OPTICAL AND MICROWAVE LABORATORY

Laboratory In-charge : Ms. A. K. Thasleem Sulthana AP/ECE

Technical supporting staff: Ms. A.Rashmi Joyline

Snapshot of Optical and Microwave Laboratory

Area of the laboratory: 95.12 Sq.m

Major Equipment:

- Fiber Optic Analog Transmitter & Receiver Trainer
- Optical Fiber Transceiver Trainer and Laser Communication Module
- LED Trainer, PD Trainer and Power Meter
- Microwave Training Kit (Klystron Power Supply)
- Optical Fiber Trainer Kit, Klystron Tube, Gunn Power Supply and Oscillator
- PIN Modulator, Isolator and Attenuator
- Slotted Section and Detector Mount, Termination and Movable Short
- Horn Antenna, H-Plane Tee, Magic Tee and E-Plane Tee
- VSWR Meter, Directional Coupler and Waveguide Stand
- Dual Channel oscilloscope Circulator
- Variable Attenuator and Klystron Mount
- Connectorisation and Splicing Training System

List of Experiments:

- DC Characteristics of LED and PIN Photo diode and Mode Characteristics of Fibers
- Measurement of connector and bending losses
- Fiber optic Analog and Digital Link – Frequency response and eye diagram
- Numerical Aperture determination and Attenuation Measurement in Fibers
- Basic microwave parameter measurement such as VSWR, Frequency and Wavelength
- Characteristics of Reflex klystron or Gunn diode and Directional Coupler
- Radiation Pattern of Horn Antenna
- Measurement of S- Parameter of microwave component, attenuation and power

Beyond the syllabus experiments:

- Splicing and Connectorization
- S-parameter Estimation of Microwave devices

Utilization of the laboratory:

- Optical And Microwave Laboratory for IV year ECE/VII sem