Research Presentation

April 11, 2019

9:30 – 10:30 AM

Room 262 RSC (Herrman Room)

Biometrics: Technology for Human Recognition

Abstract

Biometrics is the science of recognizing individuals based on their biological or behavioral attributes such as face, fingerprints, iris, gait, voice or typing pattern. Biometric solutions are being increasingly incorporated in various applications involving physical and logical access. A typical biometric system applies image processing, computer vision, and machine learning techniques for human recognition. The large-scale application of biometrics includes US-VISIT (OBIM) and Aadhar (India) programs. Recently, there has been a wide-scale integration of biometrics in mobile devices for secure access to sensitive information and authorized electronic transactions. The challenges associated include intra-class variations, such as lighting conditions, pose variations, and occlusion, and vulnerability to spoof attacks. In this talk, I will discuss my research contributions to the field of biometrics in enhancing recognition accuracy, robustness to spoof attacks, and soft biometric prediction.

Biography

Ajita Rattani is an Adjunct Graduate Faculty at the University of Missouri-Kansas City. Prior to joining the University of Missouri, she was a Postdoctoral Fellow at Michigan State University. She received the Ph.D. degree in computer science engineering from the University of Cagliari, Italy. Her research interests include biometrics, pattern recognition, machine learning, artificial intelligence, deep learning, and information fusion. Ajita has published more than 70 research papers in international conferences and journals. She is the editor of the books titled “Adaptive Biometric Systems: Recent Advances and Challenges” and “Selfie Biometrics: Recent Advances”. She is a recipient of the best paper award at Biometric Summer School 2008, IEEE IJCB 2014, and IEEE HST 2016. She is also principal investigator to research grants funded by industry and government agency.