

Department: Electronics and Communication Engineering

KEC651- DIGITAL COMMUNICATION LAB

LIST OF EXPERIMENT

SUGGESTIVE LIST OF EXPERIMENTS

Part A

1. To study Eye diagram patterns of various digital pulses.
2. To study the inter-symbol interference.
3. To study the generation of Unipolar RZ & NRZ Line Coding.
4. To study the generation of Polar RZ & NRZ Line Coding.
5. To study the generation of Bipolar RZ & NRZ Line Coding.
6. Implementation and analysis of BASK modulation and demodulation
7. Implementation and analysis of BFSK modulation and demodulation
8. Implementation and analysis of BPSK modulation and demodulation. (*Through Virtual Lab*)
9. Implementation and analysis of QPSK modulation and demodulation. (*Through Virtual Lab*)
10. To simulate M-ary Phase shift keying technique using MATLAB.
11. To study the generation and detection of DPSK using MATLAB.
12. Implementation and analysis of Delta modulation and demodulation.
13. Implementation and analysis of DSSS Modulation, Demodulation & BER measurement.
14. Implementation and analysis of FHSS Modulation, Demodulation & BER measurement.
15. To study encoding and decoding of Linear Block Codes
16. To study the working of a Convolution encoder.

Part B

17. To study simple dipole (half wavelength) antennas and to calculate beam-width, front-back ratio, and gain of the antenna.
18. To study folded dipole antennas and to calculate beam-width, front / back ratio, and gain of the antenna.
19. To study (half wavelength) phase array end-fire antenna and to calculate beam-width, front-back ratio, and gain of the antenna.
20. To study broadside array antenna and to calculate beam-width, front / back ratio, and gain of the antenna.

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LIST OF EQUIPMENT

SUBJECT CODE OF THE LAB: KEC651

Name of the Lab : COMMUNICATION ENGINEERING LAB

S. No.	Name of Equipment
1	CRO
2	FUNCTION GENERATOR
3	POWER SUPPLY
4	KITS; (To perform different types of MOD / DEMOD and line coding)
5	ANTENNA TRAN. KIT