR) imaging and multispectral and hyperspectral imaging. Several cutting-edge

contributions, which provide examples of how to select of a technology or another depending on the specific application, will be detailed.

This book constitutes the refereed proceedings of the Third International Conference on Image and Video Retrieval, CIVR 2004, held in Dublin, Ireland in July 2004. The 31 revised full papers and 44 poster papers presented were carefully reviewed and selected from 125 submissions. The papers are organized in topical sections on image annotation and user searching, image and video retrieval algorithms, person and event identification for retrieval, content-based image and video retrieval, and user perspectives.

The eight-volume set comprising LNCS volumes 9905-9912 constitutes the refereed proceedings of the 14th European Conference on Computer Vision, ECCV 2016, held in Amsterdam, The Netherlands, in October 2016. The 415 revised papers presented were carefully reviewed and selected from 1480 submissions. The papers cover all aspects of computer vision and pattern recognition such as 3D computer vision; computational photography, sensing and display; face and gesture; low-level vision and image processing; motion and tracking; optimization methods; physicsbased vision, photometry and shape-from-X; recognition: detection, categorization, indexing, matching; segmentation, grouping and shape representation; statistical methods and learning; video: events, activities and surveillance; applications. They are organized in topical sections on detection, recognition and retrieval; scene understanding; optimization; image and video processing; learning; action activity and tracking; 3D; and 9 poster sessions.

This book provides insights into the research in the fields of artificial intelligence in combination with Internet of Things (IoT) technologies. Today, the integration of artificial intelligence and IoT technologies is attracting considerable interest from both researchers and developers from academic fields and industries around the globe. It is foreseeable that the next generation of IoT research will focus on artificial intelligence/beyond artificial intelligence approaches. The rapidly growing numbers of artificial intelligence algorithms and big data solutions have significantly increased the number of potential applications for IoT technologies, but they have also created new challenges for the artificial intelligence community. This book shares the latest scientific advances in this area.

The seven-volume set comprising LNCS volumes 7572-7578 constitutes the refereed proceedings of the 12th European Conference on Computer Vision, ECCV 2012, held in Florence, Italy, in October 2012. The 408 revised papers presented were carefully reviewed and selected from 1437 submissions. The papers are organized in topical sections on geometry, 2D and 3D shapes, 3D reconstruction, visual recognition and classification, visual features and image matching, visual monitoring: action and activities, models, optimisation, learning, visual tracking and image registration, photometry: lighting and colour, and image segmentation.

As cameras become more pervasive in our daily life, vast amounts of video data are generated. The popularity of YouTube and similar websites such as Tudou and Youku provides strong evidence for the increasing role of video in society. One of the main

challenges confronting us in the era of information technology is to - fectively rely on the huge and rapidly growing video data accumulating in large multimedia archives. Innovative video processing and analysis techniques will play an increasingly important role in resolving the difficult task of video search and retrieval. A wide range of video-based applications have benefited from - vances in video search and mining including multimedia information mana- ment, human-computer interaction, security and surveillance, copyright prot- tion, and personal entertainment, to name a few. This book provides an overview of emerging new approaches to video search and mining based on promising methods being developed in the computer vision and image analysis community. Video search and mining is a rapidly evolving discipline whose aim is to capture interesting patterns in video data. It has become one of the core areas in the data mining research community. In comparison to other types of data mining (e. g. text), video mining is still in its infancy. Many challenging research problems are facing video mining researchers.

This book contains revised and extended versions of selected papers from the 8th International Conference on Agents and Artificial Intelligence, ICAART 2016, held in Rome, Italy, in February 2016. The 17 revised full papers were carefully reviewed and selected from 149 initial submissions. The papers are organized in two sections: agents and artificial intelligence. They address open research trends and highlight in an innovative manner the trends in intelligent multi-agent systems, natural language processing, and knowledge representation.

