

2014 IEEE International Joint Conference on Biometrics

(IJCB 2014)

**Clearwater, Florida, USA
29 September - 2 October 2014**



**IEEE Catalog Number: CFP14BTA-POD
ISBN: 978-1-4799-3585-7**

IJCB 2014

Program Schedule

| Monday, September 29, 2014 | |
|---|---|
| Monday 08:00 – 09:30 | Registration: Lobby II |
| Monday 09:30 – 12:30 | Tutorial I: Latent Fingerprint and Palmprint Recognition Jianjiang Feng (<i>Tsinghua University</i>) Venue: Island I |
| Monday 09:30 – 12:30 | Tutorial II: Metric Learning for Face Analysis Jiwen Lu (<i>Advanced Digital Sciences Center, Singapore</i>) Venue: Island II |
| Monday 13:00 – 14:30 | Registration: Lobby II |
| Monday 14:00 – 17:00 | Tutorial III: Iris Recognition: From Basics to Research Frontiers Kevin W. Bowyer (<i>University of Notre Dame</i>) Venue: Island II |
| Monday 14:00 – 17:00 | Tutorial IV: System Design and Performance Assessment: A Biometric Menagerie Perspective Norman Poh (<i>University of Surrey</i>) Venue: Island I |
| Tuesday, September 30, 2014 | |
| Tuesday 07:30 - 08:10 | Breakfast: Palm/Bay |
| Tuesday 07:30 - 09:30 | Registration: Lobby II |
| Tuesday 08:20 - 08:40 | Welcome Message from Conference Chairs |
| Tuesday 08:40 - 10:00 | Oral Session I : Fingerprint and Iris Session Chair: Venu Govindaraju (<i>SUNY Buffalo</i>) Venue: Island Ballroom |
|  pg 1 | Fingerprint Matching based on Global Minutia Cylinder Code Yuxuan Luo (<i>Tsinghua University</i>), Jianjiang Feng (<i>Tsinghua University</i>), Jie Zhou (<i>Tsinghua University</i>) |
| pg 9 | Finger Vein Recognition with Superpixel-based Features Fei Liu (<i>Shandong University</i>), Yilong Yin (<i>Shandong University</i>), Gongping Yang (<i>Shandong University</i>), Lumei Dong (<i>Shandong University</i>), Xiaoming Xi (<i>Shandong University</i>) |
| pg 17 | A Robust Algorithm for Colour Iris Segmentation Based on 1-norm Regression Yang Hu (<i>University of Kent</i>), Konstantinos Sirlantzis (<i>University of Kent</i>), Gareth Howells (<i>University of Kent</i>) |
| pg 25 | Enhancing Latent Fingerprints on Banknotes Xuanbin Si (<i>Tsinghua University</i>), Jianjiang Feng (<i>Tsinghua University</i>), Jie Zhou (<i>Tsinghua University</i>) |

Tuesday 10:00 - 10:40



pg 33

Spotlights : Poster Session I

Session Chair: *Brendan Klare (Noblis)*

Venue: Island Ballroom

The Magic Passport

Matteo Ferrara (*University of Bologna*), Annalisa Franco (*University of Bologna*), Davide Maltoni (*University of Bologna*)

pg 40

A Benchmark Study of Large-scale Unconstrained Face Recognition

Shengcai Liao (*CBSR*), Zhen Lei (*CBSR*), Dong Yi (*CBSR*), Stan Li (*CBSR*)

pg 48

Segmenting the Periocular Region using a Hierarchical Graphical Model Fed by Texture / Shape Information and Geometrical Constraints

Hugo Proenca (*University of Beira Interior*), João Neves (*University of Beira Interior*), Gil Santos (*University of Beira Interior*)

pg 55

Ten-Print Fingerprint Self-Captures: Graphics-only User Guidance without Language

Yee-Yin Choong (*NIST*), Mary Theofanos (*NIST*)

pg 63

Still-to-Video Face Recognition Via Weighted Scenario Oriented Discriminant Analysis

Xue Chen (*Institute of Automation*), Chunheng Wang (*Institute of Automation*), Baihua Xiao (*Institute of Automation*), Chi Zhang (*Institute of Automation*)

pg 69

Gaze Estimation as a Framework for Iris Liveness Detection

Ioannis Rigas (*Texas State University*), Oleg Komogortsev (*Texas State University*)

pg 77

Iris Pattern Obfuscation in Digital Images

Shejin Thavalengal (*NUI Galway*), Ruxandra Vranceanu (*DigitalOptics Corporation*), Razvan Condorovici (*DigitalOptics Corporation*), Peter Corcoran (*NUI Galway*)

