

“INTELLIGENT STREET LIGHTS”
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by

Ashish Kumar
Chaithra M
Krishnananda
Sandhya P Nayak

1SI05IT010
1SI05IT015
1SI05IT025
1SI05IT048

Under the guidance of
Mrs. Latha H.K.E
Senior Lecturer, Dept of IT,
S.I.T , Tumkur.



Department of Instrumentation & Electronics
Siddaganga Institute of Technology
Tumkur-572103
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SYNOPSIS

Street lights or lamp-posts are the raised source of lights on edges of road which are lit manually turned on at dusk and off at dawn. It is noticeable that there is a heavy loss of power for keeping lights on all through nights where there is no requirement of that. As in recent world there is a serious increase in the demand of power, there is a need of controlled device in which street lights are deliberately designed to operate in completely automated manner.

The project entitled **“INTELLIGENT STREET LIGHTS”**-‘automation and control of street lights using sensors and controllers’ is designed and developed to overcome the problem of the energy crisis. The system operates in completely automated manner where the lights are switched off during the day time, works as normal street lights during the dusk. And in the night, when there is lesser human movement, acts Intelligently.

The PIR (Passive Infrared) Sensor is used as motion detector which senses human movement. The signal obtained from the sensor is encoded and transmitted to the receiver through antenna. The received signal is decoded and sent to microcontroller ATMEL AT89C2051 which acts as the interface between the input and output components. The controller decides to switch on or off the lights depending on the time of the day i.e., Day Mode, Dusk Mode and Night Mode.

In this way, the project concentrates mainly on meeting the energy scarcity by saving the power consumption by the street lights during no light condition. The unwanted usage of the power for lighting can be put under the category of pollution called Light Pollution. Intelligent Street Lights deals with the control of this kind of pollution.