

43320.

## Assignment 4

Aim - Develop a Smart light System

Problem Statement - Develop a smart light system using open source hardware platform like arduino and some sensors.

Theory -

\* Arduino

It is an open source electronics platform based on easy to use hardware & software

Arduino boards are able to read inputs light on sensors, a finger on button etc

\* Components

1) LDR

Light Dependent Resistor

It is device whose resistivity is a function of the incident electromagnetic radiation

Hence, they are light sensitive device.



## 2) Arduino

It is used to on/off the bulb/light

## 3) 4.7 K resistor

## 4) Breadboard

## 5) Connectivity Wires

## 6) Bulb / LED

## Advantages of Arduino

- 1) Arduino 3<sup>rd</sup> pin connected to LED / bulb +ve
- 2) Arduino GND prevents abrupt changes
- 3) Effortless function
- 4) Large community

## Disadvantages of Arduino

- 1) Structure
- 2) Cost

Conclusion - In this way, I have developed "Smart light system"