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Automatic Street Lighting System Uses NE555 Integrated Circuit and LDR

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Abstract

Street light is a raised source of light that is commonly used along walkways and streets when the surrounding turns dark. Presently High Intensity Discharge lamps are used for street lighting system based on principle of gas discharge, but they consume more power and have low CRI. By replacing the HPS with LED lamps we can save a lot of energy, reduce Co2 emissions and using the auto switching system we can also control power consumptions at the streets and eliminating manpower. With the broad availability of flexlighting technology like light-emitting diode Lamps, the street lighting system is fast reacting, reliably operating, and less power-conserving become reality. This project is all about to eliminate the manpower and reduce the energy consumptions at the street lights. This project includes controlling a circuit of street lights with the help of Transformer, Rectifier, Filter unit, LDR, NE 555 IC, BC 547 transistor, SPDT Relay, LED Lamp, resistance and capacitor during day and night.

Keyword: LDR, NE-555, Smart Street Lighting System, Energy efficient