

Birla Institute of Technology & Science, Pilani, Rajasthan
First Semester 2025-2026
Lab-2 Real Time Transmission

Course: ECE/EEE F311 Communication Systems
Instructor-in-Charge: Prof. Syed Mohammad Zafaruddin

Week 2: 11-08-2025

Real Time Transmission

- You listen various tones (dial, ringing, busy) using a telephone. These tones are generated with a combination of sine wave of various frequency. The tone plan is based on ITU-T Standard recommendation. The dial tone is a continuous tone of the addition of the frequencies 350 and 440 Hz. The ringing tone comprises frequencies of 440 and 480 Hz and a cadence of 2 seconds ON and 4 seconds OFF. The busy tone has frequency components of 480 and 620 Hz and a cadence of one half second ON and one half second OFF. Use this tone plan to generate **BUSY TONE/DIAL TONE**. Use a speaker to listen BUSY/DIAL TONE by applying command playsound. While generating the sinewave, mind its amplitude (take 0.1 volt).
pip install playsound
- Plot time-domain and frequency domain of the above signals for 30 second duration.

Project Task

Update the week 1 and week 2 tasks as per the template given in the instruction.