FALL 2014 SEMINAR SERIES

# "Edge based μ LBP for Valence Facial Expression Detection"

**Ruth Agada, Ph.D. student, Computer Science**
**Bowie State University**

**Tuesday, Nov. 25, 2014 @ 3:30 – 4:45 PM, CSB - Room** 210

**Ruth Agada** is a doctoral student of the Department of Computer Science at The Bowie State University, advised by Dr. Jie Yan. Her research interests include computer vision and machine learning the areas of facial expression recognition, multi-view face detection, tracking and recognition, 3D character animation, animated agents for tutoring applications, and hand gesture recognition and animation synthesis. Currently, she has been investigating aholistic features in facial expression data for valence classification. She earned her Bachelors in Computer Science from Bowie State University in 2009 and is currently working on her Doctorate in Science.

**Abstract**:
Recognition of spontaneous emotion would significantly influence human-computer interaction and emotion-related studies in many related fields. This paper endeavors to explore a holistic method for detecting emotional facial expressions by examining local features. In recent years examining local features has gained traction for nuanced expression detection. The local binary pattern is one such technique. Using the mean LBP, this modified mean LBP adds a discriminating factor to the examined feature via the addition of an edge detector. Hence, the Sobel based μ local binary pattern for the extraction of features in the human face. Using this method, the extracted feature is classified into its valence classes (positive and negative) using an SVM classifier.

Contact Dr. Soo-Yeon Ji (sji@bowiestate.edu) if you have any question.