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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "STREET LIGHT MONITORING AND CONTROLS IN REAL TIME USING GSM TECHNOLOGY"

Submitted By,


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DEPARTMENT OF BASIC SCIENCES
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# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

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## DEPARTMENT OF BASIC SCIENCES

## CERTIFICATE

This is to certify that the Micro-Project entitled **"STREET LIGHT MONITORING AND CONTROLS IN REAL TIME USING GSM TECHNOLOGY"** has been Successfully Completed by

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The bonafide students of **Department of Basic Sciences, Alva's Institute of Engineering and Technology,** affiliated to VISVESVARAYA **TECHNOLOGICAL UNIVERSITY, BELAGAVI,** during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

**Dr. Shashi Kumar K**
**Mini Project Guide**

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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. Nowadays, most of the existing street light systems are wired which are not only difficult to construct but also has poor flexibility. To overcome this, wireless system is required. In this report, we are using GSM technology which uses power efficiently by remotely monitoring and controlling the system. This system will ease the fault detection and maintenance. System allows us to make the most efficient use of the energy received from the sun to power street lights. Solar energy is collected with the aid of solar panel and battery is charged during day time and this energy is used to power street lights during night. Developed intelligent system turns the light ON and OFF depending on the vehicle or pedestrian movement, Real Time Clock and light intensity at the same time. Microcontroller processes the information from the sensors and is transferred to nearby control terminal (Base station with Raspberry PI as a compute module) to monitor the status of the street lamp using GSM technology via Short Message Service (SMS)