DEPARTMENT OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
CAWANGAN PULAU PINANG

FINAL REPORT OF DIPLOMA PROJECT

# PROJECT TITLE
# AUTOMATED UiTM STAFF'S PARKING SYSTEM

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In the name of Allah S.W.T, the most gracious and merciful, praise to Allah the lord of universe and may blessing and peace of Allah be upon his messenger.

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## ABSTRACT

Automated Car Parking System is a circuit that includes 4 major circuits, 2 transmitters and 2 receivers. A pair of (TX1) transmitter and receiver (RX1) is install across the barrier. Another receiver is to switch on or off the system by a transmitter that been activated by user. The transmitter circuit consists of 2 NE555 timer IC, capacitor, infrared LED and IN4148 diode. The receiver circuit consists of infrared receiver module, 74LS1 dual 2:4 decoder, 7404 hex inverter, 7400 NAND gate, 7432 OR gate, 74LS74 dual D flip flop. This circuit is design to censor a car during it exit or enter the parking lot. Another pair of receiver (RX2) and transmitter (TX2) is work as it remote control section that operate the system.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Automated car parking system that been installed by dealer cause thousand of ringgit. As an alternative, a simple type receiver and transmitter that use easy to find IC can be constructed to create a useful and cost effective automated car parking system.

### 1.2 Scope of Work

In order to build the automated car parking system, main receiver (RX1) and a main transmitter (TX1) have to build to enable it to sensor car entering or leaving the car park. TX1 has 2 infrared LED and RX1 has 2 receiver module to generate a logic 1 1 when no car entering. When the car approach, the signal will be 0 1 and the barrier open. 0 0 signal will close again. The receiver (RX1) and transmitter (TX1) will become the remote control park in the system. RX2 will be install with RX1. TX2 as the remote control will send signal to RX2 to generate the parking system. This remote control will supply to user.