

Biometric Consortium 2004 Conference

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Topic: NIST Patriot Act Biometric Testing

Abstract: Since January of 2002 NIST has been conducting Patriot Act mandated test on biometric systems. This talk will discuss test of vendor fingerprint algorithm, the FpVTE and SDK tests, test performed for the US-VISIT system, and a new image quality measure for fingerprints developed as part of this work.

Biography:

Mr. Wilson has worked in various areas of computer modeling ranging from semiconductor device simulation, for which he received a DOC gold medal in 1983, and computer aided design to neural network pattern recognition at Los Alamos National Laboratory, AT&T Bell Laboratories and for the last 24 years NIST. He is currently the manager of the Image Group in the Information Technology Division.

This NIST group designed the first AFIS system for the FBI in 1968 and had worked on a wide range of pattern recognition system evaluation for the last 12 years. In 1992 and 1993 large the group conducted large scale OCR for the Census Bureau and the IRS. This was followed by one of the first comparative studies of statistical and neural network recognition algorithms in 1994. The group has worked on face and fingerprint system actively since that time.

When the Patriot and Border Security Acts were passed, NIST was mandated to provide accuracy and interoperability standards for border security. This mandate is presently being carried out in the Image Group. As a result of this work, NIST, jointly with the Department of Justice, the Department of Homeland Security, and the Department of State submitted the report "Use of Technology Standards and Interoperable Databases With Machine-Readable, Tamper-Resistant Travel Documents" to Congress on February 4, 2003. As a part of this effort NIST presently collected over 6M test images of faces and 68M fingerprints from 16M individuals for large scale testing of current biometric systems. The results of these large-scale tests are available at the site: fingerprint.nist.gov Mr. Wilson received a Second DOC gold medal for this work in 2003.