OPTICAL FIBRE / LASER / IR(INFRA RED) /ULTRASONIC BASED – COMMUNICATION PROJECTS:

OPTICAL FIBRE / LASER VOICE COMMUNICATION: The one way/twoway voice communication system using optical fibre as mode. One can speak from one end and listen the voice at other end using IR as transmitter and photo-diode as receiver or vice versa.

OPTICAL FIBER / LASER BASED VOICE AND DATA COMMUNICATION

The one way voice and DTMF data communication system using optical fibre as mode. One can speak or send data tone from one end and listen the voice at other end using IR as transmitter and photo-diode as receiver and simultaneously see the data output at seven segment display.

OPTICAL FIBRE/LASER BASED VOICE ENCRIPTION AND DECRIPTION:

The prerecorded voice can be encrypted and sent through optical fibre at the other end. The reciever end will decript the same voice and playback to the original one.

OPTICAL FIBRE/LASER BASED APPLIANCE SWITCHING SYSTEM: A Multiple or single device control circuit can be operated with this circuit.

OPTICAL FIBRE/LASER BASED DC/AC MOTOR SPEED CONTROL : A PWM technique is used to operate the dc or ac motor at a distance using IR or Laser as transmitting medium.

IR REMOTE TV/ HEADPHONES: - It enables you to listen sound of TV without disturbing others. It has a transmitter and receiver antenna.(15-168)

IR OBJECT COUNTER USING CALCULATOR: - A simple eight-digit counter can be made by this using any calculator with small circuit connected to it.

IR REMOTE CONTROL SWITCH: A single device can be remotely operated by this system. A transmitter will transmit the IR frequency 38kHz and a matching receiver will receive the signal to switch a relay to control device.

IR REMOTE CONTROL SWITCH BOARD: Four electrical device can be remotely operated by this system. A transmitter with encoder circuit will transmit the IR frequency 38kHz and a matching receiver will receive the signal to switch the relays to control devices.

IR 'NO SMOKING' WARNER: It will give warning in audible form at no smoking zone. It may sense the smoke and give audible indication.

IR / ULTRASONIC WIRELESS HOME SECURITY SYSTEM: It checks the unauthorized entry through its IR or ultrasonic sensors. Or even microphone sensor will activate the RF transmitter to send a signal at a distance.

IR/LASER NON-CONTACT DC/STEPPER MOTOR SPEED CONTROL: The motor (dc/stepper) speed can be controlled remotely using IR transmitter / receiver circuit.

IR AUTOMATIC ROOM LIGHT CONTROLLER: An entry and exit sensors using infrared will operate the connected light to save electricity. The digital up/down counter will display the number of persons inside the hall and if nobody is there, the lights will go 'off'.

ULTRASONIC MOTION DETECTOR: Any motion in and around ultrasonic sensing area will activate the circuit and alarm will warn.

ULTRASONIC CAR REVERSE SENSOR/OBJECT DETECTOR: The project can be placed on the back or front of car. It will give warning indication if the distance from wall decreases to a certain level. It can be used as motion sensing alarm.

ULTRASONIC RADAR : It moves in 360 degree circular motion and detect the object in the near by area and gives alarm indication.

ULTRASONIC GUN: It detect the object and fire instantly with electromagnetic gun connected with it.

ULTRASONIC OBJECT COUNTER: It counts the number of persons going through its area.