**PROJECT PROPOSAL FORM**

# Student name: Mah Sung Kit

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**Project title: RFID and Motion Detection Based Access System**

**Supervisor: Mr. Gan Boon Siang**

**Brief description of project:**

A security system is a comprehensive set of measures and components designed to safeguard individuals, assets, or information from various threats, risks, and unauthorized access. The primary goal of a security system is to provide protection and ensure the safety of people and valuable resources.

In this project, an ESP32 microcontroller will be used to construct a security system that combines RFID access control and motion detection features. The Arduino IDE will be used to configure the ESP32 to control access using RFID cards and use sensors to detect movements.

The principal aim of this project is to proficiently leverage ESP32 microcontrollers for the implementation of motion detection and RFID-based access control, thereby substantially enhancing overall security. The key features of this system include photo-access recording, a comprehensive database for checking historical access data, and the integration of a user-friendly web GUI or another interface. Through these enhancements, the project seeks to elevate the quality of security measures, ensuring a robust and efficient solution for diverse applications

Designed with versatility in mind, this project finds practical applications in various settings including home security, offices, industrial facilities, school teachers' offices, and server rooms. The proposed devices can be strategically placed at the entry points of buildings, offering a comprehensive security solution that addresses the unique needs of diverse environments.

The Supervisor and Project Manager should sign in the space provided below to indicate that the necessary resources (including supervision time/expertise) are available for the proposal.

Student Signature: ..........................................................................................

Project Manager Signature: .........................................................................................

Date: ................................................