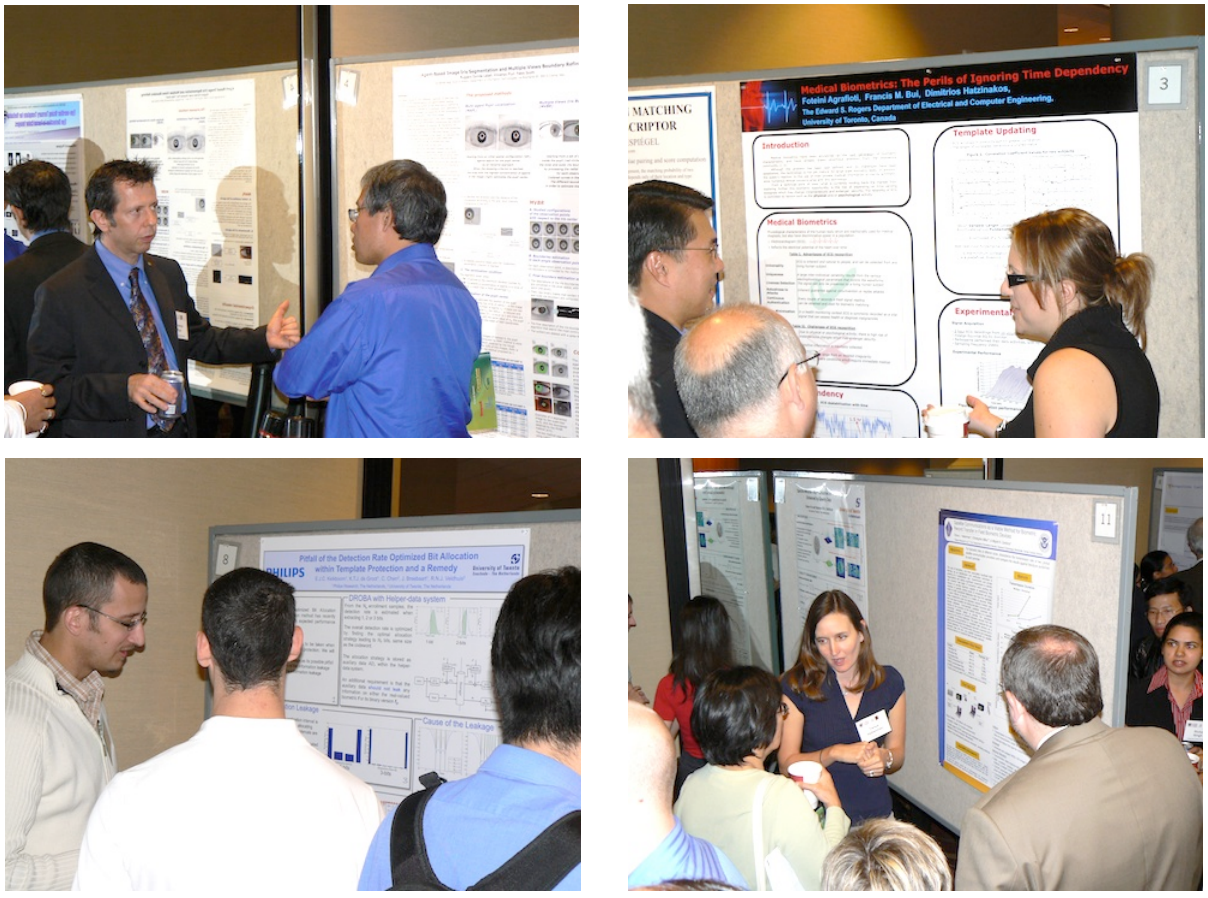
BTAS 2009 Conference Report

The ***Third IEEE International Conference on Biometrics Theory, Applications and Systems*** was held in Washington on September 28-30, 2009. The 180 registrants for ***BTAS '09*** is approximately a 20% increase over last year. This year's program included peer-reviewed research contributions presented as 28 long oral and 46 combined short oral + poster papers, three invited talks and two panel discussions.

This year's program featured what is likely the broadest international representation yet, including authors from Austria, Belgium, Brazil, Canada, China, France, Germany, Greece, Hong Kong, India, Italy, Japan, Korea, The Netherlands, Norway, Singapore, Slovenia, Switzerland, Taiwan, the United Kingdom, and the United States. The program also featured broad industry representation, including from Booz Allen Hamilton, Cognitec, Hitachi, IBM, Institute for Infocomm Research, Orica Canada, Lumidigm, Noblis, PatternLab, Phillips, Sagem, Securics, and Trident Research; and government, including the Department of Homeland Security, the Fraunhofer Institute, NIST and the US Army. The breadth of international and institutional representation is one of the strong positive aspects of *BTAS*.



