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| Nota di bibliografia    | Includes bibliographical references at the end of each chapters and index.  |
| Nota di contenuto       | Preface; Contents; Part I Image Processing ; Classifier Selection Uses Decision Profiles in Binary Classification Task; 1 Introduction; 2 Ensemble of Classifiers; 3 Proposal Selection Methods of a Posteriori Probability Estimations; 3.1 Algorithm with the Use of Average; 3.2 Algorithm with the Use of Average and Standard Deviation; 4 Experimental Studies; 5 Conclusion; References; 2DHMM-Based Face Recognition Method; 1 Introduction; 2 Propose Method; 2.1 Pre-processing Procedure; 2.2 Features Extraction; 2.3 2D HMM; 3 Experiment; 4 Conclusion; References<br>Corner Detection Based on Directional Gradients---Comparative Study<br>1 Introduction; 2 Classic Corner Detectors; 3 Modifications of |

Classic Scheme; 4 Tests; 4.1 Methodology of Testing; 4.2 Results; 5 Conclusions; References; Sensor Fusion Enhancement for Mobile Positioning Systems; 1 Introduction; 2 Related Works; 3 Background Theory; 4 Measurement Results; 5 Conclusions; References; Thermal Face Recognition; 1 Introduction; 2 Image Acquisition; 3 Image Preprocessing; 4 Texture Feature; 5 Conclusions; References Feature Reduction Using Similarity Measure in Object Detector Learning with Haar-Like Features1 Introduction; 2 The Object Detector Training; 2.1 Features; 2.2 The AdaBoost Algorithm; 2.3 The Classifier Cascade Learning; 3 Feature Reduction; 3.1 Related Works; 3.2 Methods Based on a Subset of the Best Features from First Weak Classifier Building Step in Cascade Layer; 3.3 Methods Based on Features Similarity Measures; 4 Experiments and Results; 5 Conclusions; References; Assessment of the Brain Coverage Ratio in the Postoperative Craniosynostosis Based on 3D CT Scans; 1 Introduction

2 The Proposed Approach2.1 Preprocessing; 2.2 Brain Segmentation; 2.3 Determination of Brain Coverage Ratio (BCR); 3 Results; 4 Conclusions; References; Combined Imaging System for Taking Facial Portraits in Visible and Thermal Spectra; 1 Introduction; 1.1 Existing Databases; 2 Capture System; 3 Data Acquisition; 3.1 Operating Procedure; 3.2 Data Structure; 4 Summary; References; The PUT Surveillance Database; 1 Introduction; 2 Review of Existing Solutions; 3 Acquisition Procedure; 4 Additional Data; 5 Potential Applications of the Database; 6 Conclusions and Future Work

7 Obtaining the DatabaseReferences; Applying Image Features and AdaBoost Classification for Vehicle Detection in the 'SM4Public' System; 1 Introduction; 2 The Description of the Applied Approaches; 3 Experimental Conditions and Results; 4 Summary and Conclusions; References; Automatic Analysis of Vehicle Trajectory Applied to Visual Surveillance; 1 Introduction; 2 Vision-Based ITS Solutions; 3 Trajectory Analysis and Its Potential Use; 4 The Proposed Algorithm; 5 Evaluation and Application in the 'SM4Public' Project; 6 Conclusions; References Algorithmically Optimized AVC Video Encoder with Parallel Processing of Data

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#### Sommario/riassunto

This book contains papers accepted for IP&C 2015, the International Conference on Image Processing and Communications, held at UTP University of Science and Technology, Bydgoszcz, Poland, September 9-11, 2015. This conference was the eighth edition in the IP&C series of annual conferences. This book and the conference have the aim to bring together researchers and scientists in the broad fields of image processing and communications, addressing recent advances in theory, methodology and applications. The book will be of interest to a large group of researchers, engineers and practitioners in image processing and communications.

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