Rajshahi University of Engineering & Technology

Course Title: Sessional Based on CSE 4103

Course No: CSE 4104

Report No: 02

Submitted to:

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<u>Problem Statement:</u> Plot digital signal, perform flip and convolution operation of the signal, and denoise the signal.

Objectives:

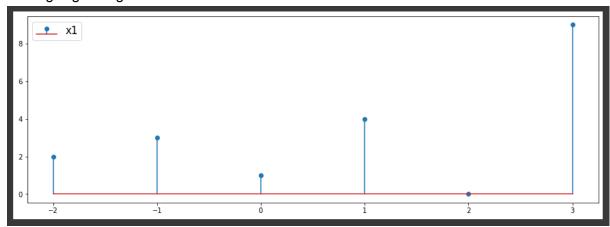
- 1. Plotting digital signal
- 2. Flipping digital signal
- 3. Perform convolution operation on the signal
- 4. Signal denoising
- 5. Signal filtering
- 6. Creating noiseless signal

Source Code:

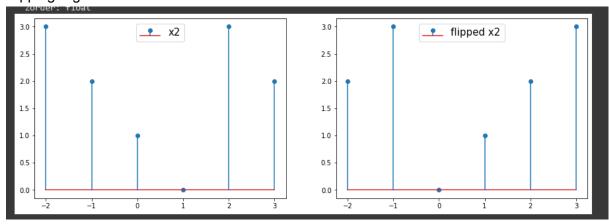
 $\frac{https://colab.research.google.com/drive/10tMWijLcmqZlpc-IZRhGhlgPBP9qZFdX?usp=sharing}{1}$

Output Images:

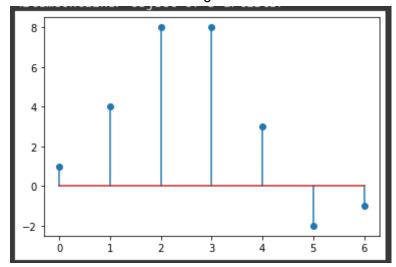
1. Plotting Digital Signal



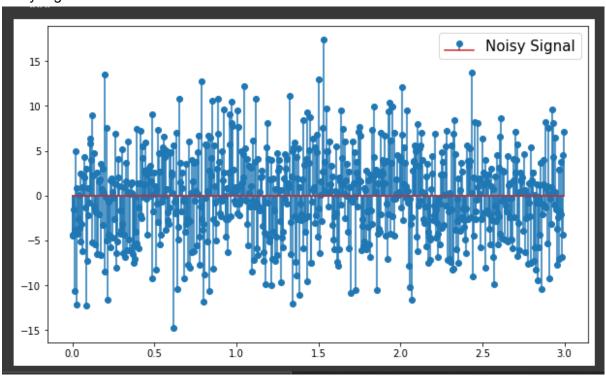
2. Flipping Signal



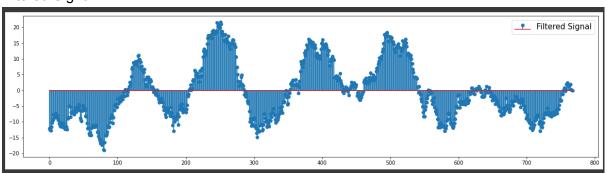
3. Perform Convolution on the Signal



4. Noisy Signal



5. Filtered Signal



<u>Conclusion and Discussion:</u> In this lab task, I have learned to plot digital signals, and perform flip and convolution operations on the signal. I have also learned to create a noiseless signal and denoising a signal by convolution.