



**DHIRAJLAL GANDHI COLLEGE OF TECHNOLOGY**  
**DEPARTMENT OF ECE**

**ADVANCED COMMUNICATION LABORATORY**

The Advanced Communication Laboratory is used by our under graduate students to perform practical pertaining to the study of the topics Optical Communication and Microwave Engineering Theory Course. This lab provides the students with an enriching hands-on experience with concepts and in-depth knowledge of Fiber Optical domain and Microwave domain. The laboratory is equipped with state -of -art Fiber Optic Trainer Kits and microwave bench setup. The student performs experiments to study the digital optical link, understand the working of components of an Optical Communication System, characteristics of Optical Sources (LED), Optical Detectors (LD & APD) and Optical Fibers (SM & MM), concepts of Optical Multiplexing and characteristics of types of fibres SMF, DSF, DCF etc. Microwave lab is fully equipped with latest microwave benches, Microwave Power meter and Advanced microwave trainer kit.

**EQUIPMENTS**

**MICROWAVE EQUIPMENTS**

- ❖ Reflex Klystron Power Supply
- ❖ Klystron Mount with Tube
- ❖ Gunn Power Supply
- ❖ PIN Modulator
- ❖ Isolator
- ❖ Frequency Meter
- ❖ Fixed Attenuator and Variable Attenuator 20dB
- ❖ Slotted Line Section with probe
- ❖ Detector Mount
- ❖ Termination
- ❖ Movable short
- ❖ Horn Antenna
- ❖ Y circulator, Magic Tee, E-Plane Tee and H-Plane Tee
- ❖ Microwave Power Meter
- ❖ Directional Coupler

- ❖ Slide Screw tuner
- ❖ Power meter
- ❖ VSWR Meter
- ❖ Cathode Ray Oscilloscope

### **OPTICAL EQUIPMENTS**

- ❖ Optical Power Source (850nm, 1310nm)
- ❖ Fibre Optic Trainer Kit
- ❖ Laser Module
- ❖ PIN Diode and LED Trainer Kit
- ❖ Optic Power Meter