# Universiti Teknologi MARA

# QR Code Scanning for Auto-Generate Location based Information for Facility Management

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### ABSTRACT

This project aimed to design and upgrade the current system of facility management "e-Aduan Fasiliti" by replacing some of the manual entries for a more precise location in UiTM Shah Alam. This research will be focusing on developing an application for the student and lecturer, who used to report the problem of facility management with ease. There were 5 phases in developing this project: (1) requirement analysis, (2) design, (3) development, (4) testing and (5) maintenance. The developing are including the QR Code that will get the location effectively in the development phase. A mobile application is the main focus to insert the QR Code into the facility management system to make the location more accurate. The developments is implemented using android studio. The overall system was evaluated using Redmi Note 9 Pro smartphone with a specification of the android 10. Our results show the effect that the system cannot be launched within a smartphone that uses below the specification of the android version 8.0. The application has achieved the predefined objectives, which are to set a location using QR Code.

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## **CHAPTER 1**

### **INTRODUCTION**

This chapter provides the background of the study to this research. It's also explained the details of this project proposal.

### **1.1 Background of Study**

Facilities management are relevant to maintain the conditions of the buildings. The term for the facility management also covers building maintenance, utility supplies and domestic services such as cleaning and security. Architects, engineers, designers, and tenants play significant roles in determining the value of the building and any potential to save time, money or effort.

Facilities Management (FM) can be defined as creating a condition that is cohesive to carry out an organization's primary objectives, taking an integrated view of the infrastructure services and use it to give customer fulfillment and value for profit through support for an enhancement of the core business (Noor & Pitt, 2009). However, since FM has been identified as a multi-disciplinary area of development and opportunity, it has resisted a universal definition (Nutt, 1999).

Smartphones play a significant role in people's daily lives. According to the Statistic Research Department, there has been a steady rise in the percentage of people in the emerging markets who own and use smartphones. In 2017, the rate of smartphone users only in Asia-Pacific was estimated to number over 1.25 billion. By 2019, the smartphone penetration rate among mobile phone