BVRIT HYDERABAD
College of Engineering for Women
Department of Information Technology
Mini Project - Academic Year 2022-23

TEAM 7

SMART STREET LIGHT USING IOT

Abstract

On a global scale, millions of dollars are spent each day on these street lights to provide the required electrical energy. The maintenance and replacement costs of conventional incandescent bulbs are immense. Smart Street light is an automated system which automates the street. The main aim of Smart Street light is to reduce the power consumption when there are no vehicle movements on the road. The Smart street light will glow with high intensity when there are vehicles on the road otherwise the lights will remain dim.The Smart street light provides a solution for energy saving which is achieved by sensing an approaching vehicle using the IR sensors. Thus, we save a lot of energy.

Modules

Light detection Module
Object detection Module
Power Saving Module

```
Total Energy Saved / day - 1 Unit
Regular LED Lamp Load - 20 Watt
Power Saving Mode - 2 Watt
Total Current Saved Per Day - 2.5 Amps

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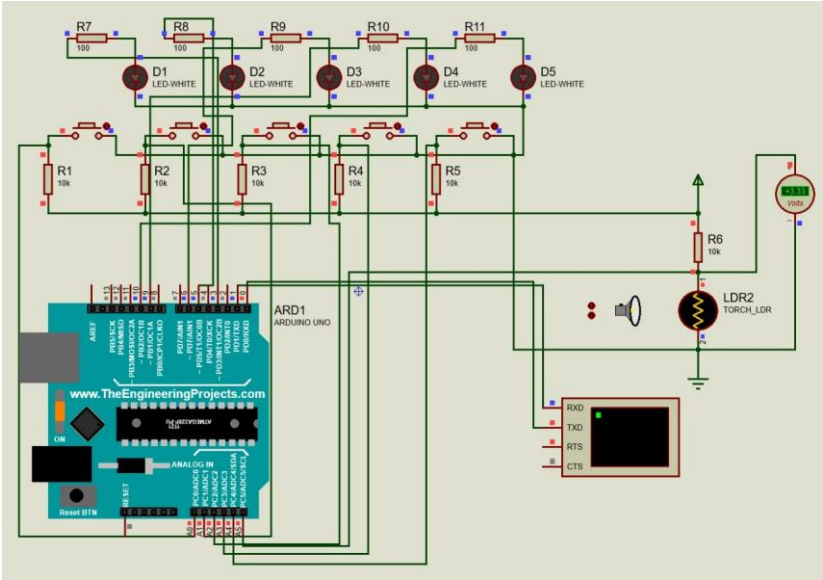
Architecture



Tools and Technologies

- **Python**
- **Sensors**
- **LED's**
- **Arduino Uno**
- **Resistors**

Conclusion and Future Scope

In this project, By using Smart Street light, It prevents unnecessary wastage of electricity, caused due to manual switching of streetlights when it's not required. It can reduce the energy consumption and maintains the cost. The system is versatile, extendable and totally adjustable to user needs.The Smart light system can be further extended to make the current system in two- way traffic, making the system more flexible in case of rainy days and introduction of ways to control the lights through GSM based server.

GitHub Links

1) https://github.com/19WH1A1212
2) https://github.com/AthiyaFathima
3) https://github.com/19WH1A1236-KP
4) https://github.com/19WH1A1259

TEAM

V.Sai Akshita 19WH1A1212 | **Athiya Fathima** 19WH1A1232 | **Priyanka Kolli** 19WH1A1236 | **M.Preethi** 19WH1A1259