pg 85

Aiding Face Recognition with Social Context Association Rule based Re-Ranking






Samarth Bharadwaj (*IIT Delhi*), Mayank Vatsa (*IIT Delhi*), Richa Singh (*IIT Delhi*)

pg 93

An Optimal Strategy for Dilation Based Iris Image Enrollment

Estefan Ortiz (*University of Notre Dame*), Kevin Bowyer (*University of Notre Dame*), Patrick Flynn (*University of Notre Dame*)

| Tuesday, September 30, 2014 | |
|-----------------------------|---|
| pg 99 | Non-Negative Sparse Coding based Scalable Access Control using Fingertip ECG Peter Sam Raj (<i>University of Toronto</i>), Sukanya Sonowal (<i>Seoul National University</i>), Dimitris Hatzinakos (<i>University of Toronto</i>) |
| pg 105 | A Coarse-to-Fine Approach to Robust 3D Facial Landmarking via Curvature Analysis and Active Normal Model Jia Sun (<i>Beihang University</i>), Di Huang (<i>Beihang University</i>), Yunhong Wang (<i>Beihang University</i>), Liming Chen (<i>Ecole Centrale de Lyon</i>) |
| pg 112 | LPIDB v1.0 - Latent Palmprint Identification Database Aythami Morales (<i>IDeTIC - University of Las Palmas de Gran Canaria</i>), Miguel A. Medina-Pérez (<i>INAOE</i>), Miguel A. Ferrer (<i>IDeTIC - University of Las Palmas de Gran Canaria</i>), Milton García-Borroto (<i>INAOE</i>), Leopoldo Altamirano Robles (<i>INAOE</i>) |
| pg 118 | Multi-Modal Biometrics for Mobile Authentication Hagai Aronowitz (<i>IBM Research</i>), Min Li (<i>IBM Resesarch</i>), Orith Toledo-Ronen (<i>IBM Research</i>), Sivan Harary (<i>IBM Research</i>), Amir Geva (<i>Technion</i>), Shay Ben-David (<i>IBM Research</i>), Asaf Rendel (<i>IBM Research</i>), Ron Hoory (<i>IBM Research</i>), Nalini Ratha (<i>IBM Research</i>), Sharath Pankanti (<i>IBM Research</i>), David Nahamoo (<i>IBM Research</i>) |
| pg 126 | A Framework for Improving the Performance of Verification Algorithms with a Low False Positive Rate Requirement and Limited Training Data Ognjen Arandjelovic (<i>Deakin University</i>) |
| pg 133 | Discriminating Projections for Estimating Face Age in Wild Images Ryan Tokola (<i>Oak Ridge National Laboratory</i>), Chris Boehnen (<i>Oak Ridge National Laboratory</i>), David Bolme (<i>Oak Ridge National Laboratory</i>), Del Barstow, Karl Ricanek (<i>UNCW</i>) |
| pg 141 | Effects of Severe Image Compression on Iris Segmentation Performance Christian Rathgeb (<i>Hochschule Darmstadt</i>), Andreas Uhl (<i>University of Salzburg</i>), Peter Wild (<i>University of Reading</i>) |
| pg 147 | A low-cost multimodal Biometric Sensor to capture Finger Vein and Fingerprint R Raghavendra (<i>Gjøvik University College, Norway</i>), Kiran Raja (<i>Gjøvik University College, Norway</i>), S Jayachander (<i>Gjøvik University College, Norway</i>), Christoph Busch (<i>Gjøvik University College, Norway</i>) |

| | |
|--|---|
| <p>Tuesday 10:40 – 10:45</p>  | <p>Spotlights I: Industry Track</p> <p>Ocular Biometric System Demonstration Oleg Komogortsev (<i>Texas State University</i>), Corey Holland (<i>Texas State University</i>)</p> <p>Web Services for Biometric Devices (WS-BD): Consistent and Interoperable Machine-to-Machine and Human-to-Machine Communication Kristen K. Greene (<i>NIST</i>), Kayee Kwong (<i>NIST</i>)</p> |
| <p>Tuesday 10:45 – 12:30</p> | <p>Coffee Break and Poster Session I Venue: Grand Ballroom (Bay/Palm)</p>    |
| <p>Tuesday 12:30 – 14:00</p> | <p>Lunch Venue: Rusty's Bistro</p>  |
| <p>Tuesday 14:00 – 15:00</p> <p>Special Session: National ID Programs</p> | <p>Session Chair: Kevin Bowyer (<i>University of Notre Dame, USA</i>) Venue: Island Ballroom</p> <p>Digital ID for Benefit and Service Delivery to Billion Plus People Vijay S Madan <i>Director General and Mission Director (UIDAI) Unique Identification Authority of India, India</i></p> <p>The UAE Population Register and ID Card Program: Achievements and the Challenges Ahead Shukri Ali Al Braiki <i>Director (Population Register Department) Emirates Identity Authority (EIDA), UAE</i></p> <p>Brazilian National Biometric Selection: New and Legacy Challenges Sara Lais Rahal Lenharo <i>Biometrics Group of the RIC Brazilian Civil Identification Program, Brazil</i></p> |
| <p>Tuesday 15:00 - 15:40</p> <p>Panel Session I</p>  | <p>Session Chair: Anil Jain (<i>Michigan State University, USA</i>) Venue: Island Ballroom</p> <p>Promoting High Quality Research in Biometrics: Challenges and Mechanisms</p> <p>Panelist Anil Jain (<i>Michigan State University, USA</i>), Stan Li (<i>CBSR, CASIA, China</i>) Davide Maltoni (<i>University of Bologna, Italy</i>) Rob Rowe (<i>Lumidigm, USA</i>) Tieniu Tan (<i>CRIPAC, NLPR, CASIA, China</i>)</p> |

