

Department of Electronics and Electrical Engineering
Indian Institute of Technology Guwahati
Lab Sheet 6 (Baseband Data Transmission)

EE333: Communication and DSP Laboratory

March 2, 2021

1) Using baseband processing, obtain the BER (bit error rate) vs. SNR plots for

- BPSK
- QPSK
- 8-PSK
- 16-QAM
- 64-QAM.

by averaging over a 10,000 transmitted symbols each. We will make the sample code for BPSK available.

- 2) Convert an image to a stream of bits, and transmit that stream of bits via different modulation schemes discussed in the first question. Retrieve the image and plot the PSNR as a function of the data SNR for different transmission schemes.
- 3) Repeat Question 2, but now use an audio file, and try calculating the SNR of recovered signal.