

# UW CENTER FOR PATTERN ANALYSIS AND MACHINE INTELLIGENCE (CPAMI) GRADUATE SEMINAR SERIES

Audio-Based Emotion Recognition from Natural Speech Conversations

**Speaker:** Aya Sayedelahl

**Date:** February 15, 2012

**Time:** 4:30 pm- 5 pm

**Place:** E5 (5128) Refreshments will be served

**Abstract :**

A significant amount of research on automatic emotion recognition from speech was based on acted speech. Recently, the focus shifted towards the detection of emotions from natural spontaneous speech. One of the main difficulties, using real life data, is the fact that natural emotions are usually mixed and less intense. This work represents an initial step towards building an efficient audio-based emotion recognition system that can detect emotions for real life applications. The motivation behind that is the need to build an emotion recognition system that is capable of dealing with naturalistic emotional behaviour in large volumes of non-prototypical and non-preselected data. The detection and classification of emotions in four categorical dimensions: Activation, Valence, Expectancy and Power, is presented. The solid-SAL partition of the SEMAIN corpus is used as the benchmark database. New set of features employing the concept of Co-occurrence matrix and energy distribution in frequency domain is proposed. The classification performance is tested using SVM and K-NN classifiers. The proposed features have shown promising results compared to the classical prosodic and spectral features given this challenging database.

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