Module 4

Syllabus : Concept of Binary and M-ary transmission, Coherent and Non- Coherent reception, Power spectral density of Pass-band signal, Signal space Representation and Euclidian distance.

Pass Band Amplitude modulation and Demodulation: BASK, M-ary PAM, Digital Phase Modulation and Demodulation: BPSK, OQPSK, QPSK, M-ary PSK, QAM, Digital Frequency Modulation and Demodulation: BFSK, MSK, M-ary FSK, Introduction to spread spectrum modulation, OFDM

Comparison of all techniques based on Spectral efficiency, Power efficiency, Probability of error in detection.

Syllabus : Need of channel encoding, Concept of error detection and correction, Forward error correction, Linear block codes: Hamming distance, Hamming weight, Systematic codes, Syndrome testing.

Module 5

Syllabus : Cyclic codes : Generator polynomial for Cyclic codes, Systematic cyclic codes, Feedback shift register for Polynomial division.

Module 5

Syllabus : Convolution code : Convolution encoder, Impulse response of encoder, State diagram, Tree diagram, Trellis diagram representations.

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