

Biometric Consortium 2004 Conference

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Topic: Predicting Performance of Fused Biometric Systems

Abstract: Useful Fusion Models for use with combining uncorrelated BioAPI compliant modules are discussed. They can be used to predict the fused False Acceptance Rate (FAR) of a combined multi-biometric system. In general, these fusion models have applications to biometrics with input quality variations that render the True Acceptance Rate (TAR) difficult to predict. An example given is the fusion of Face Features and Skin biometrics.

Biography: Dr. Paul Griffin is a 22-year veteran of applied research and development. As the CTO for Identix, he directs all research and engineering efforts. Dr. Griffin has extensive experience applying biometrics technology. He led the development of FaceIt, a facial recognition product that performed in the top three in the Facial Recognition Vendor Test (FRVT). He was the Identix PI for the DARPA Human ID at a Distance Program and was the PI for several other projects for a classified customer. He recently developed new algorithms for the fusion of multiple biometrics and is currently the editor of the US face recognition standard proposal and the co-editor of the international version. Dr. Griffin is responsible for overseeing the technical development of all product lines as well as the integration of the technologies into products, systems and platforms into deliverables that will best serve market demands.

Prior to his role as Chief Technology Officer for Identix, Dr. Paul Griffin served the same function for Visionics Corporation, which he co-founded with Dr. Atick.

Prior to joining Visionics, Dr. Griffin worked at the Computational Neuroscience Laboratory for the Rockefeller University as a research associate and had held doctoral fellowships at the Fermi National Accelerator Laboratory in Illinois and the Superconducting Supercollider (SSC) National Laboratory in Texas, focusing on computational methods in particle physics.

Dr. Griffin earned his B.A. in Physics in 1983 from the University of California at Berkeley as the top undergraduate physics student, and subsequently earned his Ph.D. in theoretical physics from Stanford University in 1988.

He has published over 25 original papers in the fields of mathematical physics, computational physics, and pattern recognition.

Selected Publications

P. Griffin and R. Lazarick, On the Scope of Multi-Biometrics Standards Activities. International Committee for Information Technology Standards (INCITS), Washington, DC, Report M1/04-0030, 2004.

P. Griffin. "Optimal Biometric Fusion for Identity Verification", Identix Corporate Research Center Preprint RDNJ-0064-03, September 2003.

P. Griffin, "How to Fuse Two Biometrics Together". Identix Corporate Research Center Preprint RDNJ-0072-03, September 2003.

J. Atick and P. Griffin, and N. Redlich, The Vocabulary of Shape: Principal shapes for probing perception and neural response, *Network: Computation in Neural Systems*, 7, 1-5, 1996.

