

# CmpE 362 – Project 1

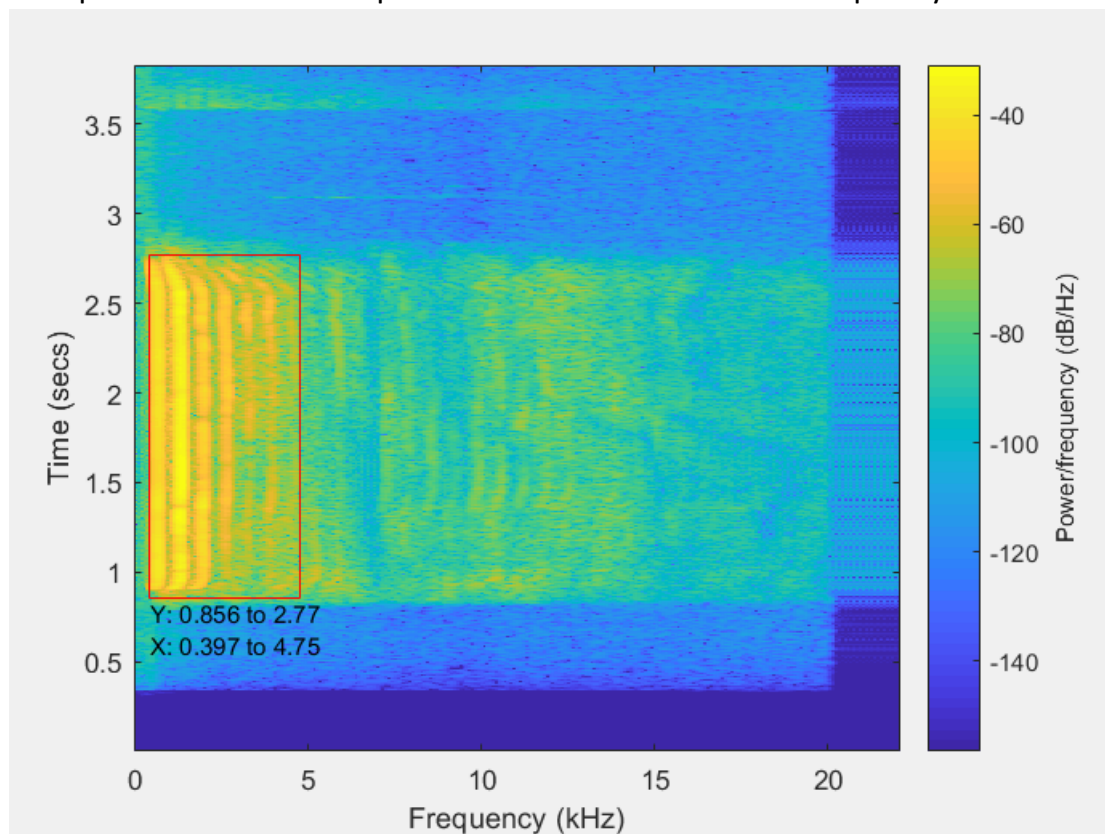
## 1) Problem Description:

This is the first time i see matlab and use it. Despite the questions are not so hard, firstly encountered languages cause a little bit stress most of the time. It 3 to 10 questions are easy functions to implement. Yet, first 2 questions are asked more difficult than the others. I spent lots of time than i expected to find neccessary functions. It was hard for me to solve first 2 questions.

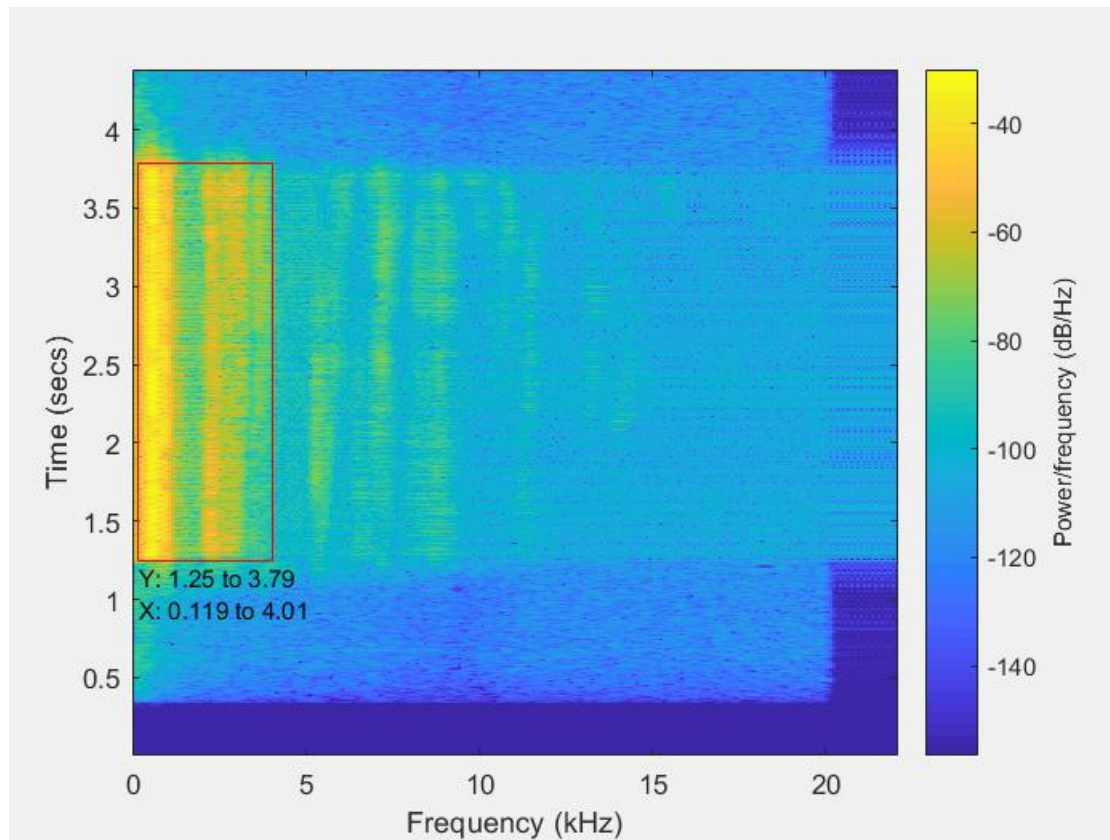
## 2) What i have learnt:

In the 3 – 10 questions, firstly i have learn how to use matlab. Get familiar with the Matlab concept and interface. While doing it doing aritmathic operations and plotting multiple figures are achieved. Normal and uniform distributions are remained again.

First problem is about keep track of voice with time and frequency domains.



This figure is an example of high frequency of voice. As it can be understood from the image, 4.75 kHz is the maximum i've achieved.



This one is low frequency model and marked at 3.79kHz.

I have learnt from these images that what is my frequency interval and how to use functions to see from matlab.

### 3) Challenges i have faced:

This is the first time i used matlab and it makes me uncomfortable too much. I need to spent a little bit time to get familiar with it. In the first question i tried too many syntax to find frequency domain. Because of i don't know how my voice spectrum look like, i always think that this is not the answer. Even now i am thinking in that way also.

To find the function about plotting, finding peak was really hard for me. I look all over the internet and cannot find a good solution. In spectrogram,(1st question) i couldn't find peak values.

#### **4) Pros respected to another languages:**

Less syntax solve the problem easily.

Already implemented functions like plot, arithmetic(sin,cos,...) makes the language efficient.

For calculating mathematic, this language seems really nice.

#### **5) Cons respected to another languages:**

The need to think all variables as matrixes is confusing.