

#### ASSIGNMENT-4

AIM: Develop a smart light system.

PROBLEM STATEMENT: Develop a smart light system using source H/w platform like arduino & some sensors

THEORY:

• ARDUINO:

- It is an open-source electronics platform based on easy-to-use HW & SW
- Arduino boards are able to read i/p's lights & sensors finger on button, etc.

• COMPONENTS:

i. LDR:

- Light dependant resistor
- Resistivity is a func<sup>n</sup> of incident electromagnetic radia<sup>n</sup>
- light sensitive device

ii. Arduino:

Used to on/off the bulb light

iii. 4.7k resistor

iv. Bread board

v. Connecting wires

vi. Bulb LED



#### • CONNECTIONS:

- Arduino 3rd pin connected to LED bulb
- GND connected to LED -ve thr.  $4.7k$
- A0 pin connected to LDR other end
- GND is connected to LDR other end with  $4.7k$

#### • ADVANTAGES:

- Ready to use
- Effortless func<sup>n</sup>
- Large community
- examples of codes

#### • DISADVANTAGES:

- Structure
- cost

#### CONCLUSION:

Thus we have developed "Smart light system"