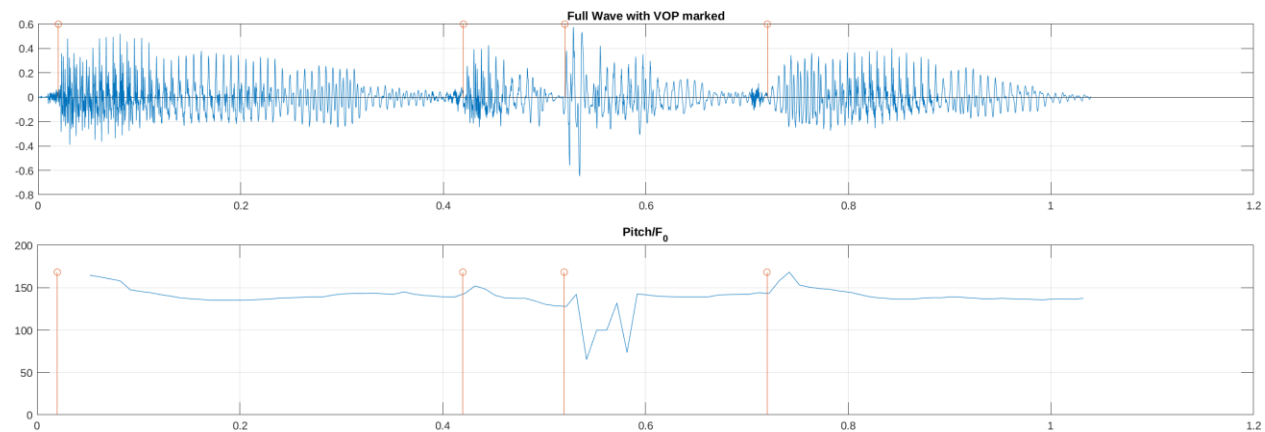# Assignment 5

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Semester: Monsoon 2020

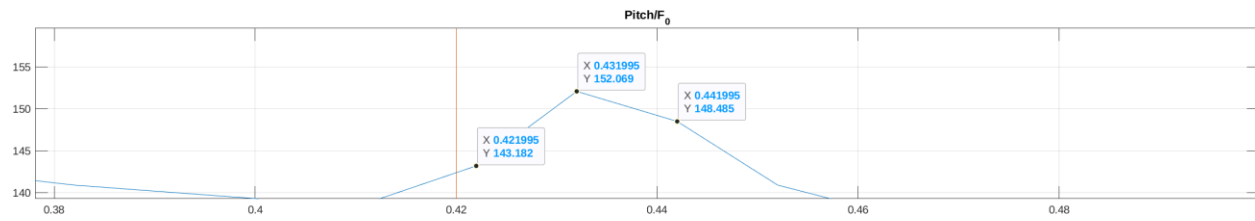Course: ECE448

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Question 1

(Plots are attached along with as q1.wav for clearer view)

Since the VOP were done manually, there might be issues with exact positioning.

