

ECE/EEE F311 Communication Systems (First Semester 2023-2024)
Lab-1 (Tuesday) (22-08-2023)

Objectives

In this task, the objective is to study signals in time and frequency representation.

Task 1

Main functions used: `fft`, `fftshift`, `abs`, `linspace`, `hold all`, `hold on`, `figure`, `plot`.

- (a) Plot $x_1(t) = \sin(20\pi t)$ and $|X_1(f)|$.
- (b) Plot $x_2(t) = 20\text{sinc}(20\pi t)$ and $|X_2(f)|$.

Task 2

- Download any audio clip <https://pixabay.com/sound-effects/search/wav/>
- Save the audio clip in the working folder.
- Use functions `audioread` and `sound`.
- Plot the time domain and spectrum of audio clip