**Mini Project Problem statement**:-

**Automatic Room Light System**

Description: This project presents the design, construction and implementation of microcontroller-based automatic room light controller with bidirectional counter. The evolutionary trend in the light controller operations and design are briefly stated. Also the project design, its control switching through an infrared relay system in addition to the software development program using Embedded C language are illustrated with a flowchart. The system hardware design (circuitry) interface with the microcontroller (Arduino uno), the infrared sensor and other devices used is illustrated alongside the operational block diagrams. Finally, the design result and subsequent implementation as achieved was tested and certified functional.

MATERIALS USED FOR THE PROJECT :

1.Arduino Uno

2.LED

3.IR Sensor

4.Wires

5.Power Source

FLOWCHART:

If a person comes across the infrared senor.

The sensor sends digital signals to the Arduino(1 or HIGH as OUTPUT)

Else if there is not person then the sensor returns (0 or LOW)

If the sensor does not return 0 or LOW as output then the led does not turn on or turns off.

IF the signal is 1 the Arduino send signal to turn the led on.

CODE FOR THE WORKING OF CIRCUIT

int led=3;

int IR\_Sensor=5;

int peoplecount=0;

void setup() {

  // put your setup code here, to run once:

  pinMode(led,OUTPUT);

  pinMode(IR\_Sensor,INPUT);

  Serial.begin(9600);

}

void loop() {

  // put your main code here, to run repeatedly:

  int read=digitalRead(IR\_Sensor);

  Serial.println(read);

  if(read==HIGH)

  {

    digitalWrite(led,HIGH);

peoplecount++;

Serial.println(“

  }

  else

  {

    digitalWrite(led,LOW);

  }

}

CIRCUIT DESIGN:

