



## **DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

### **MICROWAVE AND OPTICAL LABORATORY**

**Lab incharge : Mr.S.Pradeep**

**Lab instructor : Mr.E.Ramesh**

#### **Overview:**

Microwave transmission plays a vital role in radio wave transmission like Satellite communication, Radio astronomy. The main objective of this lab is to gain the knowledge regarding the transmission and reception of microwave signals, to know the power distribution among the microwave components and also the students learn how the unknown impedance and gain of an antenna is calculated. Horn and Parabolic antenna also used in laboratory for transmitting and receiving the microwave signals. Optical experiments teach the students about the light transmission in the cable. Link A, B, E kits are used for digital transmission.

**The area of laboratory is 88.28 Sq.m**

#### **Major equipments:**

- Klystron power supply
- Klystron mount with tube
- Gunn power supply & Gunn Oscillator
- Solid state VSWR meter
- Detector mounts & Matched termination
- Frequency meter (Micro Type)
- Pyramidal horn antenna



- E, H, MAGIC plane Tee
- Fiber link A1 low cost fiber optics trainer kit with supply
- Fiber link B fiber optic communication trainer kit with supply
- Fiber optic E fiber optic trainer kit based on laser diode and glass fiber with supply
- AL-DL analog and digital link for plastic fiber (AL-DL-1) (AL- DL-2)
- CRO
- Digital CRO
- Function generator
- Regulated power supply
- Decade resistance box
- Decade capacitance box
- Decade inductance box
- Analog and digital multimeter's
- Digital voltmeters



Snapshot of microwave and optical laboratory