IJCB 2014

Program Schedule

| Tuesday, September 30, 2014 | |
|-----------------------------|---|
| Thursday 15:40 – 16:00 | Coffee Break Venue: Grand Ballroom (Bay/Palm)  |
| Tuesday 16:00 - 17:20 | Oral Session II : Systems Session Chair: Arun Ross (<i>Michigan State Univeristy</i>) Venue: Island Ballroom |
| pg 154 | Shuffling is not Sufficient: Security Analysis of Cancelable Iris-codes based on a Secret Permutation Julien Bringer (<i>Morpho</i>), Hervé Chabanne (<i>Morpho</i>), Constance Morel (<i>Morpho</i>) |
| pg 162 | Audio-Visual Gender Recognition in Uncontrolled Environment Using Variability Modeling Techniques Laurent El Shafey (<i>Idiap Research Institute</i>), Elie Khoury (<i>Idiap Research Institute</i>), Sébastien Marcel (<i>Idiap Research Institute</i>) |
| pg 170 | Towards Efficient Privacy-Preserving Two-Stage Identification for Fingerprint-based Biometric Cryptosystems Benjamin Tams (<i>University of Göttingen</i>), Christian Rathgeb (<i>Hochschule Darmstadt</i>) |
| pg 178 | GARP-Face: Balancing Privacy Protection and Utility Preservation in Face De-identification Liang Du (<i>Temple University</i>), MENG YI (<i>Temple University</i>), Erik Blasch (<i>Air Force Research Lab</i>), Haibin Ling (<i>Temple University</i>) |
| Tuesday 18:30-20:00 | Welcome Reception Venue: Pool Side Grass  |



Wednesday, October 01, 2014





| | |
|--|--|
| <p>Wednesday 07:30 - 08:10</p> | <p>Breakfast: Palm/Bay</p> |
| <p>Wednesday 08:20 - 10:00</p>  <p>pg 186</p> <p>pg 194</p> <p>pg 202</p> <p>pg 210</p> <p>pg 217</p> | <p>Oral Session III : Face Session Chair: Jiwen Lu (<i>Advance Digital Sciences Center - UIUC</i>) Venue: Island Ballroom</p> <p>Unconstrained Face Recognition: Establishing Baseline Human Performance via Crowdsourcing Lacey Best-Rowden (<i>Michigan State University</i>), Shiwani Bisht (<i>Cornell University</i>), Joshua Klontz (<i>Noblis</i>), Anil Jain (<i>Michigan State University</i>)</p> <p>Aggregate Channel Features for Multi-view Face Detection Bin Yang (<i>CASIA</i>), Junjie Yan (<i>NLPR</i>), Zhen Lei (<i>NLPR</i>), Stan Li (<i>CBSR</i>)</p> <p>Suspect Identification Based on Descriptive Facial Attributes Brendan Klare (<i>Noblis</i>), Scott Klum (<i>Noblis</i>), Joshua Klontz (<i>Noblis</i>), Emma Taborsky (<i>Noblis</i>), Tayfun Akgul (<i>Istanbul Technical University</i>), Anil Jain (<i>Michigan State University</i>)</p> <p>MDLFace: Memorability Augmented Deep Learning for Video Face Recognition Gaurav Goswami (<i>IIIT Delhi</i>), Romil Bhardwaj (<i>IIIT Delhi</i>), Richa Singh (<i>IIIT Delhi</i>), Mayank Vatsa (<i>IIIT Delhi</i>)</p> <p>Randomized Intra-class-Distance Minimizing Binary Codes for Face Recognition Hao Zhang (<i>Colorado State University</i>), J Beveridge (<i>Colorado State University</i>), Bruce Draper (<i>Colorado State University</i>), Quanyi Mo (<i>Colorado State University</i>), Jonathon Phillips (<i>NIST</i>)</p> |
| <p>Wednesday 10:00 – 10:35</p>  <p>pg 225</p> <p>pg 233</p> <p>pg 241</p> | <p>Spotlights : Poster Session II Session Chair: Richa Singh (<i>IIIT Delhi</i>) Venue: Island Ballroom</p> <p>2D Ear Classification Based on Unsupervised Clustering Anika Pflug (<i>CASED</i>), Arun Ross (<i>Michigan State University</i>), Christoph Busch (<i>Hochschule Darmstadt</i>)</p> <p>Presentation Attack Detection on Visible Spectrum Iris Recognition by Exploring Inherent Characteristics of Light Field Camera R Raghavendra (<i>Gjøvik University College</i>), Christoph Busch (<i>Gjøvik University College</i>)</p> <p>Theoretical Vulnerability in Likelihood-Ratio-Based Biometric Verification Tetsushi Ohki (<i>AIST</i>), Akira Otsuka (<i>AIST</i>)</p> |

