



EE452-Communication 1 Laboratory (Required Course)

Code and Name: EE452 Communication 1 Laboratory

Credit Hours: 1 (Practical:2)

Textbook:

- Lab manual Given by University

Other References:

- Communication Systems, Simon Haykin and Michael Moher, Fifth Edition, WILEY, 2009.

Course Description:

In this lab course the student will get hands-on experience to design, construct and analyze different Communication circuits. Student will learn, Analog Communications, AM, DSB, SSB and FM modulators and demodulators. Digital Communications, PAM, PCM, DM, ASK and Time-Division Multiplexing. Reception of AM and FM signals. During this course the student will learn hand on experience on simulation software, Power Meter, Oscilloscope, frequency Counter, Functional Generators & Spectrum Analyzer.

Pre-requisites: EE351

Co-requisites: None

Course Learning Outcomes:

With relation to ABET Student Outcomes (SOs: 1-7)

1. Apply theoretical concepts of AM and FM modulation as lab Experiments. (1)
2. Assemble blocks of communication system to form circuit. (6)
3. Put results as graphs or tabular forms. (3)
4. Apply basic concepts of communications. (1)
5. Instrument operation. (6)
6. Lab procedure. (6)

Topics to be covered:

- Introduction to Communication Lab.
- Ex1: Introduction to spectral analysis.
- Ex 2: The Generation of AM signals.
- Ex 3: Reception of AM signals.
- Ex4: Percentage Modulation of AM signals.
- Ex 5: Double Sideband Modulation (DSB).
- Ex 6: Generation of Frequency Modulation (FM).
- Ex. 7: Reception of FM Signal.
- Ex8: Pulse Amplitude Modulation (PAM).

Grading Policy: check

The grading for the course are 60% coursework and 40% Final Exam. The coursework consists of one Midterm Exam, where the midterm exam is worth 20%. It also includes quizzes and lab reports for the remaining 40% that is modified by the course instructor.