Upper left: Vin Piuri, Università degli Studi di Milano, presents his paper on iris segmentation. Upper right: Foteini Agrafioti, University of Toronto, presents her paper on medical biometrics. Lower left: Emile Kelkboom, Philips Research, presents his paper on template protection. Lower right: Tanya Haberman, Trident Research, presents her paper on satellite communication for field biometric devices.

The corporate sponsors of BTAS '09 deserve sincere thanks. **Honeywell** graciously and generously, as in the past two years, sponsored the Best Student Paper Award. **Progeny Systems** sponsored the conference reception. And **L1 Identity Systems** and **Cognitec** were both general corporate sponsors. We sincerely appreciate the support of each of these companies.

Honeywell's Jan Jelinek congratulated Yui Man Lui at the conference dinner on winning the Honeywell Best Student Paper Award.

Continuing a BTAS tradition, the last session of the conference featured a selection of papers that received the overall best reviews. This save-the-best-reviewed-for-last session has proved popular in previous years, and was popular again this year. The session was chaired by Professor Rama Chellappa from the University of Maryland, who is the current president of the IEEE Biometrics Council and one of the General Chairs of the International Joint Conference on Biometrics to be held in 2011. The first paper in this session was titled "Canonical Stiefel Quotient and its Application to Generic Face Recognition in Illumination Spaces". The authors are Yui Man Lui (who presented the paper), Ross Beveridge and Michael Kirby, all from Colorado State University. At the conference banquet, it was announced that Yui Man Lui is the recipient of this year's Honeywell Best Student Paper Award. The second paper in this session was "Partial Matching of Interpose 3D Facial Data for Face Recognition", authored by Panagiotis Perakis, George Passalis and Theoharis Theoharis from the University of Athens, and George Toderici and Ioannis Kakadiaris from the University of Houston. The third paper in this session was "Simultaneous Latent Fingerprint Recognition: A Preliminary Study", authored by Mayank Vatsa and Richa Singh from the Indraprastha Institute of Information Technology in Delhi, and Afzel Noore and Keith Morris from West Virginia University. The fourth paper was "A 3D-Assisted Generative Model for Facial Texture Super-resolution", authored by Pouria Mortazavian, Josef Kittler and William Christmas from the University of Surrey. The fifth paper in this session was "Quality Based Rank-Level Fusion in Multibiometric Systems", by Ayman Abaza and Arun Ross from West Virginia University.

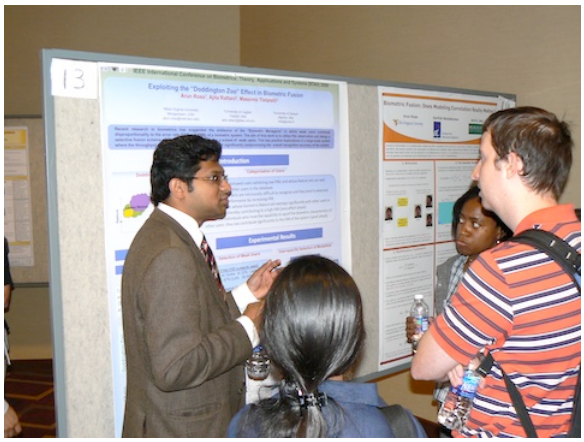
Left: Bernadette Dorizzi, Institut TELECOM, T&M SudParis, presents her paper on using pen coordinates, pressure and inclination in biometrics. Right: Ajay Kumar, Hong Kong Polytechnic, presents his paper on knuckle biometrics.

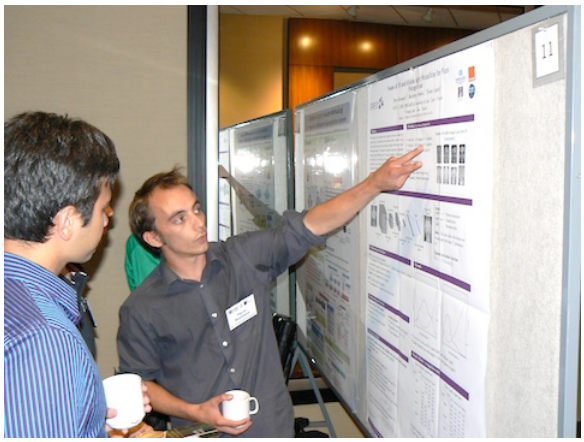
Top: Dirk Smeets. KU Leuven, presents his paper on expression-invariant 3D face recognition.
Middle: Richa Singh, Indraprastha Institute of Info Tech, presents her paper on online learning and biometrics.
Bottom: Eric Patterson, UNC-Wilmington, presents his paper on active appearance models and synthetic face aging.

