Lab Exercises 3
ELEC 9723

Write a function in MATLAB that accepts as inputs

- **a speech signal (array)**
- **its sampling frequency (value)**
- **the length of the analysis window (value) (optional)**
- **the shape of the window (array) (optional)**
- **the duration separating the midpoints of two consecutive windows (optional)**

and produces as output a pitch contour corresponding to that signal. The pitch contour should take a value of 0 at unvoiced regions.

Refer to any book/publication/research paper of your choice and implement any algorithm of your choice. You should be able to explain the algorithm that you implement.

1. Read a speech file (`sample1.wav`) and extract pitch contour.

2. Plot the spectrogram and overlay the pitch contour on the spectrogram. (Make sure the axes are labelled appropriately or the overlay will not work)

3. Repeat the above for the speech file (`sp07.wav`). Do you observe any differences between the two cases?