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**ADM NO. : CIT-223-032/2018**

**Chapter 2: Literature Review**

# 2.1 Introduction

In today’s era, the number of vehicles in Kenya is increasing at a rapid rate. Vehicles are now being manufactured in efficient ways such that they offer better fuel economy, reduced accident rates and better on-road performance. All these important features are enabled by the use of computers which are embedded into the vehicle. The computers are commonly referred to as “Engine Control Unit(ECU) or Engine Control Module(ECM)”. It is with no doubt that vehicles will continue to have sophisticated technology as time goes by.

Vehicles will therefore need expert mechanics who can safely repair and maintain them. It is very risky to have your vehicle being repaired by someone who is not qualified as this could lead to serious accidents. Situations such as a car losing its brakes while on the road could be the result of a mechanic not checking the brake fluid level while replacing brake pads.

The purpose of this website application will be to connect car owners to competent mechanics who can be trusted to do a good job. The mechanics will also record the repair history of a car, thus the car owner can track his/her expenditure on car repair and maintenance.

# 2.2 Related systems

### **mCarFix App**

mCarFix App is an android application that enables car owners, garages, auto-spare parts dealers and mechanics to connect to each other. Users are allowed to access authorised garages and auto-spare dealers. The app also offers information on how parts of a car function.

The app helps users to check on their car’s insurance status and links them up with insurance agents.

It helps auto spare dealers to reach more car owners thus increasing their revenue.

There is a feature which records the service history of a car. There is another feature which one can use to report a stolen car and the police will be alerted. Other users of the app are also

### **YourMechanic**

This is a system based in the United States of America which enables registered users to book appointments with mechanics online.

Users mention their car needs and get a price quote. They also have a choice on where their car will be repaired. One can choose any location that is convenient for them, be it their home or their office.

One can also register as a mechanic. He/she will then be interviewed by members of YourMechanic company. Where upon qualification one will be able to set the hours he/she is available for work. The mechanics also choose the location where they want to work.

This system reduces the need for queueing in garages waiting for a mechanic to repair your car.

# 2.3 Limitations of these systems

The named systems aim to serve a good purpose, that is connecting car owners to professional mechanics. Nevertheless, the systems have limitations which limit their overall effectiveness.

* For mCarFix app, it is an android application, therefore people who have smartphones running different operating systems, such as iOS, cannot use it.
* mCarFix app does not have a feature where mechanics can sign up online.
* YourMechanic system is based in the United States of America therefore, it is not applicable in Kenya.

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# 2.4 How the proposed solution will handle these limitations.

With the proposed solution, I aim at solving some of these limitations.

The main goal of this project will be to connect more car owners to competent mechanics. While giving professional mechanics better chances of reaching more people and generating more revenue.

The proposed solution will be based in Kenya. It will also be a web application which will make it more accessible to all users who have access to an internet connection.

The solution will also incorporate design principles which will ensure users have an easy time navigating through the system.

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## **References/Citations**

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