Database Semantics: Semantic Issues in Multimedia Systems reflects the state of the art of emerging research on the meaning of multimedia information, as presented during IFIP's Eighth Data Semantics Working Conference (DS-8), organized by its Working Group 2.6 on Databases, and held at Rotorua, New Zealand, in January 1999. DS-8 was planned as an active forum for researchers and practitioners focusing on those issues that involve the semantics of the information represented, stored, and manipulated by multimedia systems. Depending on the topic and state of research, issues may be covered either deeply theoretically or quite practically, or even both. These proceedings contain twenty-one papers carefully selected by an International Programme Committee and organized in six thematic areas: Video Data Modelling and Use; Image Databases; Applications of Multimedia Systems; Multimedia Modeling in General; Multimedia Information Retrieval; Semantics and Metadata. For almost every area, important topics and issues include: data modeling and query languages for media such as audio, video, and images; methodological aspects of multimedia database design; intelligent multimedia information retrieval; knowledge discovery and data mining in multimedia information; multimedia user interfaces. Three visionary keynote addresses, by famous experts Ramesh Jain, Hermann Maurer and Masao Sakauchi, set the stage for discussion and future directions for the field. The collection of papers that resulted now offers a glimpse of the excitement and enthusiasm from DS-8. Database Semantics: Semantic Issues in Multimedia Systems is suitable as a secondary text for a graduate-level course on database systems, multimedia

systems, or information retrieval systems and as a reference for practitioners and researchers in industry.

This volume provides an overview of multimedia data mining and knowledge discovery and discusses the variety of hot topics in multimedia data mining research. It describes the objectives and current tendencies in multimedia data mining research and their applications. Each part contains an overview of its chapters and leads the reader with a structured approach through the diverse subjects in the field.

The two-volume set CCIS 662 and CCIS 663 constitutes the refereed proceedings of the 7th Chinese Conference on Pattern Recognition, CCPR 2016, held in Chengdu, China, in November 2016. The 121 revised papers presented in two volumes were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections on robotics; computer vision; basic theory of pattern recognition; image and video processing; speech and language; emotion recognition.

The first book of its kind devoted to this topic, this comprehensive text/reference presents state-of-the-art research and reviews current challenges in the application of computer vision to problems in sports. Opening with a detailed introduction to the use of computer vision across the entire life-cycle of a sports event, the text then progresses to examine cutting-edge techniques for tracking the ball, obtaining the whereabouts and pose of the players, and identifying the sport being played from video footage. The work concludes by investigating a selection of systems for the automatic analysis and classification of sports play. The insights provided by this pioneering collection will be of great interest to researchers and practitioners involved in computer vision, sports analysis and media production.

This two volume set (CCIS 901 and 902) constitutes the refereed proceedings of the 4th International Conference of Pioneering Computer Scientists, Engineers and Educators, ICPCSEE 2018 (originally ICYCSEE) held in Zhengzhou, China, in September 2018. The 125 revised full papers presented in these two volumes were carefully reviewed and selected from 1057 submissions. The papers cover a wide range of topics related to basic theory and techniques for data science including mathematical issues in data science, computational theory for data science, big data management and applications, data quality and data preparation, evaluation and measurement in data science, data visualization, big data mining and knowledge management, infrastructure for data science, machine learning for data science, data security and privacy, applications of data science, case study of data science, multimedia data management and analysis, data-driven scientific research, data-driven bioinformatics, data-driven healthcare, data-driven management, data-driven eGovernment, data-driven smart city/planet, data marketing and economics, social media and recommendation systems, data-driven security, data-driven business model innovation, social and/or organizational impacts of data science.

This book presents the state of the art in the areas of ontology evolution and knowledge-driven multimedia information

extraction, placing an emphasis on how the two can be combined to bridge the semantic gap. This was also the goal of the EC-sponsored BOEMIE (Bootstrapping Ontology Evolution with Multimedia Information Extraction) project, to which the authors of this book have all contributed. The book addresses researchers and practitioners in the field of computer science and more specifically in knowledge representation and management, ontology evolution, and information extraction from multimedia data. It may also constitute an excellent guide to students attending courses within a computer science study program, addressing information processing and extraction from any type of media (text, images, and video). Among other things, the book gives concrete examples of how several of the methods discussed can be applied to athletics (track and field) events.

The volume LNCS 8866 constitutes the refereed proceedings of the 11th International Symposium on Neural Networks, ISNN 2014, held in Hong Kong and Macao, China on November/ December 2014. The 71 revised full papers presented were carefully reviewed and selected from 119 submissions. These papers cover all major topics of the theoretical research, empirical study and applications of neural networks research as follows. The focus is on following topics such as analysis, modeling, and applications.