| Wednesday, October 01, 2014 | |
|-----------------------------|--|
| pg 249 | Finger Vein Verification Based on a Personalized Best Patches Map Lumei Dong (<i>Shandong University</i>), Gongping Yang (<i>Shandong University</i>), Yilong Yin (<i>Shandong University</i>), Fei Liu (<i>Shandong University</i>), Xiaoming Xi (<i>Shandong University</i>) |
| pg 257 | On Latent Fingerprint Minutiae Extraction using Stacked Denoising Sparse AutoEncoders Anush S. (<i>IIT Delhi</i>), Prateekshit Pandey (<i>IIT Delhi</i>), Mayank Vatsa (<i>IIT Delhi</i>), Richa Singh (<i>IIT Delhi</i>) |
| pg 264 | Multi-Finger Knuckle Recognition from Video Sequence: Extracting Accurate Multiple Finger Knuckle Regions Daichi Kusanagi (<i>Tohoku University</i>), Shoichiro Aoyama (<i>Tohoku University</i>), Koichi Ito (<i>Tohoku University</i>), Takafumi Aoki (<i>Tohoku University</i>) |
| pg 272 | Establishing a Test Set and Initial Comparisons for Quantitatively Evaluating Synthetic Age Progression for Adult Aging Eric Patterson (<i>University of North Carolina Wilmington</i>), Devin Simpson (<i>University of North Carolina Wilmington</i>), Amrutha Sethuram (<i>University of North Carolina Wilmington</i>) |
| pg 280 | Towards Anomaly Detection for Increased Security in Multibiometric Systems: Spoofing-resistant 1-Median Fusion Eliminating Outliers Peter Wild (<i>University of Reading</i>), Petru Radu (<i>University of Reading</i>), Lulu Chen (<i>University of Reading</i>), James Ferryman (<i>University of Reading</i>) |
| pg 286 | Privacy-Preserving Population-Enhanced Biometric Key Generation from Free-Text Keystroke Dynamics Jaroslav Sedenka (<i>Masaryk University</i>), Kiran Balagani (<i>New York Institute of Technology</i>), Vir Phoha (<i>Louisiana Tech University</i>), Paolo Gasti (<i>New York Institute of Technology</i>) |
| pg 294 | The Relationship between Handwritten Signature Production and Personality Traits Oscar Miguel-Hurtado (<i>University of Kent</i>), Richard Guest (<i>University of Kent</i>), Sarah V. Stevenage (<i>University of Southampton</i>), Greg J. Neil (<i>University of Southampton</i>) |
| pg 302 | Dictionary based Framework for Face Recognition, Designed Mutually for Single Training Sample (STS) and Degraded Set (DS) Renu Sharma (<i>CDAC, Indian Institute of Technology</i>), Sukhendu Das (<i>Indian Institute of Technology, Madras</i>), Padmaja Joshi (<i>Centre for Development of Advanced Computing</i>) |

