

## **Advanced Communication Laboratory**

**EC8761(ODD Semester)**

**Regulations: R17**

### **List of experiments recommended as per Anna University**

#### **OPTICAL EXPERIMENTS**

1. Measurement of connector, bending and fiber attenuation losses.
2. Numerical Aperture and Mode Characteristics of Fibers.
3. DC Characteristics of LED and PIN Photo diode.
4. Fiber optic Analog and Digital Link Characterization - frequency response (analog), eye diagram and BER (digital)

#### **WIRELESS COMMUNICATION EXPERIMENTS**

1. Wireless Channel Simulation including fading and Doppler effects
2. Simulation of Channel Estimation, Synchronization & Equalization techniques
3. Analysing Impact of Pulse Shaping and Matched Filtering using Software Defined Radios
4. OFDM Signal Transmission and Reception using Software Defined Radios

#### **MICROWAVE EXPERIMENTS**

1. VSWR and Impedance Measurement and Impedance Matching
2. Characterization of Directional Couplers, Isolators, Circulators
3. Gunn Diode Characteristics
4. Microwave IC – Filter Characteristics

### **List of experiments beyond the Anna University**

1. Determine Gain and Radiation pattern of Horn antenna using microwave bench setup
2. Determine power measurement using thermocouple mount and Klystron.
3. Using microwave bench set up find direct and indirect frequency.

**Estd - 2001**