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**UNIVERSITI TEKNOLOGI MARA
CAWANGAN JOHOR KAMPUS PASIR GUDANG**

FINAL YEAR PROJECT (EEE368)

SMART STREETLIGHT SYSTEM

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DIPLOMA IN ELECTRICAL ENGINEERING (POWER)

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ABSTRACT

The goal of this project is to create an improved streetlighting system that could result in significant energy savings and lower energy usage. The sensors and Arduino microcontroller used in this proposed work allow it to regulate how much electricity is used during the night. It is also used based on the movement of the object when it is close to the sensor and at night, as opposed to manually turned on at nightfall and turned off the next morning. This project will automatically control the streetlight system, which the light will only operate when an object is picked up by the sensors. Also, any faulty bulb is remotely reported through IOT to the maintenance in charge.

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CHAPTER 1

INTRODUCTION

1.1 Background

A street light maintenance project typically involves monitoring and managing streetlights to ensure their proper functioning and efficient operation. Streetlights are crucial for providing visual aid in public areas during night-time, enhancing safety and security for pedestrians and motorists. However, like any other electrical infrastructure, streetlights can experience issues such as malfunctioning bulbs, damaged components, or power outages, which can lead to reduced visibility, safety concerns, and increased energy consumption.

A street light maintenance project aims to address these issues by implementing a system that can monitor the status of streetlights and promptly detect and report any faults or anomalies. This can be done using various technologies such as microcontrollers (e.g., Arduino), sensors (e.g., LDRs, motion sensors), communication modules (e.g., GSM/GPRS), and software applications. The project may also include features such as remote control, automation, and energy management to optimize the operation of streetlights and reduce maintenance costs.