$\mathrm{CS}6300$ - Speech Technology: Laboratory 4 & 5

1. EE Compute the smoothed spectrum using cepstral processing.

non-EE Compute the spectrum using Linear Prediction analysis.

- 2. Extract formants, and plot the formant contours.
- 3. Perform VAD using zero crossing rate and short-term energy.
- $4.\,$ Extract pitch using autocorrelation method or cepstrum method after performing VAD.
- 5. Record a male and female voice for the sentence "We were away a year ago." Compute the spectrogram, perform VAD, extract formants and pitch. Overlay the formant and pitch curves on the spectrogram.