

HOMEWORK-5

Note: Write your Name & ID. Example: Student_Name_ID:1234567890 in all figure's titles

1. Write MATLAB code for ASK modulation. Take digital message signal bit stream like **$\mathbf{b} = [0\ 1\ 1\ 0\ 1\ 1\ 1\ 0\ 1\ 1\ 0\ 1]$** from user, and Carrier Signal is **$\mathbf{C(t)} = \sin(2 \cdot \pi \cdot f_c \cdot t)$** and **$F_c = 4$** .
2. Write MATLAB code for FSK modulation. Take digital message signal bit stream like **$\mathbf{b} = [0\ 1\ 1\ 0\ 1\ 1\ 1\ 0\ 1\ 1\ 0\ 1]$** from user, and Carrier Signal is **$\mathbf{C(t)} = \sin(2 \cdot \pi \cdot f_c \cdot t)$** and **$F_c = 3$** .
3. Write MATLAB code for PSK modulation. Take digital message signal bit stream like **$\mathbf{b} = [0\ 1\ 1\ 0\ 1\ 0\ 1\ 0\ 1\ 1\ 1\ 0\ 1]$** from user, and Carrier Signal is **$\mathbf{C(t)} = \sin(2 \cdot \pi \cdot f_c \cdot t)$** and **$F_c = 2$** . And phase deviation **$k_p = \pi/2$** .