| | |
|---|---|
| <p>pg 308</p> | <p>Continuous Authentication with Cognition-centric Text Production and Revision Features Hilbert Locklear (<i>New York Institute of Technology</i>), Sathya Govindarajan (<i>New York Institute of Technology</i>), Zdenka Sitova (<i>New York Institute of Technology</i>), Adam Goodkind (<i>City University of New York</i>), David Guy Brizan (<i>City University of New York</i>), Andrew Rosenberg (<i>City University of New York</i>), Vir Phoha (<i>Louisiana Tech University</i>), Paolo Gasti (<i>New York Institute of Technology</i>), Kiran Balagani (<i>New York Institute of Technology</i>)</p> |
| <p>pg 316</p> | <p>A New Locally Linear KNN Method with an Improved Marginal Fisher Analysis for Image Classification Qingfeng Liu (<i>New Jersey Institute of Technology</i>), Chengjun Liu (<i>New Jersey Institute of Technology</i>)</p> |
| <p>pg 322</p> | <p>LivDet-Iris 2013 - Iris Liveness Detection Competition 2013 David Yambay (<i>Clarkson University</i>), Jay Doyle (<i>Notre Dame University</i>), Kevin Bowyer (<i>Notre Dame University</i>), Adam Czajka (<i>Warsaw University of Technology</i>), Stephanie Schuckers (<i>Clarkson University</i>)</p> |
| <p>pg 330</p> | <p>Semi-Coupled Basis and Distance Metric Learning for Cross-Domain Matching: Application to Low-Resolution Face Recognition Panagiotis Moutafis (<i>University of Houston</i>), Ioannis Kakadiaris (<i>University of Houston</i>)</p> |
| <p>pg 338</p> | <p>Similarity Score Computation for Minutiae-based Fingerprint Recognition Nontokoza Khanyile (<i>CSIR</i>), Antonie de Cock (<i>CSIR</i>), Mmamolately Mathekga (<i>CSIR</i>)</p> |
| <p>pg 346</p> | <p>A Bayesian Model for Predicting Face Recognition Performance Using Image Quality Abhishek Dutta (<i>University of Twente</i>), Raymond Veldhuis (<i>University of Twente</i>), Luuk Spreeuwers (<i>University of Twente</i>)</p> |
| <p>pg 354</p> | <p>An optimal set of code words and correntropy for rotated least squares regression Jie Gui (<i>CRIPAC, NLPR, CASIA</i>), Zhenan Sun (<i>CRIPAC, NLPR, CASIA</i>), Guangqi Hou (<i>CRIPAC, NLPR, CASIA</i>), Tieniu Tan (<i>CRIPAC, NLPR, CASIA</i>)</p> |
| <p>Wednesday 10:35– 10:45</p>  | <p>Spotlights II: Industry Track Venue: Island Ballroom</p> <p>Correction of Non-ideal Lighting Conditions for Driver Facial Recognition in Alcohol Ignition Interlock Devices Edward Rosales (<i>Alcohol Countermeasure Systems, ACS</i>)</p> |

IJCB 2014

Program Schedule




| Wednesday, October 01, 2014 | |
|-----------------------------|---|
| | <p>UxBUILDER: An End-to-End Tool for Creating Image Quality Assessment Algorithms Michael Happold (<i>Neya Systems</i>)</p> <p>Palmprint Recognition on Mobile Phones Chi Zhang (<i>CRIPAC, NLPR, CASIA</i>), Zhenan Sun (<i>CRIPAC, NLPR, CASIA</i>), Tienu Tan (<i>CRIPAC, NLPR, CASIA</i>)</p> <p>Other Spotlights/Announcements</p> |
| Wednesday 10:45 – 12:30 | <p>Coffee Break and Poster Session II Venue: Grand Ballroom (Bay/Palm)   Industry Track DC Posters</p> |
| Wednesday 12:30 – 14:00 | <p>Lunch Venue: Rusty's Bistro </p> |
| Wednesday 14:00 - 15:00 | <p>Session Chair: Patrick Flynn (<i>University of Notre Dame</i>) Venue: Island Ballroom</p> <p>Face Recognition Research: Beyond the Limit of Accuracy Speaker: Hitoshi Imaoka (<i>NEC, Japan</i>)</p> |
| Wednesday 15:00 - 15:40 | <p>Session Chair: Nalini Ratha (<i>IBM T.J. Watson Research Center</i>) Venue: Island Ballroom</p> <p>Large Scale Identification Systems</p> <p>Panelist Nalini Ratha (<i>IBM</i>) Michael Garris (<i>NIST</i>) Stéphane Gentric (<i>Morpho</i>) William G. Mckinsey (<i>FBI</i>) Mark Burge (<i>IARPA</i>) Charles Y. LI (<i>IBM</i>)</p> |
| Wednesday 15:40 - 16:00 | <p>Coffee Break Venue: Grand Ballroom (Bay/Palm) </p> |
| Wednesday 16:00 - 17:20 | <p>Oral Session IV : IJCB 2014 Competitions Session Chair: Elham Tabassi (<i>NIST</i>) Venue: Island Ballroom</p> <p>The Second Eye Movement Verification and Identification Competition Pawel Kasprowski (<i>Silesian University of Technology</i>), Katarzyna Harezlak (<i>Silesian University of Technology</i>)</p> |

