

**COMMUNICATION MODULE FOR URBAN VEHICLE  
TWO-WAY CONNECTION MONITORING DEVICE**

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## **ABSTRACT**

This project presents a communication module for urban vehicle 2-way connection monitoring device. The vehicle monitoring device which allows two-way connection via mobile communications internet or GSM between an owner and his vehicle. Available current solutions for vehicle monitoring and as well security rely on action of people close to the vehicle because there is no owner-to-vehicle interconnection when owners and vehicles are separated. Besides the owner also difficult to monitor their vehicle if they have more than one vehicle. The main objective of this project is to create a fleet monitoring device that allows interconnection between owner and vehicle. The main purpose is to allow the owner to keep track of the vehicle, by alerting the owner when certain conditions are detected which suitable for private usage or for transportation company. The project framework is divided into 3 modules: sensing, action and communication module. The sensing module will allow temperature, audio, acceleration and impact sensing. The action module will cover GPS, GSM, GPRS and camera triggering and interfacing, controlled by an algorithm programmed to suitable microcontroller platform. The communication module will ease two-way interconnection involving notification for location and images of the vehicle. Scope of this proposal will focus on only for communication module for 2-way connection monitoring device between users and vehicle for fleet monitoring system. The sensing module will be designed to detect certain condition when the vehicle is moved. When these conditions are detected, the monitoring unit will be programmed to send out notifications to the fleet monitoring system. From that notification, the user able to monitor their vehicle and communicate using a device such as smartphone or computer. The owner now has access to monitor the vehicle at any time and at anywhere from their mobile device or computer.

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# CHAPTER 1

## INTRODUCTION

### 1.1 OVERVIEW OF STUDY

Nowadays, all the things around us becoming more smarter which they equipped with advance technologies as a way to make a life easier and more comfortable . Every peoples can simply control and monitoring for example by using mobile device or webpage as a way to interact. In fact , the continous growth of mobile device in its functionality and capability has lead to an increase in the demand for advance mobile application to become one of the communication module with others .Now smartphome and computer are more than just a gadget and its become everyone need. Besides , in today's life having broad range application such as education , healthcare , navigation and entertainment . Many vehicels nowadays , are equipped with advance sensors system and connected to various way so an owner able to communicate and monitor their vehicle easily . In this paper it puts forward a vehicle monitoring device which allows two-way connection via mobile communications/internet between an owner and his vehicle for fleet monitroing system. This communication module can be apply whether for the private vehicles or fleet vehicles for safety and tracking purpose at anywhere and anytime.