



Iris Recognition: From Photons to Identity

Iris recognition (frequently confused with retinal recognition in the popular press) is a means of biometric identification with performance comparable to fingerprints. It has received attention recently as a possible biometric modality for mobile devices and is in use or under consideration for use in multiple large scale identity management systems. This talk will discuss the basic concepts of iris recognition from the illumination of the subject eye through the image processing and template matching algorithms to the determination of identity and will include discussion of basic concepts of biometric recognition in general.

James R. Matey received a BS in physics from Carnegie-Mellon University in 1973 and MS/Ph.D. in Physics from the University of Illinois, Urbana in 1974/1978. He joined the David Sarnoff Research Center in 1977 and retired from the Sarnoff Corporation in 2008 after 30 years of service and accepted a post as research professor in the Biometric Signal Processing Laboratory at the US Naval Academy. While at USNA, he accepted a concurrent appointment as a Guest Researcher at NIST. When his USNA appointment came to a close in 2012, he joined NIST as a staff member.

Dr. Matey's research interests include instrumentation, measurement science and computer vision. His current work concentrates on application of these techniques to biometrics. He was the technical lead for the Sarnoff team that developed the Iris on the Move™ systems. He has 15 patents and more than 50 papers in instrumentation, measurement science, biometrics and industrial processes.

Dr. Matey is a member of Phi Kappa Phi, Sigma Xi, the American Physical Society and the American Association of Physics Teachers. He is a Senior Member of the IEEE and the ACM. He has also held multiple offices in the local chapter and is currently on the chapter board.

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| Date: | Thursday, February 20, 2014, 8:00 pm. (Refreshments and networking at 7:30 pm.) |
| Place: | Small Auditorium, Room CS 105 Computer Science Building, Princeton University |
| Information: | Dennis Mancl (908) 582-7086 |
| On-line info: | http://PrincetonACM.acm.org |

All Princeton ACM / IEEE-CS meetings are open to the public. Students and their parents are welcome. There is no admission charge, and refreshments are served.

A pre-meeting dinner is held at 6:00 p.m. at Ruby Tuesday's Restaurant on Route 1. Please send email to princetonacm@acm.org in advance if you plan to attend the dinner.