The emergence of content- and context-aware search engines, which not only personalize searching and delivery but also the content, has caused the emergence of new infrastructures capable of end-to-end ubiquitous transmission of personalized multimedia content to any device on any network at any time. Personalizing and adapting content requires processing of content and recognizing patterns in users' behaviour on the other. Personalizing and adapting the semantic content of multimedia enables applications to make just-in-time intelligent decisions regarding this content, which in turn makes interaction with the multimedia content an individual and individually rewarding experience. Highlighting the changing nature of the field, *Advances in Semantic Media Adaptation and Personalization, Volume Two* discusses the state of the art, recent advances, and future outlooks for semantic media adaptation and personalization. Topics include: Collaborative Content Modeling Automatic Content Feature Extraction to Content Models Semantic Languages for Content Description Video Content Adaptation Adaptive Video Content Retrieval Content Similarity Detection Personalized Content Podcasting Adaptive Web Interaction As content and service providers recognize the value of new services and new markets, they will invest in technologies that adapt and personalize content. Industry, in response, has released new standards such as MPEG-7, MPEG21, and VC-1 that enable propagation of semantic media, adaptation, and personalization. Consequently, a broad range of applications are emerging across many industry sectors, such as music, film, games, television, and sports. Bringing together insight from researchers and practitioners, this book provides a sampling of the latest thinking in the field.

Spread in 133 articles divided in 20 sections the present treatises broadly discusses: Part 1: Image Processing Part 2: Radar and Satellite Image Processing Part 3: Image Filtering Part 4: Content Based Image Retrieval Part 5: Color Image Processing and

Video Processing Part 6: Medical Image Processing Part 7: Biometric Part 8: Network Part 9: Mobile Computing Part 10: Pattern Recognition Part 11: Pattern Classification Part 12: Genetic Algorithm Part 13: Data Warehousing and Mining Part 14: Embedded System Part 15: Wavelet Part 16: Signal Processing Part 17: Neural Network Part 18: Nanotechnology and Quantum Computing Part 19: Image Analysis Part 20: Human Computer Interaction

During the last three decades, there have been enormous advances in our understanding of the neural mechanisms of selective attention at the network as well as the cellular level. The Oxford Handbook of Attention brings together the different research areas that constitute contemporary attention research into one comprehensive and authoritative volume. In 40 chapters, it covers the most important aspects of attention research from the areas of cognitive psychology, neuropsychology, human and animal neuroscience, computational modelling, and philosophy. The book is divided into 4 main sections. Following an introduction from Michael Posner, the book starts by looking at theoretical models of attention. The next two sections are dedicated to spatial attention and non-spatial attention respectively. Within section 4, the authors consider the interactions between attention and other psychological domains. The last two sections focus on attention-related disorders, and finally, on computational models of attention. Aimed at both scholars and students, the Oxford Handbook of Attention provides a concise and state-of-the-art review of the current literature in this field.

This book constitutes the thoroughly refereed proceedings of the 16th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2015, held Catania, Italy, in October 2015. The 76 revised full papers were carefully selected from 129 submissions. Acivs 2015 is a conference focusing on techniques for building adaptive, intelligent, safe and secure imaging systems. The focus of the conference is on following topic: low-level Image processing, video processing and camera networks, motion and tracking, security, forensics and biometrics, depth and 3D, image quality improvement and assessment, classification and recognition, multidimensional signal processing, multimedia compression, retrieval, and navigation.

The 4th International Conference on Electronic, Communications and Networks (CECNet2014) inherits the fruitfulness of the past three conferences and lays a foundation for the forthcoming next year in Shanghai. CECNet2014 was hosted by Hubei University of Science and Technology, China, with the main objective of providing a comprehensive global forum.

The two volume set LNCS 9474 and LNCS 9475 constitutes the refereed proceedings of the 11th International Symposium on Visual Computing, ISVC 2015, held in Las Vegas, NV, USA in December 2015. The 115 revised full papers and 35 poster papers presented in this book were carefully reviewed and selected from 260 submissions. The papers are organized in topical sections: Part I (LNCS 9474) comprises computational bioimaging; computer graphics; motion and tracking; segmentation; recognition; visualization; mapping; modeling and surface reconstruction; advancing autonomy for aerial robotics; medical imaging; virtual reality; observing humans; spectral imaging and processing; intelligent transportation systems; visual perception and robotic systems. Part II (LNCS 9475): applications; 3D computer vision; computer graphics; segmentation; biometrics; pattern recognition; recognition; and virtual reality.

The two volumes CCIS 546 and 547 constitute the refereed proceedings of the CCF Chinese Conference on Computer Vision, CCCV 2015, held in Xi'an, China, in September 2015. The total of 89 revised full papers presented in both volumes were carefully reviewed and selected from 176 submissions. The papers address issues such as computer vision, machine learning, pattern recognition, target recognition, object detection, target tracking, image segmentation, image restoration, face recognition, image classification.

