Thursday, February 17
Scaife Hall Auditorium
Room 125 at 4:30 p.m.
Refreshments at 4:00 p.m.

Marios Savvides
Associate Research Professor, ECE
Carnegie Mellon University

Marios Savvides is the Founder and Director of the CyLab Biometrics Center at Carnegie Mellon University. He is also an Associate Research Professor at the Electrical & Computer Engineering Department. He is one of the four chosen researchers to form the Office of the Director of National Intelligence (ODNI) 1st Center of Academic Excellence in Science & Technology with focus on Identity Sciences. His research is mainly focused in developing algorithms for robust face and iris biometrics as well as pattern recognition, machine vision and computer image understanding for enhancing biometric system performance. He is on the program committee on several Biometric conferences such as IEEE BTAS, SPIE Biometric Identification, IEEE AutoID and others as well as organizing and co-chairing Robust Biometrics Understanding the Science & Technology (ROBUST 2008) conference. He has authored and co-authored over 130 journal, conference publications, including several book chapters in the area of Biometrics and an served as an area editor of the Springer’s Encyclopedia of Biometrics. His achievements include being the technical lead in the R&D in CMU’s past participation with Prof. Vijayakumar Bhagavatula at NIST’s Face Recognition Grand Challenge (CMU ranked #1 in Academia and Industry at hardest experiment #4) and also in NIST’s Iris Challenge Evaluation (CMU ranked #1 in Academia and #2 against iris vendors). He is listed in Marquis Who’s Who in America and in Marquis Who’s Who in Science & Engineering. He has filed 5 patent applications in area of Biometrics and is the recipient of CMU’s 2008 Carnegie Institute of Technology (CIT) Outstanding Research Award.

Advancements in Unconstrained Biometric Identification

In this talk we will overview the advancements in developing reliable unconstrained Biometric Identification systems based on face and iris recognition. Under well controlled conditions, both face recognition and iris systems work very well. However as we relax the acquisition constraints, push the stand-off distance capturing irises can be challenging. We overview our work in overcoming these challenges and capturing irises up to 13m stand-off distances. Similarly, in face recognition we overview the advancements made in handling pose variation which is one of biggest challenges to overcome. We show that a single frontal image can be used to generate any off angle face for matching. Our results show that our models empirically generate images that match those from an actual 3D scanner. We will overview all the different research thrusts in our lab that try to address the challenges in reliable biometric identification under challenging conditions.

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