INTRODUCTION
We are already aware that motor vehicles display the amount of fuel in the fuel tank by means of some indication like bars running through the E (empty) and F(full) indicators. The manufacturer provides the specification that each bar maps to the corresponding litres of fuel approximately. To the contrary every one of us might have experienced the problem with improper estimations of the current fuel level in the tank with the existing bars representation system. Today in this digitalized world, if the fuel indicator in the automobiles is also made digital it will help to know the exact amount of fuel available in the tank. The above furnished fact is considered in our project.

OBJECTIVE
- Creating an Digital Fuel Indicator, to measure the exact amount of fuel in the tank and display it.
- Monitoring of fuel theft and leakage, and to bring it to the notice of the owner.
- Developing an Android Application using which we can unlock or lock the car doors.
METHODOLOGY

BLOCK DIAGRAM

The different components which are required to implement this Digital Fuel Indicator, Fuel theft voice alert and Central locking control using Android application and brief introduction about all components are given below with a block diagram

![Overall Block diagram of the Project](image)

DESCRIPTION

In our project we have implemented Digital Fuel Indicator which shows exact amount of fuel in the tank. The DC motor starts running which indicates that vehicle is in ON state, whenever some quantity of fuel is added, the amount of fuel and the cost for that will be sent through an SMS to the owner using the GSM. Meanwhile the total amount of fuel, quantity of fuel added and the cost of the fuel added will be displayed on the LCD. Whenever the vehicle is not running i.e, DC motor is in OFF state. If there is sudden drop in the fuel level from the last noted level, it means fuel theft or fuel leakage has been detected. Then the theft SMS will be sent to the owner of the vehicle through GSM. Meanwhile a voice alert telling that fuel theft has occurred will be sent and also buzzer beep will be heard. Another feature of our project is, if the car keys are lost or left inside the car and if the central locking system is activated, then car doors will be closed automatically. We cannot open the doors without the spare keys, so we have come up with the solution for this by using Android Application. By using the lock button in the Android Application we can lock the door, similarly we can unlock the doors by unlock button.
RESULT AND CONCLUSION

Thus we have arrived at the concept of Digital Fuel Indicator and Central locking control using Android Application in the vehicles. Even though the unit installation and implementation is costly, the accuracy and security achieved makes the system useful. Hence the system could be implemented in vehicles to measure the fuel in the tank accurately and detect the fuel theft. Implementation and use of Android application to control the locking and unlocking of car doors will have great benefits in the vehicles.

FUTURE SCOPE

As the fuel monitoring system is applicable for single vehicle if the owner is having multiple vehicles like a travels company with many vehicles mobile won’t be sufficient to track. So many vehicles so this can be extended to tracking system where all the vehicles fuel data can be directed to a database were each vehicle can be tracked easily by the owner. There is a scope for developing low cost sensors and implementing data acquisition system for storing the data of fuel fillings per month or per week if it cannot be monitored continuously.