

# Laboratory 7 — Pattern Recognition (EC-416)

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## Overview

Record Your own voice as an audio sample, try to record in a noise free environment so hat there is only one audio source (you). Extract the pitch from this audio sample and use that as an the input data for this laboratory experiment.

Segment out the different words from this audio sample by identifying those places where the pitch drops to a very low value. Also submit along the sample text with this experiment so that the actual words can be identified. Use these segmented words and their pitch values to compute the following distributions:

1. t-Distribution
2. F-Distribution
3. k-Distribution

Plot 3 different graphs for each distribution for the same audio sample.

## Data

Record your own audio sample (approx 120 seconds) and segment words from that to compute distribution.

## Submission Format

1. You can use either Python 3 or MATLAB/Octave to solve this assignment.
2. This is a programming assignment and nothing needs to be hand written.
3. The code of this assignment must be submitted as a project in a zip file with clear instructions on how to run the main file or it can even be a Jupyter Notebook with clear code + output.