Written by Administrator Saturday, 07 November 2009 07:15 -

Subject Code

:

	06EC61
IA Marks	

:

25

No. of Lecture Hrs/ Week

:

04

Exam Hrs

Written by Administrator Saturday, 07 November 2009 07:15 -

03

:

Total no. of Lecture Hrs.

:

52

Exam Marks

:

100

PART - A

Unit - 1

Basic signal processing operations in digital communication. Sampling Principles: Sam pling Theorem, Quadrature sampling of Band pass signal, Practical aspects of sampling and signal recovery.

Written by Administrator Saturday, 07 November 2009 07:15 -

7 Hours

Unit - 2

PAM, TDM. Waveform Coding Techniques, PCM, Quantization noise and SNR, robust quantization.

7 Hours

Unit - 3

DPCM, DM, applications. Base-Band Shaping for Data Transmission, Discrete PAM signals, power spectra of discrete PAM signals.

6 Hours

Unit - 4

ISI, Nyquist's criterion for distortion less base-band binary transmission, correlative coding , eye pattern, base-band M-ary PAM systems, adaptive equalization for data transmission.

6 Hours

PART - B

Digital Modulation Techniques: Digital Modulation formats, Coherent binary modulation techniques, Coherent quadrature modulation techniques. No n-coherent binary modulation techniques.

7 Hours

Detection and estimation, Model of DCS, Gram-Schmidt Orthogonalization procedure, geometric interpretation of signals, response of bank of correlators to noisy input.

6 Hours

Detection of known signals in noise, , correlation receiver, matched filter receiver, detection of signals with unknown phase in noise.

6 Hours

Spread Spectrum Modulation: Pseudo noise sequences, notion of spread spectrum, direct sequence spread spectrum, coherent binary PSK frequency hop spread spectrum,

Written by Administrator Saturday, 07 November 2009 07:15 -

applications.

7 Hours

Text Book:

1. Simon Haykin, **Digital communications**, JohnWiley,2003.

Reference Books:

1. **Digital and analog communication systems-** K.Sam Shanmugam, John Wiley, 1996. 2.Simon Haykin, An introduction to Analog and Digital Communication, John Wiley, 2003.

2. Digital communications - Bernard SklarPearson education 2007.