

CU5161 COMMUNICATION SYSTEMS LABORATORY

DETAILED SYLLABUS

OBJECTIVES

1. To acquire knowledge on Transmission line and S- parameter estimation of microwave devices.
2. To introduce the basics of Microstrip Patch Antenna and its analysis.
3. To study & measure the performance of digital communication systems.
4. To provide a comprehensive knowledge of Wireless Communication.
5. To learn about the design of digital filter and its adaptive filtering algorithms.

LIST OF EXPERIMENTS

USE NETWORK ANALYSER FOR THE FOLLOWING EXPERIMENTS

1. Measurement of transmission line parameters.
2. S-parameter estimation of Microwave devices.
3. Design and testing of a Microstrip coupler.
4. Characteristics of Microstrip patch antenna.

USE APPROPRIATE SIMULATION TOOLS FOR THE FOLLOWING EXPERIMENTS

1. Generation & detection of binary digital modulation techniques.
2. Spread Spectrum communication system-Pseudo random binary sequence generation Baseband DSSS.
3. Digital Filter Design
4. Performance evaluation of simulated CDMA system
5. Channel equalizer design (LMS, RLS)
6. Antenna Radiation Pattern measurement