ADVANCED COMMUNICATION LABORATORY

Course Code: 13EC2118

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Pre requisites: Communication Theory

Course Objectives:

1. To verify the function of digital modulation and multiplexing techniques using Simulink for different channel characteristics.

Course Outcomes:

1. After the completion of the course, student will have hands-on experience that enable the design of digital communication links from transmitter to the receiver in single or multi-channel configurations.

List of Experiments

1. Generation of Pulse Modulated signals: PAM, PWM and PPM
2. Time division Multiplexing
3. Generation of (7, 4) Hamming code and Error detection in different channels.
4. Generation and detection of ASK, FSK and PSK signals
5. Generation and detection of DPSK Signals
6. Generation and detection of QPSK Signals
7. Generation and detection of QAM signals
8. Generation and detection of M-aryASK, FSK and PSK signals
9. Generation and detection of MSK signal
10. Experimentally compare different forms of BPSK and QPSK and analyze their spectrum with spectrum analyzer.
11. Generation and Detection of ASK, FSK and PSK with (7, 4) hamming code
12. Generation of turbo code.
13. Obtain Gaussian, Rician PDF and CDF with PSK modulation.
14. Obtain Rayleigh PDF and CDF with PSK modulation.

*Note: Any **TEN** of the above experiments are to be conducted.*