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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 5337
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Soggetti	Optical data processing Application software Computer programming Pattern recognition Computer graphics Artificial intelligence Image Processing and Computer Vision Computer Applications Programming Techniques Pattern Recognition Computer Graphics Artificial Intelligence
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Image Processing -- Architecture of an Integrated Software-Hardware System for Accelerated Image Processing -- A Fast Logical-Morphological Method to Segment Scratch - Type Objects -- Spatio-Temporal Track-Before-Detect Algorithm for Interlaced and Progressive Scan Imaging Sensors -- Road Lane Detection with Elimination of High-Curvature Edges -- Image Quality Assessment -- A Statistical Reduced-Reference Approach to Digital Image Quality Assessment -- Colour

Image Quality Assessment Using Structural Similarity Index and Singular Value Decomposition -- Top-Down Approach to Image Similarity Measures -- The Influence of Picture Quality Scale Measure on Choosing the Wavelet Transform during Image Compression -- Image Quality Assessment Using Phase Spectrum Correlation -- Geometrical Models of Object and Scenes -- A New Image Fusion Method for Estimating 3D Surface Depth -- Collecting 3D Content: Examples from Art and Medicine -- 3D Object Reconstruction from Parallel Cross-Sections -- Implementation of Progressive Meshes for Hierarchical Representation of Cultural Artifacts -- Motion Analysis, Visual Navigation and Active Vision -- Multi-Object Tracking Based on Particle Filter and Data Association in Color Image Sequences -- Residual of Resonant SVD as Salient Feature -- Building Pedestrian Contour Hierarchies for Improving Detection in Traffic Scenes -- Potential Field Based Camera Collisions Detection within Translating 3D Objects -- Image and Video Coding -- A Simple Quantitative Model of AVC/H.264 Video Coders -- Approximation of Signals by Predict Wavelet Transform -- Homogeneous Video Transcoding of H.264/AVC Intra Coded Frames -- Lossless and Near-Lossless Image Compression Scheme Utilizing Blending-Prediction-Based Approach -- Virtual Reality and Multimedia Applications -- Marker Less Vision-Based Tracking of Partially Known 3D Scenes for Outdoor Augmented Reality Applications -- Geometric and Optical Flow Based Method for Facial Expression Recognition in Color Image Sequences -- Local Rank Patterns – Novel Features for Rapid Object Detection -- Detection of Dogs in Video Using Statistical Classifiers -- Automatic Video Editing for Multimodal Meetings -- Foreground Segmentation via Segments Tracking -- Multi-layer Background Change Detection Based on Spatiotemporal Texture Projections -- Biomedical Applications -- The Development and Validation of a Method for 4D Motion Reconstruction of a Left Ventricle -- Estimation of Eye Blinking Using Biopotentials Measurements for Computer Animation Applications -- Approximation of Subtle Pathology Signs in Multiscale Domain for Computer-Aided Ischemic Stroke Diagnosis -- Iris Identification Using Geometrical Wavelets -- Numerical Simulation of Endoscopic Images in Photodynamic Diagnosis -- Practical Applications of Pattern Recognition -- Mixtures of Classifiers for Recognizing Standing and Running Pedestrians -- Automatic Classification of Wood Defects Using Support Vector Machines -- Automatic Surveillance and Analysis of Snow and Ice Coverage on Electrical Insulators of Power Transmission Lines -- GP-GPU Implementation of the “Local Rank Differences” Image Feature -- Image Recognition Technique for Unmanned Aerial Vehicles -- The Performance of Two Deformable Shape Models in the Context of the Face Recognition -- A Hierarchical Model for the Recognition of Deformable Objects -- Computer Animation -- Exploiting Quaternion PCA in Virtual Character Motion Analysis -- A Scene Graph-Oriented Particle System for Real-Time 3D Graphics -- Debugging, Object and State Management with OpenGL 1.x and 2.x -- Estimation of State–Space Spatial Component for Cuboid Track–Before–Detect Motion Capture Systems -- Visualization and Graphical Data Presentation -- Automatic Extraction of Graph-Like Structures from Binary Images -- ‘SNN3DViewer’ - 3D Visualization Tool for Spiking Neural Network Analysis -- Using Graph Transformations in Distributed Adaptive Design System -- The Lifting Scheme for Multiresolution Wavelet-Based Transformation of Surface Meshes with Additional Attributes.

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## Sommario/riassunto

This book constitutes the thoroughly refereed post-conference proceedings of the International Conference on Computer Vision and Graphics, ICCVG 2008, held in Warsaw, Poland, in November 2008. The

48 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on image processing, image quality assessment, geometrical models of objects and scenes, motion analysis, visual navigation and active vision, image and video coding, virtual reality and multimedia applications, biomedical applications, practical applications of pattern recognition, computer animation, visualization and graphical data presentation.

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