**IAPR 2014
Biometrics Lecture**

Panel Session II



pg 360

| | |
|---|---|
| <p>pg 366</p> <p>pg 372</p> <p>pg 378</p> | <p>MobiLive 2014 - Mobile Iris Liveness Detection Competition Ana Sequeira (<i>InescTEC&FEUP</i>), Hélder Oliveira (<i>InescTEC</i>), João C. Monteiro (<i>InescTEC&FEUP</i>), João P. Monteiro (<i>InescTEC</i>), Jaime Cardoso (<i>InescTEC & FEUP</i>)</p> <p>Kinship Verification in the Wild: The First Kinship Verification Competition Jiwen Lu (<i>ADSC</i>), Junlin Hu (<i>NTU</i>), Xiuzhuang Zhou (<i>Capital Normal University</i>), Jie Zhou (<i>Tsinghua University</i>), Modesto Castrillón-Santana (<i>SIANI-Universidad de Las Palmas de Gran Canaria</i>), Javier Lorenzo-Navarro (<i>SIANI-Universidad de Las Palmas de Gran Canaria</i>), Lu Kou (<i>Capital Normal University</i>), Yuanyuan Shang (<i>Capital Normal University</i>), Andrea Bottino (<i>Politecnico di Torino</i>), Tiago Vieira (<i>Politecnico di Torino</i>)</p> <p>The IJCB 2014 PaSC Video Face and Person Recognition Competition J Beveridge (<i>Colorado State University</i>), Hao Zhang (<i>Colorado State University</i>), Patrick Flynn (<i>University of Notre Dame</i>), Yooyoung Lee (<i>Dakota-Consulting and NIST</i>), Venice Erin Liong (<i>ADSC, Singapore</i>), Jiwen Lu (<i>ADSC, Singapore</i>), Marcus Angeloni (<i>Fundação CPqD, Brazil</i>), Tiago Pereira, Haoxiang Li (<i>Stevens Institute of Technology</i>), Gang Hua, Vitomir Struc (<i>University of Ljubljana</i>), Janez Krizaj, Jonathon Phillips (<i>NIST</i>)</p> |
| <p>Wednesday 19:00 – 21:00</p> <p>Invited Talk</p> <p>Banquet Dinner</p> <p>IJCB 2014 Awards</p>  | <p>Session Chair: Sudeep Sarkar (<i>University of South Florida, USA</i>) Venue: Island Ballroom</p> <p>Face Recognition: Pushing the Boundaries Speaker: Mark Burge (<i>IARPA, USA</i>)</p> <div style="display: flex; justify-content: center; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin: 0 10px;">  </div> <div style="text-align: center;"> <p>Banquet Dinner</p> </div> <div style="border: 1px solid black; padding: 2px; margin: 0 10px;">  </div> </div> <p><i>Who wants to be (biometrics) Millionaire?</i></p> <ul style="list-style-type: none"> IAPR Senior Biometrics Investigator Award IAPR Best Biometrics Student Paper Award Five Year Highest Impact Award for BTAS Paper BTAS Best Paper Award IJCB 2014 Biometrics Competitions Awards IJCB 2014 Best Reviewers Awards IJCB 2014 Best Poster Awards (Day 1, Day2) |



IJCB 2014

Program Schedule

| Thursday, October 02, 2014 | |
|---|--|
| Thursday 07:30 - 08:10 | Breakfast: Palm/Bay |
| Thursday 08:40 - 10:00  pg 386 | Oral Session V : Fusion and Others Session Chair: Sébastien Marcel (<i>Idiap Research Institute</i>) Venue: Island Ballroom Score-Level Fusion by Generalized Delaunay Triangulation Yasushi Makihara (<i>Osaka University</i>), Daigo Muramatsu (<i>Osaka University</i>), Md. Altab Hossain (<i>University of Rajshahi</i>), Haruyuki Iwama (<i>Osaka University</i>), Trung Thanh Ngo (<i>Osaka University</i>), Yasushi Yagi (<i>Osaka University</i>) |
| pg 394 | Soft Biometrics for Subject Identification using Clothing Attributes Emad Jaha (<i>King Abdulaziz University</i>), Mark Nixon (<i>University of Southampton</i>) |
| pg 400 | Cross-View Gait Recognition Using View-Dependent Discriminative Analysis Al Mansur (<i>Osaka University</i>), Yasushi Makihara (<i>Osaka University</i>), Daigo Muramatsu (<i>Osaka University</i>), Yasushi Yagi (<i>Osaka University</i>) |
| pg 408 | Sensor Orientation Invariant Mobile Gait Biometrics Yu Zhong (<i>BAE Systems</i>), Yunbin Deng (<i>BAE Systems</i>) |
| Thursday 10:00 – 10:45  pg 416 | Spotlights : Poster Session III Session Chair: Karl Ricanek (<i>UNCW</i>) Venue: Island Ballroom A Study on the Influence of Body Weight Changes on Face Recognition Lingyun Wen (<i>West Virginia University</i>), Guodong Guo (<i>West Virginia University</i>), Xin Li (<i>West Virginia University</i>) |
| pg 422 | A Novel Eyebrow Segmentation and Eyebrow Shape-based Identification T. Hoang Ngan Le (<i>Carnegie Mellon University</i>), Utsav Prabhu (<i>Carnegie Mellon University</i>), Marios Savvides (<i>Carnegie Mellon University</i>) |
| pg 430 | Impact of Sensor Ageing on Iris Recognition Thomas Bergmüller (<i>Authentic Vision GmbH</i>), Luca Debiasi (<i>University of Salzburg</i>), Andreas Uhl (<i>University of Salzburg</i>), Zhenan Sun (<i>CRIPAC, NLPR, CASIA</i>) |

