BİL735 Speech Recognition:
Assignment 2,
Data Capture and Feature Computation

15 March 2017

Write a routine for computing MFCC from audio
- Record multiple instances of digits multiple instances of digits
    - Zero, One, Two etc.
    - 16Khz sampling, 16 bit PCM
    - Compute log spectra and cepstra
- Use 40 Mel spectral filters. They must cover the frequencies between 50Hz and 7000Hz (you may use a different setting if you choose).
- No. of features = 13 for cepstra (use first 13 DCT coefficients)
    - Visualize both spectrographically (easy using matlab)
- Note similarity in different instances of the same word
    - Modify number of filters to 30 and 25 (over the same frequency range).
- Patterns will remain, but be more blurry
    - Record data with noise
- Degradation due to noise may be lesser on 25-filter outputs

The feature computation code must be integrated with the audio capture routine.

Start and stop of recording part is obtained via automatic endpointing.

Perform the program so that it runs through an user interface.

Due: 22 March 2017.