

First IEEE International Conference on Biometrics: Theory, Applications, and Systems (BTAS 07)

BTAS 07 was held September 27-29 at the Crystal City Doubletree Hotel, in the Washington DC area. The technical program consisted of approximately sixty presented papers, plus four invited talks. Participation in BTAS 07 was truly international – there were papers from authors in Austria, England, France, Germany, India, Italy, Korea, the Netherlands, Norway, the Peoples Republic of China, Portugal, Scotland, Spain, Switzerland, Taiwan (ROC), and of course, the United States. Also, participation cut across industry (with authors and speakers from Sagem Sécurité, Philips Research, Booz Allen Hamilton, IBM, Thales Research & Technology, ID Technology, France Telecom, GE Global Research, ...) government (with authors and speakers from NIST, DHS, FBI Academy, ITIC, and Naval Research Lab, ...), and academia.



The organizers of BTAS 07 want to express special thanks to our corporate supporters of this year's conference. They are, in alphabetical order, are General Electric, Honeywell, L1 Identity Systems, Motorola, Sagem-Morpho, SAIC, and Ultra-Scan. Their support was instrumental to the huge success of BTAS 07, and testimony to the quality and relevance of the technical program.

The conference opened with an invited talk by Professor John Daugman from Cambridge University, "Evolving Methods in Iris Recognition, and Implications from 200 Billion Iris Pair Comparisons." Another invited talk was given on the second day by Dijana Petrovska, "First Results of the BioSecure Multimodal Evaluation Campaign: BMEC2007." The banquet dinner speaker was Simon Cole, from the University of California at Irvine, who gave a very entertaining and informative talk on "Biometrics in the 21st Century: A Historian's View," generating many questions and much discussion. The closing day of the conference featured two invited talks. Michael C. King from the Intelligence Technology Innovation Center spoke on "Advanced Biometrics Research: An IC Perspective." Also, Chris Miles, who recently accepted the post as DHS Science & Technology Biometrics Program Manager, spoke on "DHS Biometric Research and Development Initiatives."

The Honeywell Best Student Paper Award winner was recognized at the conference banquet. This award went to Mayank Vatsa and Richa Singh, from West Virginia University, for their paper, "Unification of Evidence Theoretic Fusion Algorithms: A Case Study in Level-2 and Level-3 Fingerprint Features." This paper was co-authored with their faculty advisor, Afzel Noore. Three papers also received Honorable Mention for the Honeywell Best Student Paper Award. The students who received Honorable Mention are Yui Man Lui, for the paper "Evolution Strategies for Matching Active Appearance Models to Human Faces," authored with

faculty advisors Ross Beveridge, Adele Howe and Darrell Whitley from Colorado State University; Jiang Li, for the paper “Verifying Fingerprint Match by Local Correlation Methods,” with faculty co-authors Sergey Tulyakov and Venu Govindaraju from SUNY Buffalo; and Marcos Martinez-Diaz, for the paper “Universal Background Models for Dynamic Signature Verification,” with faculty co-authors Julian Fierrez and Javier Ortega-Garcia from the Universidad Autónoma de Madrid.

Three program committee members also were recognized at the banquet for the quality of their reviewing for the conference. Authors of papers submitted to BTAS 07 were asked to complete a survey giving feedback on the quality of the reviews that their paper received. Committee members who received high survey marks from authors of the papers that they reviewed, including at least one paper that was not recommended for acceptance, received a certificate of appreciation at the banquet. The three committee members so recognized were Mark Nixon from the University of Southampton, Sudeep Sarkar from the University of South Florida, and Marios Savvides from Carnegie-Mellon University.

The closing day of the conference was well attended, due to the invited talks by Michael King and Chris Miles, and to the session of presentations of the papers tracked to a special section of the *IEEE Transactions on Systems, Man and Cybernetics - Part A*. Based on the reviews of the over one hundred papers submitted to BTAS, six papers fell naturally into a group where each received three or more reviews and all reviews were strongly positive. These papers appear in a short form in the conference proceedings and extended versions are now under review for *Trans SMC - A*. In addition to the best student paper already mentioned, these papers are “Hidden Markov Models for Spoken Signature Verification” by Andreas Humm, Jean Hennebert and Rolf Ingold from the University of Fribourg; “Non-Cooperative Persons Identification at a Distance with 3D Face Modeling” by Gerard Medioni and Jongmoo Choi from the University of Southern California; “Gait Feature Subset Selection by Mutual Information” by Baofeng Guo and Mark Nixon from the University of South Hampton; “Improving Device Interoperability by Likelihood Ratio-based Quality Dependent Score Normalization” by Norman Poh, Thirimachos Bourlai and Josef Kittler from the University of Surrey; and “Meta-Analysis of Third-Party Evaluations of Iris Recognition” by Elaine Newton and Jonathon Phillips from NIST.

The program co-chairs for BTAS 07 were Nalini Ratha from IBM Research, Venu Govindaraju from SUNY Buffalo, and Patrick Flynn from the University of Notre Dame. The general chair was Kevin Bowyer from the University of Notre Dame.

BTAS is sponsored by the IEEE Systems, Man and Cybernetics Society. As a bonus for attendees, and as evidence of SMC’s visibility in the biometrics area, copies of the October 2007 issue of *IEEE Transactions on Systems, Man and Cybernetics – Part B*, a special issue on the theme “Recent Advances in Biometric Systems,” were distributed to attendees.

Plans are currently being finalized for BTAS_08, to be held in the same area at the same time of year. Additional details will be available soon at http://www.cse.nd.edu/BTAS_08/. We look forward to seeing you there.