RTC BASED AUTOMATIC STREET LIGHT CONTROLLER

ABSTRACT

The present human life is being dominated by automation very much. There is no office, school, companies, factories, industries etc., without this automation. Any work is done automatically in all fields in this fast era. Here it reduces the human work, it produces the more output with accuracy, and the system works efficiently. Every controlling action is taken automatically. We have taken the project to control one of the day-to-day activities automatically i.e., street lights control, where human mistakes lead to loss of power. However, the power is wasted in number of ways in our day – to - day life. In that one is wasting of power through street lights. Generally, streetlights are controlled by two methods: Manually & Automatically. In the Manual operation, we have to come across many disadvantages. In this the common human mistakes like not switching off the lights during the day times, neglecting the timings of switching On/Off the lights and in the rainy seasons with the irresponsibility of workers even a life can be lost. So it's all lead to the automation of street lights. The main aim of the product is to automate the streetlights using the AVR Microcontroller with the help of an Inbuilt Real time clock (RTC). In this Product we are using ATMAEGA328P microcontroller chip, which is having the inbuilt ADC, and this is the heart of this project, a Real Time Clock (RTC), which counts the present time, we can set the time period during which the lights are to be turned On/Off using program. The Microcontroller has programmed in such a way that both the criteria are considered i.e. ON time and OFF time and accordingly the street lights will be switched on/off.

BLOCK DIAGRAM