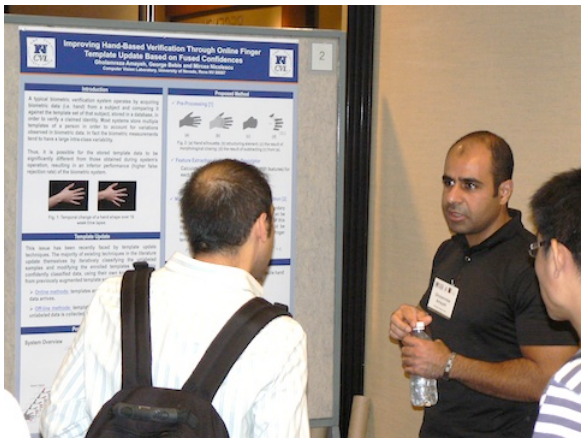
Following a tradition started last year, conference attendees voted for Best Poster Paper awards. There was a tie for Monday's winner, with attendees selecting both "Isometric Deformation Modeling Using Singular Value Decomposition for 3D Expression-Invariant Face Recognition" by Dirk Smeets, Thomas Fabry, Jeroen Hermans, Dirk Vandermeulen and Paul Suetens from Katholieke Universiteit Leuven, and "Improvements in Active Appearance Model Based Synthetic Age Progression for Adult Aging" by Eric Patterson, Amrutha Sethuram, Karl Ricanek and Frederick Bingham from UNC – Wilmington. On Tuesday, attendees selected "Biometric Fusion: Does Modeling Correlation Really Matter?" by Karthik Nandakumar from the Institute for Infocomm Research, Arun Ross from West Virginia University and Anil Jain from Michigan State University. On Wednesday, the winner was "Online Learning and Biometrics: A Case Study In Face Classifier Update" by Richa Singh and Mayank Vatsa from the Indraprastha Institute of Information Technology in Delhi, and Arun Ross and Afzel Noore from West Virginia University.

This year's conference featured three excellent invited speakers. Monday's invited talk, titled "Forensic DNA Typing", was given by Dr. Peter Vallone from the National Institute of Standards and Technology. Tuesday's talk, "Digital Tampering and Forensics", was given by Dr. Hany Farid from Dartmouth. Wednesday's talk, "Insights from the Intersection of Psychological and Computational Approaches to Face and Body Biometrics", was given by Dr. Alice O'Toole from the University of Texas at Dallas. Each of the invited speakers did a great job. The proceedings does not contain papers corresponding to these talks, but check the conference web site for an electronic copy of the speakers' slides.

There were two panel discussions this year. One had the theme "Spoof and Counter-Spoof: Will Your Doppelganger Break the System?" and the panelists were Stephanie Schuckers (Clarkson University), Arun Ross (West Virginia University),







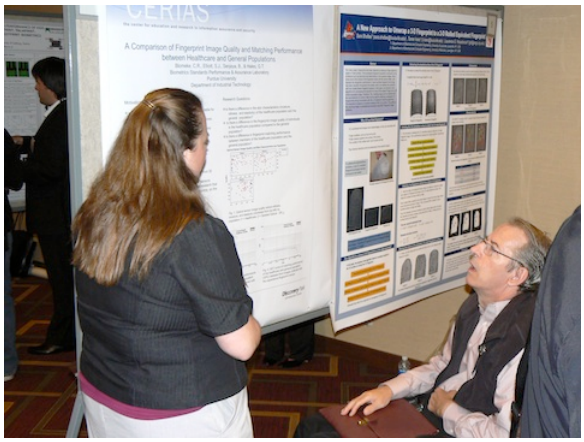
Rob Rowe (Lumidigm) and Phil Quick (Cognitec). The second panel had the theme "What Good Are Quality Metrics, Anyway?" and the panelists were Patrick Grother (National Institute of Standards and Technology), Krzysztof Kryszczuk (IBM Zurich Research Lab) and Austin Hicklin (Noblis).

