National Institute of Standards and Technology

INTERNATIONAL BIOMETRIC PERFORMANCE CONFERENCE

Evaluation and Performance of Biometric Technologies

National Physical Laboratory

Fraunhofer IGD

April 1-3, 2014

Call for Papers

NIST, NPL and Fraunhofer IGD invite talks for the IBPC conference on performance and testing of biometric systems. The forum will bring together evaluators, users, technology providers to discuss performance in applications that embed biometric functions or component. The conference is focused on quantitative, applied biometrics, aiming to elicit information that guides policy, design, planning, and implementation of high performance biometric systems, particularly how systems are tested, certified, upgraded and improved. The goal is not to give specific testing results unless the test methods are novel or the results are fundamental to future decisions. The conference specifically invites talks on automated border control (ABC), video-based recognition, security, and emerging biometric uses. The conference aims to advance and expand the use of biometrics by targeting operationally relevant themes, giving emphasis to design, procurement, and what performance data operators require from test and evaluation activities.

Topic area I: Test methods:

Identification systems: metrics, limits, scalability, relation to 1:1
Recognition in video: archival and streaming, multiple persons, cameras
Product vs. component tests, certification, interoperability
Use of biometrics in early life: Effects of age and ageing
Beyond the DET: Novel tests and performance metrics
Efficient testing, re-usable testing, frameworks
Statistical methods for efficiency, for prediction
Desirable, undesirable algorithm properties – 1:1, 1:N and forensics
Desirable, undesirable sample properties, and quality estimation
Performance of sensors and capture devices
Untested, unspoken aspects of performance: what matters, what does not, what's in the noise?
Testing and standardization gaps; testing in academia
Usability and accessibility testing for biometrics

Topic area II: Operational aspects

Certification: When is it viable, needed and cost effective
How to drive error rates lower: Measurement for control + mitigation
Quality of samples and databases. Evaluation / roles of Quality
Designing tests as integral parts of operational systems; cloud tests
Total system performance and tradeoffs: Accuracy, speed, security, reliability, usability, interoperability, scalability, assurance, stability
How to specify performance in a procurement document
Technology vs. scenario vs. operational vs. other tests
Realizing multimodal benefits: fusion beyond simple OR
Data and its ground-truth: operational vs. laboratory vs. synthetic

Topics area III: Security and privacy aspects

Security: risks, priors, costs, fallbacks, evaluation of multifactor auth.
Resilience under active attacks (vulnerability, spoofing)
Defeat of systems (detection of evasion)
Feasibility of common criteria testing of biometric components
Privacy enhancing technology, de-identification
Remote authentication: Challenges, assurance, testing
Template protection and biometric pseudo-identifiers
Retrospectives, lessons learned, long term perspective, critical appraisal of other programs, events, specifications.

Program Committee:

Patrick Grother, Elham Tabassi, NIST, US
Tony Mansfield, NPL, UK
Christoph Busch, Fraunhofer IGD, DE

Intended speakers:

Research and development staff, system analysts, users, evaluators, planners, writers of technical specifications, standards developers and adopters.

Target audience:

Professionals concerned with biometric system evaluation, procurement, deployment, maintenance, design, configuration, integration, standardization, research and development.

Important dates:

Jan 11 2014	**Submission of 1-5 page abstract**
Feb 01 2014	Notification of acceptance
Mar 23, 2014	Submission of slides + papers
Mar 23, 2014	Online registration closes
Mar 31 2014	**Satellite Workshops I: a. Vulnerability assessment b. TBA**
Apr 01 2014 Apr 03 2014	**IBPC 2014 Conference**
Apr 04 2014	**Satellite Workshops II: TBA**

Logistics:

When:	April 1-3, 2014
Where:	Green Auditorium (cap. 250) NIST Gaithersburg, MD, USA
Internet:	Wireless
Hotel:	Gaithersburg area hotels, TBA
Fee:	$US 175 (estimate) via registration

Contact the organizers:

Email: ibpc2014 AT nist DOT gov

Homeland Security Science and Technology