| | |
|--------|--|
| pg 438 | <p>The First ICB Competition on Iris Recognition Man Zhang (<i>CASIA</i>), Jing Liu (<i>University of Science and Technology of China</i>), Zhenan Sun (<i>CRIPAC, NLPR, CASIA</i>), Tieniu Tan (<i>CRIPAC, NLPR, CASIA</i>), Wu Su (<i>Zhuhai YiSheng Electronics Technology Co, Ltd</i>), Fernando Alonso-Fernandez (<i>Halmstad University, Sweden</i>), Valérian Nêmesin (<i>Aix-Marseilles University</i>), Nadia Othman (<i>Institut Mines-Tel'ecom</i>), Koichi Noda (<i>Nihon System Laboratory, Ltd</i>), Peihua Li (<i>School of Information and Communication Engineering</i>), Edmundo Hoyle (<i>University Federal of Rio de Janeiro</i>), Akanksha Joshi (<i>CDAC</i>)</p> |
| pg 444 | <p>Performance Evaluation of Fingerprint Open-Set Identification Algorithms Elham Tabassi (<i>NIST</i>), Craig Watson (<i>NIST</i>), Gregory Fiumara (<i>NIST</i>), Wayne Salamon (<i>NIST</i>), Patricia Flanagan (<i>NIST</i>), Su Lan Cheng (<i>NIST</i>)</p> |
| pg 452 | <p>Learning to Predict Match Scores for Iris Image Quality Assessment Michael Happold (<i>Neya Systems, LLC</i>)</p> |
| pg 460 | <p>GETSEL: Gallery Entropy for Template SElection on Large datasets Maria De Marsico (<i>Sapienza University of Rome</i>), Daniel Riccio (<i>University of Naples</i>), Yenisel Plasencia-Calaña (<i>CENATAV - Cuba</i>), Heydi Mendez-Vazquez (<i>CENATAV - Cuba</i>)</p> |
| pg 468 | <p>Robust Face Recognition by an Albedo based 3D Morphable Model Guosheng Hu (<i>University of Surrey</i>), Chi-Ho Chan (<i>University of Surrey</i>), Fei Yan, William Christmas (<i>University of Surrey</i>), Josef Kittler (<i>University of Surrey</i>)</p> |
| pg 476 | <p>Use of Language as a Cognitive Biometric Trait Neeti Pokhriyal (<i>University at Buffalo</i>), Ifeoma Nwogu (<i>SUNY Buffalo</i>), Venu Govindaraju (<i>SUNY Buffalo</i>)</p> |
| pg 484 | <p>Recognizing Composite Sketches with Digital Face Images via SSD Dictionary Paritosh Mittal (<i>IIT Delhi</i>), Aishwarya Jain (<i>IIT Delhi</i>), Gaurav Goswami (<i>IIT Delhi</i>), Richa Singh (<i>IIT Delhi</i>), Mayank Vatsa (<i>IIT Delhi</i>)</p> |
| pg 490 | <p>Quality of Fingerprint Scans Captured using Optical Coherence Tomography Ctirad Sousedik (<i>Gjøvik University College, Norway</i>), Christoph Busch (<i>Gjøvik University College, Norway</i>)</p> |

