Record Nr. UNINA9910822436603321 **Titolo** Advances in face image analysis: theory and application / / edited by Fadi Dornaika; contributors Ammar Assoum [and fifteen others] Pubbl/distr/stampa Sharjah, United Arab Emirates:,: Bentham Science Publishers,, 2016 ©2016 **ISBN** 1-68108-110-5 Descrizione fisica 1 online resource (264 p.) Disciplina 006.37 Soggetti Human face recognition (Computer science) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. CONTENTS: FOREWORD: PREFACE: LIST OF CONTRIBUTORS: Facial Nota di contenuto Expression Classification Based on Convolutional Neural Networks; INTRODUCTION; Convolutional Neural Networks; Facial Expression Analysis: GRADIENT-BASED LEARNING FOR CNNS: FEATURE GENERALIZATION; EXPERIMENTS; Datasets; CK-Regianini Dataset; CK-Zheng Dataset; CMU-Pittsburgh dataset; Experiments on CNN-based Facial Expression Classification; Design; Results and Analysis; Experiments on Feature Generalization; Design; Results and Analysis; DISCUSSION; CONFLICT OF INTEREST; ACKNOWLEDGEMENTS; REFERENCES Sparsity Preserving Projection Based Constrained Graph Embedding and Its Application to Face Recognition INTRODUCTION; RELATED WORK; Locality Preserving Projection; Neighborhood Preserving Embedding; Sparsity Preserving Projection; Constrained Graph Embedding; SPP BASED CONSTRAINED GRAPH EMBEDDING; SPP-CGE; Out-of-Sample Extension: EXPERIMENTAL RESULTS: CONCLUSION: NOTES: CONFLICT OF INTEREST: ACKNOWLEDGEMENTS: REFERENCES: Face Recognition Using Exponential Local Discriminant Embedding; INTRODUCTION; Contribution and Related Work: REVIEW OF LOCAL DISCRIMINANT EMBEDDING (LDE) Intrinsic Graph and Penalty GraphOptimal Mapping: The Small Sample

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THEORETICAL ANALYSIS OF ELDE; Solving the SSS Problem; Distance Diffusion Mapping: PERFORMANCE EVALUATION: Face Databases: Recognition Accuracy: Comparison between Regularized LDE and ELDE: CONCLUSION; NOTES; CONFLICT OF INTEREST; ACKNOWLEDGMENTS; REFERENCES; Adaptive Locality Preserving Projections for Face Recognition; INTRODUCTION; LOCALITY PRESERVING PROJECTIONS; ENHANCED AND PARAMETERLESS LPP; PERFORMANCE EVALUATION; Face Databases; Experimental Results Performance Comparison for OLPP and SLPPCONCLUSION; NOTES; CONFLICT OF INTEREST; ACKNOWLEDGMENTS; REFERENCES; Face Recognition Using 3D Face Rectification; INTRODUCTION; PROPOSED METHOD; FACE DATABASE; PREPROCESSING; FACIAL FEATURE DETECTION; POSE ESTIMATION; IRAD Contours; Ellipse Fitting And Roll Correction; Yaw Correction; Pitch Correction; Accuracy Of The Pose Estimation Method: ROTATION AND POST PROCESSING: EXPERIMENTS: CONCLUSION; NOTES; CONFLICT OF INTEREST; ACKNOWLEDGMENTS; REFERENCES; 3D Face Recognition; INTRODUCTION; 3D FACE ACQUISITION: 3D FACE REPRESENTATION: PREPROCESSING 3D FACE ALIGNMENTFACE RECOGNITION; CONCLUDING REMARKS; CONFLICT OF INTEREST; ACKNOWLEDGEMENTS; REFERENCES; Model-Less 3D Face Pose Estimation; INTRODUCTION; STATE OF THE ART; THE MACHINE LEARNING METHODOLOGY; Locality Preserving Projections; LPP Algorithm; Supervised Locality Preserving Projections; LABEL-SENSITIVE LOCALITY PRESERVING PROJECTION: Presetting:: Algorithm:: PROPOSED APPROACH: SPARSE GRAPH BASED LSLPP: EXPERIMENTAL RESULTS; CONCLUSION; NOTES; CONFLICT OF INTEREST; ACKNOWLEDGEMENTS; REFERENCES; Efficient Deformable 3D Face Model Fitting to Monocular Images: INTRODUCTION LIGHTWEIGHT FACIAL FEATURE DETECTION