

Base Band Communication – Prof. ArunPachaiKannu, IIT Madras

Relevant course: Digital Communication Techniques

Relevant department: ECE,EEE

Pre requisite: Fourier analysis, Shannon sampling theorem

Course outline:

Characteristics of Signals and Frequency domain representations

- Linear Modulation
- Power Spectral Density of linearly modulated signals
- Signaling in Bandlimited channels
- Inter-symbol interference (ISI)
- Nyquist criterion for ISI avoidance and Pulse Shaping
- Timing Errors and Eye Pattern
- M-ary Constellations and Power Efficiency
- Nonlinear modulation

- Modulation with memory