**GSM BASED AUTONOMOUS STREET ILLUMINATION SYSTEM**

**ABSTRACT**

Due to the increase of environmental concerns, lighting control systems will play an important role in the reduction of energy consumption of the lighting without impeding comfort goals. As mentioned the energy is the single most important parameter to consider when assessing the impacts of technical systems on the environment. Energy related emissions are responsible for approximately 80% of air emissions and central to the most serious global environmental impacts and hazards, including climate change, acid deposition, smog and particulates. Lighting is often the largest electrical load in offices, but the cost of lighting energy consumption remains low when compared to the personnel costs. Thus its energy saving potential is often neglected.

This paper efficiently defines the control of street lightning system and thereby saving electricity which is a major concern worldwide. It also describes the use of wireless sensor networks using GSM for streetlight monitoring and control. This system would provide a remote access for streetlight maintenance and control. It also discusses an intelligent system that takes automatic decisions for luminous control (ON/OFF/DIMMING) considering surrounding light intensity and time of the day both at the same moment. The system also senses various parameters like surrounding temperature, fog, carbon emissions, and noise intensities and suggests corrective measures. Power theft control is also integrated in the same system. The efficiency of the system is designed such that it can be readily installed in present on road conditions with extra cost of only a single controlling computer. The system is compatible to

solar cell installation.

**BLOCK DIAGRAM**

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