IJCB 2014

Program Schedule

| Thursday, October 02, 2014 | |
|----------------------------|--|
| pg 498 | <p>Fingerprint Liveness Detection based on Histograms of Invariant Gradients Carsten Gottschlich (<i>University of Goettingen</i>), Emanuela Marasco (<i>West Virginia University</i>), Allen Yang (<i>UC Berkeley</i>), Bojan Cukic (<i>West Virginia University</i>)</p> |
| pg 505 | <p>Recognizing Infants and Toddlers Using Fingerprints: Increasing the Vaccination Coverage Anil Jain (<i>Michigan State University</i>), Kai Cao (<i>Michigan State University</i>), Sunpreet Arora (<i>Michigan State University</i>)</p> |
| pg 513 | <p>Classification and Authentication of One-dimensional Behavioral Biometrics John Monaco (<i>Pace University</i>)</p> |
| pg 521 | <p>Automatic Adaptation of Fingerprint Liveness Detector to New Spoof Materials Ajita Rattani (<i>Michigan State University</i>), Arun Ross (<i>Michigan State University</i>)</p> |
| pg 529 | <p>Efficient Face Retrieval using Synecdoches Brendan Klare (<i>Noblis</i>), Austin Blanton (<i>Noblis</i>), Benjamin Klein (<i>Noblis</i>)</p> |
| pg 536 | <p>Shared Research Dataset to Support Development of Keystroke Authentication Esra Vural (<i>Clarkson University</i>), Jiaju Huang (<i>Clarkson University</i>), Daqing Hou (<i>Clarkson University</i>), Stephanie Schuckers (<i>Clarkson</i>)</p> |
| pg 544 | <p>The Value of Posture, Build and Dynamics in Gesture Based User Authentication Jonathan Wu (<i>Boston University</i>), Prakash Ishwar (<i>Boston University</i>), Janusz Konrad (<i>Boston University</i>)</p> |
| pg 552 | <p>Iris Recognition Using Block Local Binary Patterns and Relational Measures Aditya Nigam (<i>IIT Kanpur</i>), Vamshi Krishna (<i>IIT Kanpur</i>), Amit Bendale (<i>Indian Institute of Technology</i>), Phalguni Gupta (<i>IIT Kanpur</i>)</p> |
| pg 558 | <p>Assessment of Psychophysiological Characteristics Using Heart Rate from Naturalistic Face Video Data Abhijit Sarkar (<i>Virginia Tech, VTTI</i>), A. Lynn Abbott (<i>Virginia Tech</i>), Zachary Doerzaph (<i>VTTI</i>)</p> |
| Thursday 10:45 – 12:30 | <p>Coffee Break and Poster Session III Venue: Grand Ballroom (Bay/Palm)  </p> |
| Thursday 12:30 – 14:00 | <p>Lunch Venue: Rusty's Bistro </p> |

| | |
|---|---|
| <p>Thursday 14:00 – 15:00</p> <p>Invited Talk</p> | <p>Session Chair: Mark Nixon (<i>University of Southampton</i>) Venue: Island Ballroom</p> <p style="text-align: center;">★ Biometrics: A Personal Journey ★</p> <p>Speaker: <i>IAPR Senior Biometrics Investigator Award Winner</i></p> |
| <p>Thursday 15:00 – 15:20</p> | <p>Coffee Break </p> <p>Venue: Grand Ballroom (Bay/Palm)</p> |
| <p>Thursday 15:20 – 16:40</p> <p></p> <p>pg 564</p> <p>pg 572</p> <p>pg 579</p> <p>pg 586</p> | <p>Oral Session VI : Best Reviewed Papers Session Chair: Ioannis Kakadiaris (<i>University of Houston</i>) Venue: Island Ballroom</p> <p>Age Invariant Face Recognition based on Texture Embedded Discriminative Graph Model Hongyu Yang (<i>Beihang University</i>), Di Huang (<i>Beihang University</i>), Yunhong Wang (<i>Beihang University</i>)</p> <p>Efficient Auto-Refocusing of Iris Images for Light-Field Cameras Chi Zhang (<i>CRIPAC, NLPR, CASIA</i>), Guangqi Hou (<i>CRIPAC, NLPR, CASIA</i>), Zhenan Sun (<i>CRIPAC, NLPR, CASIA</i>), Tieniu Tan (<i>CRIPAC, NLPR, CASIA</i>)</p> <p>Generalized Textured Contact Lens Detection by Extracting BSIF Description from Cartesian Iris Images Jukka Komulainen (<i>University of Oulu</i>), Abdenour Hadid (<i>University of Oulu</i>), Matti Pietikäinen (<i>University of Oulu</i>)</p> <p>Generalizing Face Quality and Factor Measures to Video Yooyoung Lee (<i>Dakota-Consulting and NIST</i>), P. Jonathon Phillips (<i>NIST</i>), James J. Filliben (<i>NIST</i>), J. Ross Beveridge (<i>Colorado State University</i>), Hao Zhang (<i>Colorado State University</i>)</p> |
| <p>Thursday 16:40 - 17:00</p> | <p>Closing Remarks by Conference Chairs </p> |

