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Soggetti	Pattern recognition Optical data processing Artificial intelligence Computer organization Computer security Pattern Recognition Image Processing and Computer Vision Artificial Intelligence Computer Systems Organization and Communication Networks Systems and Data Security
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Livello bibliografico	Monografia
Nota di contenuto	ST: Computational Bioimaging -- Automatic Registration of Serial Cerebral Angiography: A Comparative Review -- Skull Stripping using Confidence Segmentation Convolution Neural Network -- Skin Cancer Segmentation Using a Unified Markov Random Field -- Heart Modeling by Convexity Preserving Segmentation and Convex Shape Decomposition -- Computer Graphics I -- PSO-based Newton-like Method and Iteration Processes in the Generation of Artistic Patterns -- An Evaluation of Smoothing and Remeshing Techniques to Represent

the Evolution of Real-World Phenomena -- Biomimetic Perception Learning for Human Sensorimotor Control -- Porous Structure Design in Tissue Engineering Using Anisotropic Radial Basis Functions -- Visual Surveillance -- Accurate and Efficient Non-Parametric Background Detection for Video Surveillance -- A Low-Power Neuromorphic System for Real-Time Visual Activity Recognition -- Video-based human action recognition using kernel relevance analysis -- Robust Incremental Hidden Conditional Random Fields for Human Action Recognition -- Pattern Recognition -- Rotation Symmetry Object Classification using Structure Constrained Convolutional Neural Network -- A Hough Space Feature for Vehicle Detection -- Gender Classification Based on Facial Shape and Texture Features -- Authentication-based on Biomechanics of Finger Movements captured using Optical Motion-Capture -- Specific Document Sign Location Detection Based on Point Matching and Clustering -- Virtual Reality I -- Training in Virtual Environments for Hybrid Power Plants -- Visualizing Viewpoint Movement on Driving by Space Information Rendering -- Virtual Reality System for Children Lower Limb Strengthening with the use of Electromyographic Sensors -- A Comparative Study of Virtual UI for Risk Assessment and Evaluation -- Sensory Fusion and Intent Recognition for Accurate Gesture Recognition in Virtual Environments -- Deep Learning I -- Accuracy of a Driver-Assistance System in a Collision Scenario -- Classify broiler viscera using an iterative approach on noisy labeled training data -- Instance-level Object Recognition using Deep Temporal Coherence -- DUPL-VR: Deep Unsupervised Progressive Learning for Vehicle Re-Identification -- Motion and Tracking -- Particle Filter Based Tracking and Mapping -- Multi-Branch Siamese Networks with Online Selection for Object Tracking -- Deep Convolutional Correlation Filters for Visual Tracking by Detection -- The bird gets caught by the WORM: tracking multiple deformable objects in noisy environments using Weight ORdered Logic Maps -- A Mumford Shah Style Unified Framework for Layering: Pitfalls and Solutions -- Visualization -- Visualization of Parameter Sensitivity of 2D Time-Dependent Flow -- Non-stationary generalized Wishart process for enhancing resolution over diffusion tensor fields -- Reduced-reference image quality assessment based on improved local binary pattern -- Web system for visualization of weather data of the hydrometeorological network of Tungurahua, Ecuador -- Analysis and Visualization of Sports Performance Anxiety in Tennis Matches -- Object Detection and Recognition -- Detailed sentence generation architecture for image semantics description -- Pupil Localization Using Geodesic Distance -- Parallel Curves Detection Using Multi-Agent System -- Can Deep Learning Learn the Principle of Closed Contour Detection -- Deep Learning II -- DensSiam: End-to-End Densely-Siamese Network with Self-Attention Model for Object Tracking -- Convolutional Adaptive Particle Filter with Multiple Models for Visual Tracking -- Scale-aware RPN for Vehicle Detection -- Object Detection to Assist Visually Impaired People: A Deep Neural Network Adventure -- Large Scale Application Response Time Measurement using Image Recognition and Deep Learning -- Applications I -- Vision-Depth Landmarks and Inertial Fusion for Navigation in Degraded Visual Environments -- Efficient Nearest Neighbors Search for Large-Scale Landmark Recognition -- Patient's Body Motion Study using Multimodal RGBDT Videos -- Marker based Thermal-Inertial Localization for Aerial Robots in Obscurant Filled Environments -- Shape-based Smoothing of Binary Digital Objects Using Signed Distance Transform -- Segmentation -- Patch-based potentials for interactive contour extraction -- A New Algorithm for Local Blur-Scale

Computation and Edge Detection -- Semantic Segmentation by Integrating Classifiers for Different Difficulty Levels -- Applications II -- Fast Image Dehazing Methods for Real-Time Video Processing -- GPU Accelerated Non-Parametric Background Subtraction -- Budget-constrained Online Video Summarisation of Egocentric Video Using Control Charts -- p-Laplacian regularization of signals on directed graphs -- A Dense-Depth Representation for VLAD descriptors in Content-Based Image Retrieval -- Virtual Reality II -- Augmented Reality System for Training and Assistance in the Management of Equipment and Industrial Instruments -- Alternative Treatment for Spider Phobia through Virtual Reality Environments -- The skyline as a marker for augmented reality in urban context -- Oil Processes VR Training -- ST: Intelligent Transportation Systems -- Multiple Object Tracking in Urban Traffic Scenes with a Multiclass Object Detector -- Autonomous Bus Boarding Robotic Wheelchair using Bidirectional Sensing Systems -- Road User Abnormal Trajectory Detection using a Deep Autoencoder -- Traffic Flow Classiffication Using Traffic Cameras.

Sommario/riassunto

This book constitutes the refereed proceedings of the 13th International Symposium on Visual Computing, ISVC 2018, held in Las Vegas, NV, USA in November 2018. The total of 66 papers presented in this volume was carefully reviewed and selected from 91 submissions. The papers are organized in topical sections named: ST: computational bioimaging; computer graphics; visual surveillance; pattern recognition; vitrual reality; deep learning; motion and tracking; visualization; object detection and recognition; applications; segmentation; and ST: intelligent transportation systems. .