Digital Communication: UE18EC352

VI Sem ECE, PESU: Jan-May 2021

Experiment-1: Delta Modulation

Steps:

1. Generate the signal

$$x(t) = \begin{cases} \sin 2\pi t - \cos 4\pi t & 0 \leq t \leq 2 \\ 0 & \text{elsewhere} \end{cases}$$

   (Set the time resolution $tr = 0.001$, for generating and plotting $x(t)$)

2. Perform delta modulation of $x(t)$ with $T_s = 0.01$ sec and $\delta = 0.1$.
3. Plot $x(t)$ and the delta modulated signal, and compare.
4. Repeat for the following cases and state your inference:
   (a) $T_s = 0.01$ and $\delta = 0.2$
   (b) $T_s = 0.02$ and $\delta = 0.3$
   (c) $T_s = 0.02$ and $\delta = 0.5$