The International Conference on Image Processing (ICIP), sponsored by the IEEE Signal Processing Society, is the premier forum for the presentation of technological advances and research results in the fields of theoretical, experimental, and applied image and video processing ICIP 2018, the 25th in the series that has been held annually since 1994, brings together leading engineers and scientists in image and video processing from around the world

This book focuses on the fundamentals and recent advances in RGB-D imaging as well as covering a range of RGB-D applications. The topics covered include: data acquisition, data quality assessment, filling holes, 3D reconstruction, SLAM, multiple depth camera systems, segmentation, object detection, saliency detection, pose estimation, geometric modelling, fall detection, autonomous driving, motor rehabilitation therapy, people counting and cognitive service robots. The availability of cheap RGB-D sensors has led to an explosion over the last five years in the capture and application of colour plus depth data. The addition of depth data to regular RGB images vastly increases the range of applications, and has resulted in a demand for robust and real-time processing of RGB-D data. There remain many technical challenges, and RGB-D image processing is an ongoing research area. This book covers the full state of the art, and consists of a series of chapters by internationally renowned experts in the field. Each chapter is written so as to provide a detailed overview of that topic. RGB-D Image Analysis and Processing will enable both students and professional developers alike to quickly get up to speed with contemporary techniques, and apply RGB-D imaging in their own projects.

Art, technology, and information science combine into computer graphics and multimedia. This book explores the parameters of the application, problems and solutions related to digital disciplines. Contributing authors include computer scientists, multimedia researchers, computer artists, graphic designers, and digital media specialists.

The two volume set LNCS 9256 and 9257 constitutes the refereed proceedings of the 16th International Conference on Computer Analysis of Images and Patterns, CAIP 2015, held in Valletta, Malta, in September 2015. The 138 papers presented were carefully reviewed and selected from numerous submissions. CAIP 2015 is the sixteenth in the CAIP series of biennial international conferences devoted to all aspects of computer vision, image analysis and processing, pattern recognition, and related fields. This book provides an introduction to recent advances in theory, algorithms and application of Boolean map distance for image processing. Applications include modeling what humans find salient or prominent in an image, and then using this for guiding smart image cropping, selective image filtering, image segmentation, image matting, etc. In this book, the authors present methods for both traditional and emerging saliency computation tasks, ranging from classical low-level tasks like pixel-level

saliency detection to object-level tasks such as subitizing and salient object detection. For low-level tasks, the authors focus on pixel-level image processing approaches based on efficient distance transform. For object-level tasks, the authors propose data-driven methods using deep convolutional neural networks. The book includes both empirical and theoretical studies, together with implementation details of the proposed methods. Below are the key features for different types of readers. For computer vision and image processing practitioners: Efficient algorithms based on image distance transforms for two pixel-level saliency tasks; Promising deep learning techniques for two novel object-level saliency tasks; Deep neural network model pre-training with synthetic data; Thorough deep model analysis including useful visualization techniques and generalization tests; Fully reproducible with code, models and datasets available. For researchers interested in the intersection between digital topological theories and computer vision problems: Summary of theoretic findings and analysis of Boolean map distance; Theoretic algorithmic analysis; Applications in salient object detection and eye fixation prediction. Students majoring in image processing, machine learning and computer vision: This book provides up-to-date supplementary reading material for course topics like connectivity based image processing, deep learning for image processing; Some easy-to-implement algorithms for course projects with data provided (as links in the book); Hands-on programming exercises in digital topology and deep learning.

Image and Video Retrieval Third International Conference, CIVR 2004, Dublin, Ireland, July 21-23, 2004, Proceedings Springer
This two-volume set (CCIS 152 and CCIS 153) constitutes the refereed proceedings of the International Conference on Computer Science and Information Engineering, CSIE 2011, held in Zhengzhou, China, in May 2011. The 159 revised full papers presented in both volumes were carefully reviewed and selected from a large number of submissions. The papers present original research results that are broadly relevant to the theory and applications of Computer Science and Information Engineering and address a wide variety of topics such as algorithms, automation, artificial intelligence, bioinformatics, computer networks, computer security, computer vision, modeling and simulation, databases, data mining, e-learning, e-commerce, e-business, image processing, knowledge management, multimedia, mobile computing, natural computing, open and innovative education, pattern recognition, parallel computing, robotics, wireless networks, and Web applications.

