

**CCE5223 - Speech Technology and Coding
Assignment 2013 B**

Simple Speech Recognition System

To build a simple HMM continuous parameters with mixtures based recognition system for a predetermined enclosed set of words task.

Step 1 : Recording

Based on five to ten voices EACH recording for ten times a limited set of words in the list below

List of words:

wiehed, tnejn, tlieta,, ghaxra, zero, numru, cempel, mowbajl, vodafown, gow.

These words are embedded in short sentences made up from the same set of words.

After taping the following is required:

- (i) Isolate speakers, words into short frames suitable for computer work.
- (ii) Annotate at the phoneme level the utterances. This implies listening to the sentences and building a word to phoneme dictionary to be used by the HTK recogniser.
- (iii) Build up a simple language model for the utterances. The language model involves start words, middle words or extras, followed by numbers and ending words if any.
- (iv) Use HTK to build up the HMM's
- (v) Keep roughly 10% of the taped utterances for testing.
- (vi) Use HTK for the testing

I will act as a manager to ensure that all the infrastructure (building sentences, recording and equipment, splicing, overseeing annotation and language model, HTK software and HTK tutorial are available)