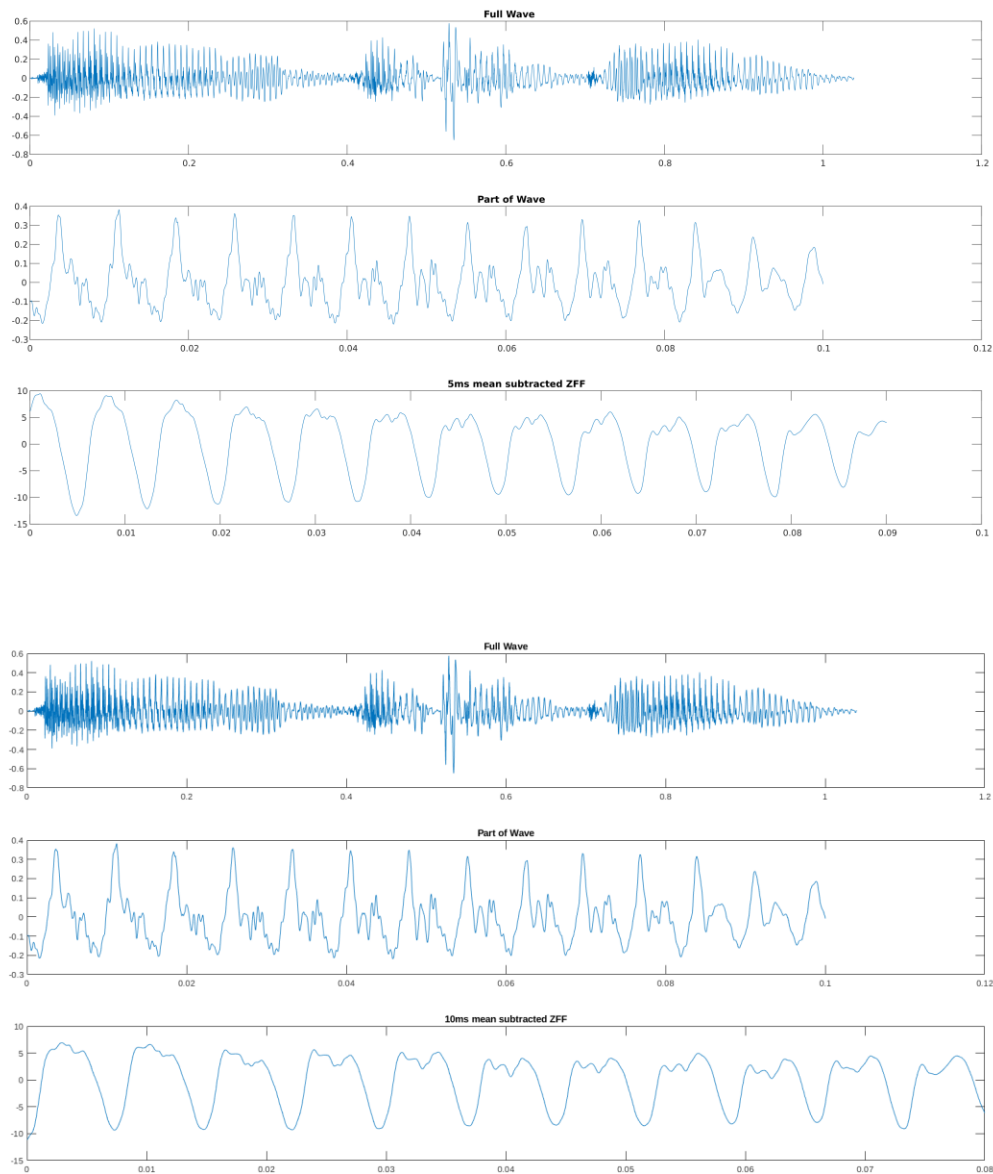Let us take the second VOP for our analysis.

- The durations of the two voiced region is approximately 0.39s - 0.48s = 90ms

- Distance of F_0 peak with respect to VOP (D_p) for the region is 0.42s - 0.432s = 12ms

$A_r = 12.952$, $A_f = 23.498$, $D_r = 42$, $D_f = 48$

- Amplitude Tilt A_t = -0.289

- Duration Tilt D_t = -0.067

- Change in log energy for that frame = 3.27919-1.67865 = 1.6 approx
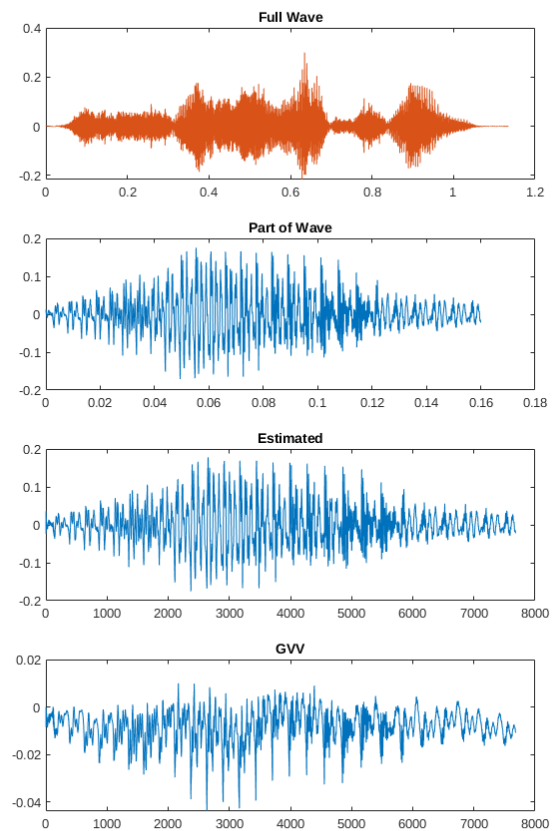
- Change in F_0 = 152.069-128.571 = 23.5Hz approx

Question 2

The corresponding wave is for q1.wav in the zip file attached along with

I have considered frame of length 100ms for this

Question 3

The following wave is of seriously.wav in the zip file attached along with. It has clear voiced segments and hence used for this exercise.