Today's mobile robot perception is insufficient for acting goal-directedly in unconstrained, dynamic everyday environments like a home, a factory, or a city. Subject to restrictions in bandwidth, computer power, and computation time, a robot has to react to a wealth of dynamically changing stimuli in such environments, requiring rapid, selective attention to decisive, action-relevant information of high current utility. Robust and general engineering methods for effectively and efficiently coupling perception, action and reasoning are unavailable. Interesting performance, if any, is currently only achieved by sophisticated robot programming exploiting domain features and specialties, which leaves ordinary users no chance of changing how the robot acts. The purpose of this volume - outcome of a GI-Dagstuhl Seminar held in Dagstuhl Castle in June 2006 - is to give a first overview on the concept of affordances for the design and implementation of autonomous mobile robots acting goal-directedly in a dynamic environment. The aim is to develop affordance-based control as a method for robotics. The potential of this new methodology will

be shown by going beyond navigation-like tasks towards goal-directed autonomous manipulation in the project demonstrators. Multimedia represents information in novel and varied formats. One of the most prevalent examples of continuous media is video. Extracting underlying data from these videos can be an arduous task. From video indexing, surveillance, and mining, complex computational applications are required to process this data. Intelligent Analysis of Multimedia Information is a pivotal reference source for the latest scholarly research on the implementation of innovative techniques to a broad spectrum of multimedia applications by presenting emerging methods in continuous media processing and manipulation. This book offers a fresh perspective for students and researchers of information technology, media professionals, and programmers.

Data analytics is proving to be an ally for epidemiologists as they join forces with data scientists to address the scale of crises. Analytics examined from many sources can derive insights and be used to study and fight global outbreaks. Pandemic analytics is a modern way to combat a problem as old as humanity itself: the proliferation of disease. Machine Learning and Data Analytics for Predicting, Managing, and Monitoring Disease explores different types of data and discusses how to prepare data for analysis, perform simple statistical analyses, create meaningful data visualizations, predict future trends from data, and more by applying cutting edge technology such as machine learning and data analytics in the wake of the COVID-19 pandemic. Covering a range of topics such as mental health analytics during COVID-19, data analysis and machine learning using Python, and statistical model development and deployment, it is ideal for researchers, academicians, data scientists, technologists, data analysts, diagnosticians, healthcare professionals, computer scientists, and students.

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.

The five-volume set LNCS 9003--9007 constitutes the thoroughly refereed post-conference proceedings of the 12th Asian Conference on Computer Vision, ACCV 2014, held in Singapore, Singapore, in November 2014. The total of 227 contributions presented in these volumes was carefully reviewed and selected from 814 submissions. The papers are organized in topical sections on recognition; 3D vision; low-level vision and features; segmentation; face and gesture, tracking; stereo, physics, video and events; and poster sessions 1-3.

Genetic and Evolutionary Computing This volume of Advances in Intelligent Systems and Computing contains accepted papers presented at ICGEC 2013, the 7th International Conference on Genetic and Evolutionary Computing. The conference this year was technically co-sponsored by The Waseda University in Japan, Kaohsiung University of Applied Science in Taiwan, and VSB-

Technical University of Ostrava. ICGEC 2013 was held in Prague, Czech Republic. Prague is one of the most beautiful cities in the world whose magical atmosphere has been shaped over ten centuries. Places of the greatest tourist interest are on the Royal Route running from the Powder Tower through Celetna Street to Old Town Square, then across Charles Bridge through the Lesser Town up to the Hradcany Castle. One should not miss the Jewish Town, and the National Gallery with its fine collection of Czech Gothic art, collection of old European art, and a beautiful collection of French art. The conference was intended as an international forum for the researchers and professionals in all areas of genetic and evolutionary computing. The main topics of ICGEC 2013 included Intelligent Computing, Evolutionary Computing, Genetic Computing, and Grid Computing.

This textbook collects a series of research papers in the area of Image Processing and Communications which not only introduce a summary of current technology but also give an outlook of potential future problems in this area. Image Processing and Communications have undergone an impressive development. Recent evolutions in this area have led to a pervasive spread in many areas of human life and have become such a critical component in contemporary science and technology. The book is divided into two parts. The first part contains recent research results in image processing, whilst the second part contains recent research results in communications.

This volume constitutes the refereed proceedings of the 5th Iberian Conference on Pattern Recognition and Image Analysis, IbPRIA 2011, held in Las Palmas de Gran Canaria, Spain, in June 2011. The 34 revised full papers and 58 revised poster papers presented were carefully reviewed and selected from 158 submissions. The papers are organized in topical sections on computer vision; image processing and analysis; medical applications; and pattern recognition.

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