

Advanced Communication

Spring 93-94
Prof. Amindavar

Project #1

Write a function (name it as `Transmitter.m`) that generates random data and modulate them by one of the MPSK, QAM, 16ASK and 32ASK forms.

Plot the constellations.

Now pass modulated data through an AWGN and plot the BER graphs for different values of $\frac{E_s}{N_0}$ (write `Chnl.m` and `Receiver.m` for transmission and detection part respectively.)

Plot the constellation of noisy data.

For the 16ASK and 32ASK, refer to DVBS-2 standard and use the constellation that is used in it.

- ✓ Write a complete descriptive report of your simulations.
- ✓ Comment all your functions as much as possible.

Due : 17 Farvardin 94 (there will be no extension)