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Car Remote Locking Via Bluetooth Using ANDROID

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Abstract - ***Vehicle security and making advancement in car features and its technology have been major concern in automobile industries. Many of us face difficulties in unlocking / locking the car upon losing the car keys. So to solve this issue, an embedded system will be designed and implemented in a real car that will provide feature of unlocking and locking the car using a smart phone. This paper shows the function of controlling the vehicle doors using mobile Bluetooth and Android application. This technology will help the user to access his/her car with an ease from a distance of 10 meters away from the vehicle through Mobile Bluetooth. Here, Android will be used because it provides a vast platform to the developers and its devices are used widely.***

1. INTRODUCTION

In this world, everyone and every industry like to keep pace with the advancement in the technology. Automobile industries are also not behind in this aspect. Nowadays almost everyone has a car. As purchasing a car is a big investment, people are really concerned about the advanced technologies in automobile industry. Therefore, automobile companies have witnessed a major boost in their technological aspects by introducing automation in the vehicles to provide user friendly and advanced features to their customers.

Imagine the world with the vehicle locking by using mobile Bluetooth technology will be a great advantage in terms of human energy and time consuming. It will indeed be free of charge or no cost involved and can be activated in safe mode since the vehicle still in lock/unlock condition. Therefore, in this project an application will be implemented and developed for mobile phone car locking system by using Bluetooth technology. The system will be constructed by integrating both hardware and software.

It can be developed to get an easy access to our car i.e. to unlock & lock the car doors with the help of our smart phone so that the owner will not have to search for their keys in their pockets or bags and can simply access their car by tapping the smart phone screen. This will also help the user to find their car in a parking lot. This thought will come true with the help of a Bluetooth device, a digital locking kit with simple microcontroller coding and an application as an interface. Nowadays we need to carry our keys and keep it safely, and if lost then suffer the cause. But this will not be the scenario anymore, there will be no need to carry our keys when we will be able to enter into the car with just a smart phone tap.

2. LITERATURE SURVEY

The paper shows the function of controlling car doors using mobile Bluetooth Technology. This technology will help the user to access his/her car with an ease. The function was operated and implemented by using 89c2051 and 89s52 microcontroller. The function which was built, can be operated within the range of 10 meters from the vehicle through Mobile Bluetooth.[3]

Many of us face difficulties in unlocking/ locking the car upon losing the car key. Moreover, if a car gets stolen and used for any illegal activities banned by the government then a car owner will face many legal issues. So to solve all these issues, an embedded system was designed and implemented in a real car that provides car security as well as additional features such as locking and unlocking of the car doors and turning ON and OFF the car engine using smart phone.[1]

The paper shows an application which was implemented and developed for mobile phone to access car door locking system. This system was developed by integrating both hardware and software by using 'EmbededBlue' 506 Bluetooth technology. 'EmbededBlue' and Smart Phone were used as communication devices. The software was designed using the Dynamic C which was compiled and loaded into Rabbit Core Module.[2]

By transmitting a Bluetooth signal from smart phone, the system could access the car which is in locked/unlocked condition. The advantage of this system is that the user

can access their car at anytime and anywhere from 0 -10 meter radius and just for free for the rest of life.[7]

3. PROPOSED SYSTEM

An electronic system proposed in this paper has the following objectives:

i. Locking of the car by sending instruction from the user mobile phone to the microcontroller installed in the car.
ii. Unlocking of the car by sending instruction from the user mobile phone to the microcontroller installed in the car.
iii. Provide the location of the car in a parking lot in terms of light blinks upon request from the user mobile phone.

The system can be developed using the following components

Hardware-

- Microcontroller
- Relays
- Bluetooth
- Car Locking system

Software-

- Android Studio
- Eclipse
- JDK
- SDK

4. CONCLUSION

Bluetooth based car locking system with android application will be implement & design through this project. We will design and operate the vehicle's Door Locking through the Bluetooth Device. This project will be feasible for following functions & which are beneficiary of

- Various control mechanism away from vehicle
- Time saving/ Comfortable to user
- Secured

5. FUTURE SCOPE

- This project can also be applied on different types of smart watches.
- Advancement can be done to control windows, ignition, music system, and other types of common features.
- Advancement in app to locate the car via GPS can be added.
- Control over voice recognition and blink wink can also be applied

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