

KEYNOTE TALK
Wednesday, November 8, 2006
14:00-15:00 / Sand Harbor II

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Fusing Noncontact Biometrics: Face, Gait and Ear

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Abstract

This talk will describe progress in multimodal biometric fusion and in the newer vision-based biometrics, ear and gait. The current interest in multimodal biometric fusion arises not only from ability to improve enrolment, but also from the potential performance advantage achieved by fusing complementary technologies. Currently there are two portal systems in development aiming to provide fusion based access control, one using face and iris and the other using face, gait and ear. Gait is attractive as a biometric since it concerns motion, is available at a distance and can cue acquisition of other biometrics. Ears are attractive as a biometric since their structure changes little with age and their covariate structure is considerably less complex than other approaches. As such, this talk will encompass two of the newer vision-based biometrics and whilst describing progress, also assess suitability for deployment in a multimodal biometric system.



speaker Bio-sketch: Mark Nixon is the Professor in Computer Vision at the University of Southampton UK. His research interests are in [image processing and computer vision](#). His team develops new techniques for static and moving shape extraction which have found application in automatic face and [automatic gait recognition](#) and in medical image analysis. His team were early workers in face recognition, later came to pioneer gait recognition and more recently joined the pioneers of ear biometrics. Amongst research contracts, he was Principal Investigator with John Carter on the DARPA supported project [Automatic Gait Recognition for Human ID at a Distance](#). He chaired BMVC 98 and with Josef Kittler he chaired the [Audio Visual Biometric Person Authentication \(AVBPA 2003\)](#), was Publications Chair for the [International Conference on Pattern Recognition \(ICPR 2004\)](#) and the [IEEE 7th International Conference on Face and Gesture Recognition FG2006](#). His vision book, co-written with Alberto Aguado, [Feature Extraction and Image Processing](#) was published in 2002 by Butterworth and with Tieniu Tan and Rama Chellappa, his new book [Human ID based on Gait](#) which is part of the new Springer Series on Biometrics, was published in 2005. Dr. Nixon is a member of the IEEE.