

1. Record Nr.	UNISA996466360203316
Titolo	Advances in Biometric Person Authentication [[electronic resource] ] : 5th Chinese Conference on Biometric Recognition, SINBIOMETRICS 2004, Guangzhou, China, December 13-14, 2004, Proceedings // edited by Stan Z. Li, Jianhuang Lai, Tieniu Tan, Guocan Feng, Yunhong Wang
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2005
ISBN	3-540-30548-3
Edizione	[1st ed. 2005.]
Descrizione fisica	1 online resource (XVIII, 700 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3338
Disciplina	006.4
Soggetti	<p>Pattern recognition</p> <p>Application software</p> <p>Multimedia information systems</p> <p>Special purpose computers</p> <p>Management information systems</p> <p>Computer science</p> <p>Pattern Recognition</p> <p>Computer Appl. in Social and Behavioral Sciences</p> <p>Computer Appl. in Administrative Data Processing</p> <p>Multimedia Information Systems</p> <p>Special Purpose and Application-Based Systems</p> <p>Management of Computing and Information Systems</p> <p>Seguretat informàtica</p> <p>Reconeixement de formes (Informàtica)</p> <p>Biometria</p> <p>Congressos</p> <p>Llibres electrònics</p>
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Biometrics -- Biometrics: When Identity Matters -- Face Recognition: Technical Challenges and Research Directions -- Fingerprints:

Recognition, Performance Evaluation and Synthetic Generation --  
Recognising Persons by Their Iris Patterns -- Multiple Classifier Fusion  
for Biometric Authentication -- Performance Evaluation in 1 : 1  
Biometric Engines -- Best Performing Biometric Engines -- Discussions  
on Some Problems in Face Recognition -- Improving Fingerprint  
Recognition Performance Based on Feature Fusion and Adaptive  
Registration Pattern -- Iris Recognition Based on Non-local  
Comparisons -- Palmprint Authentication Technologies, Systems and  
Applications -- Face Recognition -- Novel Face Detection Method  
Based on Gabor Features -- Optimal Shape Space and Searching in ASM  
Based Face Alignment -- Gabor Wavelet-Based Eyes and Mouth  
Detection Algorithm -- An Entropy-Based Diversity Measure for  
Classifier Combining and Its Application to Face Classifier Ensemble  
Thinning -- Estimating the Visual Direction with Two-Circle Algorithm  
-- Multiple Face Contour Detection Using Adaptive Flows -- Pose  
Normalization Using Generic 3D Face Model as a Priori for Pose-  
Insensitive Face Recognition -- Gabor-Based Kernel Fisher Discriminant  
Analysis for Pose Discrimination -- Robust Pose Estimation of Face  
Using Genetic Algorithm -- Facial Pose Estimation Based on the  
Mongolian Race's Feature Characteristic from a Monocular Image --  
Boosting Local Binary Pattern (LBP)-Based Face Recognition -- Gabor  
Features Based Method Using HDR (G-HDR) for Multiview Face  
Recognition -- Face Recognition Under Varying Lighting Based on  
Derivates of Log Image -- A Fast Method of Lighting Estimate Using  
Multi-linear Algebra -- Face Recognition Using More than One Still  
Image: What Is More? -- Video-Based Face Recognition Using a Metric  
of Average Euclidean Distance -- 3D Face Recognition Based on G-H  
Shape Variation -- 3D Face Recognition Based on Geometrical  
Measurement -- 3D Face Recognition Using Eigen-Spectrum on the  
Flattened Facial Surface -- Building a 3D Morphable Face Model by  
Using Thin Plate Splines for Face Reconstruction -- 3D Surface  
Reconstruction Based on One Non-symmetric Face Image -- Recent  
Advances in Subspace Analysis for Face Recognition -- Component-  
Based Cascade Linear Discriminant Analysis for Face Recognition --  
Unified Locally Linear Embedding and Linear Discriminant Analysis  
Algorithm (ULLELDA) for Face Recognition -- On Dimensionality  
Reduction for Client Specific Discriminant Analysis with Application to  
Face Verification -- The Solution Space for Fisher Discriminant Analysis  
and the Uniqueness Under Constraints -- A Novel One-Parameter  
Regularized Linear Discriminant Analysis for Solving Small Sample Size  
Problem in Face Recognition -- Fast Calculation for Fisher Criteria in  
Small Sample Size Problem -- Vision-Based Face Understanding  
Technologies and Their Applications -- International Standardization  
on Face Recognition Technology -- System Design and Assessment  
Methodology for Face Recognition Algorithms -- Baseline Evaluations  
on the CAS-PEAL-R1 Face Database -- An Efficient Compression and  
Reconstruction Method of Face Image for Low Rate Net -- How Can We  
Reconstruct Facial Image from Partially Occluded or Low-Resolution  
One? -- A Matrix-Oriented Method for Appearance-Based Data  
Compression -- An Idea from Group Representation Theory --  
Fingerprint Recognition -- An Adaptive Fingerprint Post-processing  
Algorithm Based on Mathematical Morphology -- Fingerprint Image  
Segmentation by Energy of Gaussian-Hermite Moments -- Robust  
Ridge Following in Fingerprints -- A New Approach for Fingerprint  
Minutiae Extraction -- A Top-Down Fingerprint Image Enhancement  
Method Based on Fourier Analysis -- Fingerprint Templates  
Combination -- Skeletonization of Fingerprint Based-on Modulus  
Minima of Wavelet Transform -- Transformation-Variants Estimation

