ABSTRACT

Deep learning has transformed computer vision by achieving breakthrough results in object detection, face recognition, semantic segmentation, action recognition, and other applications. In this seminar, we overview recent research at RIT’s Vision and Image Processing Lab in the areas of adaptive learning and change detection. Domain Adaptation (DA) tries to overcome the dataset bias by adapting a classification engine from the source domain where it was trained to the target domain where testing takes place. We present an unsupervised deep domain adaptation approach that performs feature alignment and clustering for label transfer across domains. We also discuss Convolutional Long Short-Term Memory Networks (Conv-LSTMs) for predictive modeling and change detection in videos.

Speaker Bio Andreas Savakis is Professor of Computer Engineering at Rochester Institute of Technology (RIT). He received the B.S. (with Highest Honors) and M.S. degrees in Electrical Engineering from Old Dominion University, and the Ph.D. in Electrical and Computer Engineering with Mathematics Minor from North Carolina State University. His research interests include deep learning, domain adaptation, object tracking, expression and activity recognition, change detection, and computer vision applications. He has co-authored over 100 publications and 12 U.S. patents. He served as department head of Computer Engineering at RIT from 2000 to 2011. He is currently Associate Editor of the IEEE Transactions on Circuits and Systems for Video Technology and the Journal for Electronic Imaging.

Contact information: andreas.savakis@rit.edu