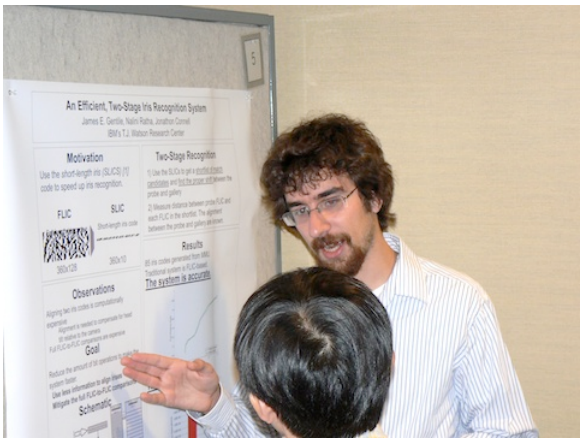
The number of papers submitted to *BTAS* has grown by 10% or more each year, reaching 139 this year. As the number of submissions has grown, the program committee size has also grown, and the conference has kept its "big tent" approach to the allowed scope. This means that the task that confronts the Program Chairs has become increasingly complex. Mark Nixon and Nalini Ratha did a masterful job as Program Co-Chairs, managing the submission, reviewing, and decision process, and constructing the conference program.

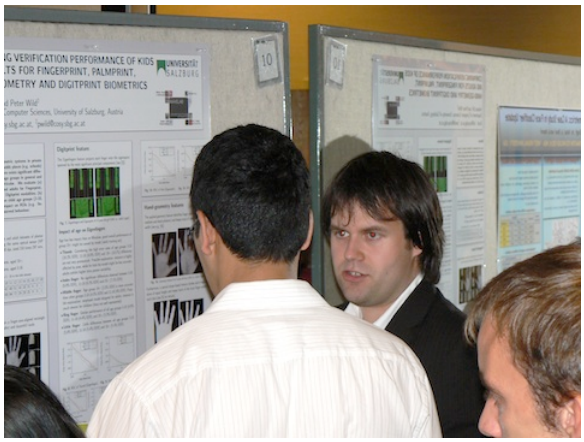
Patrick Flynn served as Publications Chair again, managing the process of getting the final versions of the papers in, producing the proceedings and getting papers into IEEE Xplore. The proceedings was given to attendees this year as a memory stick / laser pointer / pen combination.

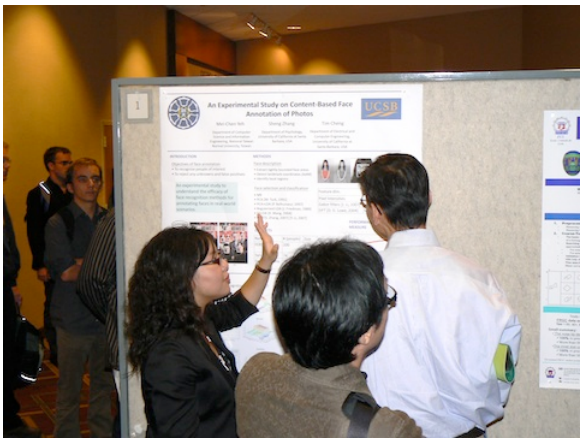
BTAS 09 was co-sponsored by the IEEE Systems, Man & Cybernetics Society and the new IEEE Biometrics Council. The Biometrics Council became a co-sponsor this year and is expected to continue to play an important role in future *BTAS* conferences.

Top: Arun Ross, West Virginia University, presents his paper on the "Doddington zoo" in biometrics. Middle: Pierre Buyssens, Orange Labs, presents his paper on fusion of IR and visible-light modalities for face recognition. Lower: Gholamreza Amayeh, University of Nevada, presents his paper on improving hand-based verification.









Upper left: Christine Blomeke, Purdue University, presents her paper on fingerprint quality in the general versus healthcare populations. Upper right: James Gentile, IBM Research, presents his paper on iris biometrics. Lower left: Peter Wild, University of Salzburg, presents his paper on comparing Fingerprint, Palmprint, Hand-geometry and Digitprint. Lower right: Mei-Chen Yeh, National Taiwan Normal University, presents her paper on content-based annotation of photos.

BTAS '10 will be held on September 27-29. The web page for more information is http://www.cse.nd.edu/BTAS_10/. For those who like to plan well ahead, 2011 will be a special year for *BTAS*. By agreement between the *BTAS* organizers and the International Association for Pattern Recognition, *BTAS* and the IAPR International Conference on Biometrics (ICB) will be combined into a single event to be called the *International Joint Conference on Biometrics*. An organizing committee with broad international representation will develop the program and themes for this meeting, which will be held in September 2011 in the Washington, DC area. In 2012, *BTAS* will re-emerge as a separately branded meeting.

I look forward to seeing you at *BTAS 10.*

Kevin W. Bowyer
General Chair for *BTAS '09*