Using Similarity Relative Histogram Grouping Model -- A Study of Minutiae Matching Algorithm Based on Orientation Validation -- Cascading a Couple of Registration Methods for a High Accurate Fingerprint Verification System -- A Hierarchical Fingerprint Matching Method Based on Rotation Invariant Features -- Phase-Correlation Based Registration of Swipe Fingerprints -- An Improved Method for Singularity Detection of Fingerprint Images -- Fingerprint Classifier Using Embedded Hidden Markov Models -- A Robust Pseudoridges Extraction Algorithm for Fingerprints -- Iris Recognition -- Iris Image Capture System Design for Personal Identification -- An Iris Segmentation Procedure for Iris Recognition -- Zernike Moment Invariants Based Iris Recognition -- Two-Dimensional Projection and Crossing for Iris Optimal Localization -- Speaker Recognition -- Improvement of Speaker Identification by Combining Prosodic Features with Acoustic Features -- Bimodal Speaker Identification Using Dynamic Bayesian Network -- A Novel Pitch Period Detection Algorithm Based on Hilbert-Huang Transform -- Noisy Speech Pitch Detection Based on Mathematical Morphology and Weighted MACF -- Glottal Information Based Spectral Recuperation in Multi-channel Speaker Recognition -- Speaker Modeling Technique Based on Regression Class for Speaker Identification with Sparse Training -- Other Biometrics -- Some Issues Pertaining to Adaptive Multimodal Biometric Authentication -- Protecting Biometric Data for Personal Identification -- Digital Curvelet Transform for Palmprint Recognition -- On-line Writer Verification Using Force Features of Basic Strokes -- A Novel Force Sensitive Tablet for Handwriting Information Acquisition -- Shape and Structural Feature Based Ear Recognition -- LLE Based Gait Analysis and Recognition -- Personal Identification Using Knuckleprint -- AAM Based Matching of Hand Appearance for User Verification.

---

## Sommario/riassunto

Following the previous four annual conferences, the 5th Chinese Conference on Biometrics Recognition (Sinobiometrics 2004) was held in Guangzhou, China in December 2004. The conference this year was aimed at promoting the international exchange of ideas and providing an opportunity for keeping abreast of the latest developments in biometric algorithms, systems, and applications. The 1st Biometrics Verification Competition (BVC) on face, iris, and fingerprint recognition was also conducted in conjunction with the conference. This book is composed of 74 papers presented at Sinobiometrics 2004, contributed by researchers and industrial practitioners from Korea, Japan, Singapore, Hong Kong, France, UK, US, as well as China. Of these, 60 papers were selected from 140 submissions and 14 were invited. The papers not only presented recent technical advances, but also addressed issues in biometric system design, standardization, and applications. Included among the invited were four feature papers on the ideas and algorithms of the best-performing biometric engines, which were either competition winners at the Face Authentication Test (FAT) 2004 or the Fingerprint Verification Competition (FVC) 2004, or they were the best-performing iris and palmprint recognition algorithms. The papers were complemented by five keynote lectures on biometrics, and face, fingerprint, and iris authentication and multimodal fusion by Arun Ross (West Virginia University) and Anil K. Jain (Michigan State University), Josef Kittler (University of Surrey), John Daugman (University of Cambridge), Raffaele Cappelli (University of Bologna), and Stan Z. Li (Chinese Academy of Sciences).

---