

## ASSIGNMENT – 1

Course : DSAA, Monsoon 2017 @ IIITS

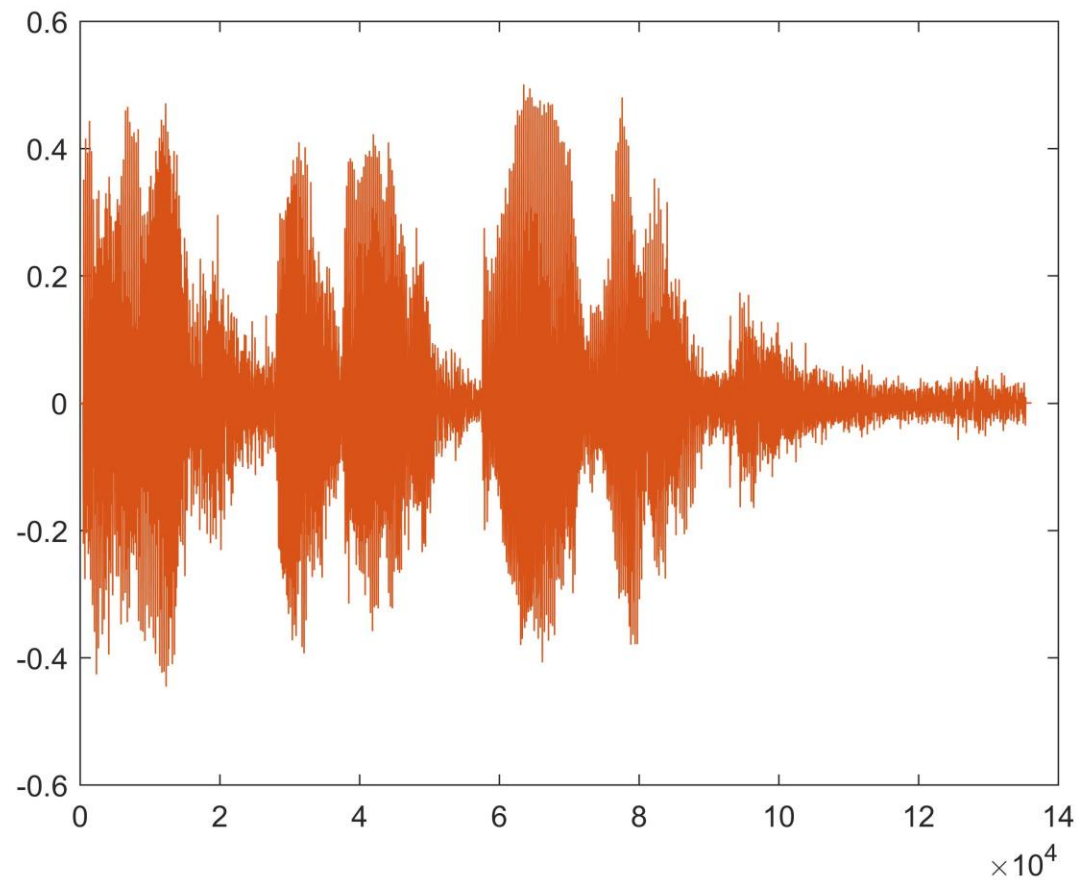
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1. Recording an audio file using windows Voice recorder . The audio is saved in .m4a format . Then we need to read the file and plot the signal.

Commands used:

- (i) Name = audioread(filename);
- (ii) plot(Name)
- (iii) print -r500 -djpeg 'file\_name'



**Observation:**

- audioread(filename) function can read audio file of any extension
- Plot() function plots the signal wave of audio file

2. Reading an image file into matlab and converting it to grayscale and displaying it's histogram image.

Commands used:

- (i) Name = imread(filename);
- (ii) Img = rgb2gray(Name);
- (iii) imhist(Img);
- (iv) print -r500 -djpeg 'file\_name'

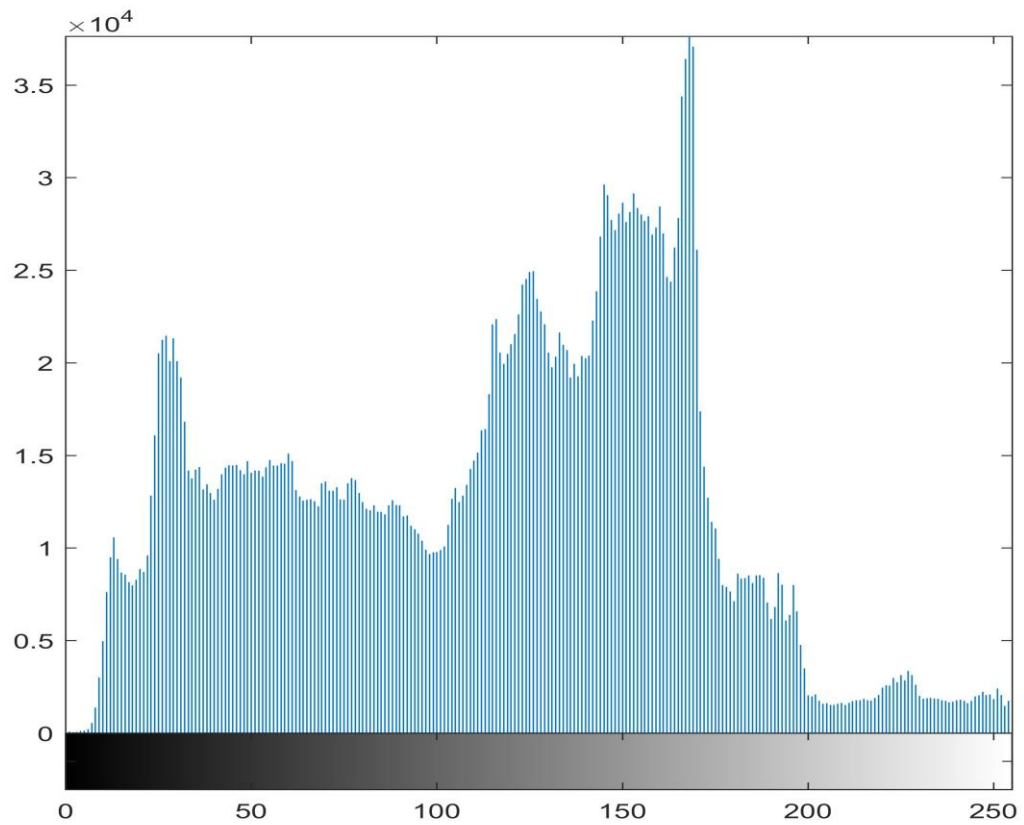
**ORIGINAL IMAGE:**



GRAYSCALE IMAGE:



## HISTOGRAM:



### Observation:

- `imread(filename)` reads image file and stores in some variable
- Now we have to convert the image into grayscale using command `rgb2gray()`
- Now plot the histogram of the grayscale image using command `imhist()`

### What I have learnt:

Learning how to use matlab and basic commands for image and audio manipulation in matlab.