

Biometric Consortium 2005 Conference

Dr. Hartmut Neven
Founder & CEO
Neven Vision

2400 Broadway
Santa Monica, CA 90404
Phone: 310.828.0898. neven@nevenvision.com

Topic: Single Image Multi-Biometric Analysis (SIMBA)

Abstract: Single Image Multi-Biometric Analysis (SIMBA) is a new method for biometric identification for handheld mobile devices integrating classic facial feature comparison, skin texture analysis and iris scanning using a single high resolution camera built into a mobile device. We anticipate that the false rejection rate will be below 0.001 at a false acceptance rate of 0.01 for a wide range of operating conditions thus exceeding traditionally preferred finger printing in accuracy. For the first time this will make it possible to efficiently search large databases with a non-invasive biometric that only requires minimal cooperation by the individual to be identified.

Fast and accurate identification of persons in the field is an important task that is performed frequently by law enforcement personnel and security teams. Any solution that assists with this chore and enables faster, safer and more reliable identification will act as "force multiplier," freeing up officers to attend to other tasks.

Biography: Dr. Hartmut Neven is co-founder and Chief Executive Officer of Neven Vision Inc. and the leader of the Laboratory for Human-Machine Interfaces at the University of Southern California's Information Sciences Institute.

Prior to forming Neven Vision, Dr. Neven was the Chief Technology Officer of Eyematic Inc. a science driven company that emerged as technology and concept leader in human-machine interfaces and visual communications. Based on research conducted under Dr. Neven's tutelage, Eyematic developed a significant number of patented processes.

Dr. Neven was Assistant Professor of Computer Science at the University of Southern California where he led the Laboratory for Biological and Computational Vision, focusing on vision-based human-machine interfaces. Under his guidance the USC team won the DARPA sponsored 1997 FERET test on face recognition systems. His Eyematic team again achieved excellent scores in the Face Recognition Vendor Test 2002. He was also a principal investigator for the National Tele-Immersion Initiative led by cyber-pioneer Jaron Lanier who is widely recognized for coining the term "virtual reality".

Hartmut Neven is a member of IEEE as well as the program committee of the Digital Life Consortium at the MIT Media Lab.

During his graduate studies Dr. Neven was a fellow at the Studienstiftung des Deutschen Volkes which offers scholarships for the top 0.5% of German academics. His Master of Science thesis on a neuronal model of object recognition was written at the Max Planck Institute for Biological Cybernetics. 1996 he received his Ph.D. summa cum laude from the Institute for Neuroinformatics at the Ruhr Universität in Bochum, Germany, for a thesis on "Dynamics for vision-guided autonomous mobile robots" written under the tutelage of Prof. Dr. Christoph von der Malsburg. He also studied Physics and Economics in Köln, Paris, Tübingen, Aachen, Jerusalem and Brazil.