

EE2025

Transmission using sound (FDM Technique)

Progress Report

Team Details:

1	Bandi Sai Laxman	EE18BTECH11049
2	Varun Sankar Moparthi	EE18BTECH11030

Faculty Advisor:

Dr.Shashank Vadetka

Project Description:

Communication between two (or) multiple machines with any of the efficient modulation schemes, to multiple users, using Frequency division multiplexing. It's a technique by which the total bandwidth available in a medium is divided into a series of non-overlapping frequency bands, each of which is used to carry a separate signal.

We also plan on doing other more Multiplexing techniques to multiple users too (if time permits) .

Progress :

- Similar to what was done in previous image assignments. We converted the text file into binary using ASCII/Unicode and then used similar modulation techniques to modulate the array of binary data.
- We added random noise and then demodulated it into the PC itself For implementing the demodulated python script too.

- And then we tried transmitting random waves(sinusoids) using Pyaudio to check whether the data transmission is perfect - from one PC to another .
- Now we're trying to send the modulated signal through Pyaudio to another PC to demodulate it, but we had some syncing issues.
- We are checking for references of FDM .