Spectrum Club,

College of Engineering and Technology

Bhubaneswar

www.spectrumcet.com

Dear Intern,

Welcome to **MATLAB Task 2. .**

**Technology Stack to be used:**

I am expecting that all of you must have install the MATLAB software.

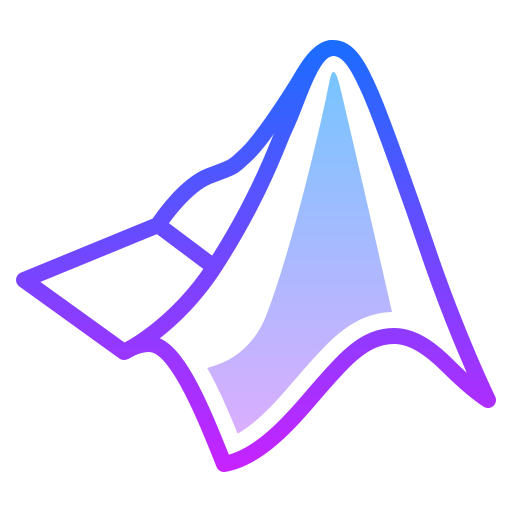
For this task you need to install an extra signal processing toolbox(in some versions of MATLAB it is pre installed).

**Stage 0:**

**Tasks:**

**Write a program in MATLAB that will modulate and de-modulate a signal and plot it accordingly.**

Follow the steps

1. First ask the user to start the recording, and save that recording in a file.\*audio must be of 10 sec.
2. Then use that file and a carrier signal to modulate .\*take the Carrier signal as per your wish.
3. After modulating it de-modulate the modulated signal to get the same input signal .
4. Plot 4 signal :- I. Input signal(your voice)

II. Carrier signal

III. Modulated signal

VI. De-modulated signal

1. And after a pause of 5 sec play the demodulated signal in the background.

**RESOURCES: -**

The resources provided here are YouTube tutorials for the above tasks. If any case of any confusion, do Google once and search around or ask in the forum, but do understand the concepts behind the functions properly.

**Video tutorials**

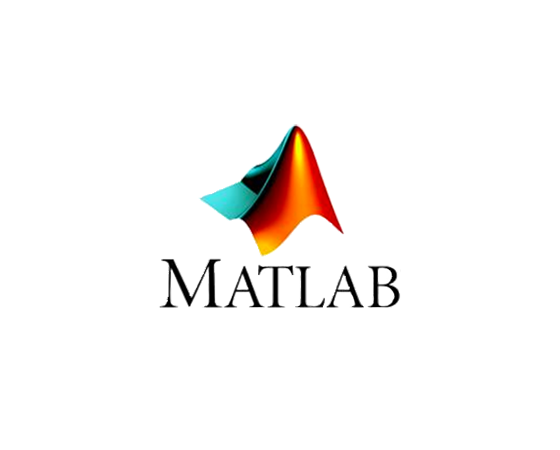
**(Installing the toolbox Tutorial):-**  
 **<https://www.youtube.com/watch?v=ft9eeK-bIAk>**

**(Modulating and de-modulating):-**

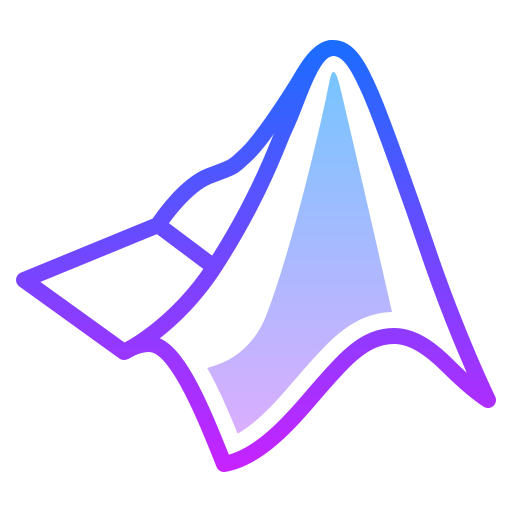
**<https://www.youtube.com/watch?v=iOoQeMA_Hic>** (amplitude modulation and de-modulation)

**<https://www.youtube.com/watch?v=t06MYwVjXEQ&t=18s>**

(frequency modulation and de-modulation)

That’s it for from my side guys I hope you all have learnt a lot in this season, there are n number of possibilities in MATLAB so keep learning and keep practicing .

Good luck & Thank you…!!!

WARM REGARDS,

**SPECTRUM, CET-B**