

UNIVERSITI TEKNOLOGIMARA

**CITYLINER BUS TRACKING
SYSTEM USING MOBILE-BASED
GPS**

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ABSTRACT

The main purpose of this project is to develop Cityliner bus tracking system using Global Positioning System (GPS) tracker system in smartphone application to help passengers of Cityliner Bus in Kota Bharu track the current bus location in real-time. Besides that, to improve current bus transportation service system in Cityliner bus transportation service by introducing the bus tracking system and reducing the workload of bus management team. This proposed system can also show latest updated estimation arrival time of the bus. This project is using a device embedded inside the bus, which is the GPS tracker from the driver's smartphone. However, this development is only developed for Android users. This application system is implemented in mobile application so that users can easily track the bus from their smartphones. The GPS tracker device will transmit data of the bus coordinates by continuously receiving updated position from the GPS satellite, then send the data to the central server to process the real time information. Therefore, passengers able to know the movements of the bus as they use this application system.

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CHAPTER 2

LITERATURE REVIEWS

2.1 Introduction

In this chapter, the focus will cover on the technologies that are going to be used to develop the mobile bus tracking system. Besides that, this chapter also will discuss more about the GPS tracking technology, features, platform, and the similar existing system in mobile application. Some related works will also be included so that the readers can have a better understanding. After conducting a lot of research by reviewing the articles and journals from past researchers, many of them do the research about mobile GPS tracking system for their vehicle tracking.

2.2 Technology Involved

Studies are needed on major technologies in order to construct a framework. The proposed system would use the Global Positioning System (GPS) and the Android mobile application platform. The comprehensive studies are defined.

2.2.1 Global Positioning System (GPS)

GPS is the US Department of Defence's satellite-based navigator system. Initially, it was planned to help organize the position of military aircraft and ships worldwide. Today, the GPS role has been expanded to commercial and science fields. GPS was used commercially for navigation and as a car, aircraft, ship location tool (Maggi Glasscoe, 1998). To receive GPS data from the satellite, a system known as a