

# Lost Vehicle Detection System Using RFID

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**Abstract**— In this system, The Lost Vehicle Tracking Systems makes the tracking (searching) of lost vehicles easy using the RFID tags & RFID reader. The lost vehicle will be detected using the reader on the police vehicle.

## 1 INTRODUCTION

Lost vehicle tracking system is one of the problems that any developed or developing country faces for many times. The main issue faced is that the parts or the number plate of vehicles are changed and then it becomes a bit hard to identify and track the vehicle. This indirectly affects on the public's trust on the system as well as the government. All these issues can be solved by proper maintenance of the data in the database & proper way of identifying the vehicles but in today's manual way of tracking the lost vehicle, it takes more time and needs more manpower as well. And if the vehicle is not recognized, then the police system is the only one responsible for this (as per people). Taking all these problems into consideration, solution can be a lost vehicle tracking system that in identifying the vehicle and tracking its location as well. The main aim of the work is to design a smart system that becomes a solution to all these issues. Introducing an intelligent system that helps in tracking and identifying the lost vehicles in less time. The aim behind is to make the tracking of lost vehicle easy for the police department (system). This saves fuel as well as time of the police department. This ensures proper time and fuel management. So, this is very useful smart system that will ease the work of tracking the lost vehicles

## 2 PROPOSED METHODOLOGY

We are assuming that vehicles are placed with RFID tags. Reader will be placed in POLICE vehicle. So when lost vehicle's entry is made in the police station, POLICE VAN will look in the area for searching the lost vehicle. As every POLICE VAN will host RFID reader and database of lost vehicle then even if lost vehicle is found in some other area, it can be recovered. RFID reader placed on POLICE VAN will read the tags. Lost Vehicle Tracking System will match the tags read by the reader with the database of lost vehicle maintained. If found then it will display the vehicle's registration number (number plate).

So it will be easy to find out the vehicle from the group of vehicles. It will simultaneously sound a buzzer to indicate the presence of lost vehicle in near by area.

## 3. ADVANTAGES

1. Efficiency: Can scan multiple items at once.
2. Durability: Can handle exposure to sun & rain.
3. RFID allows for greater security than barcodes.

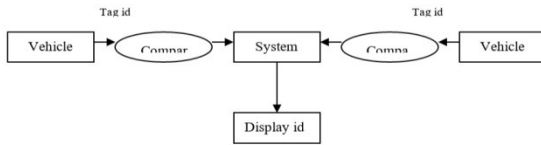
## 4. DISADVANTAGES

1. Materials like metal & liquid can impact signal.
2. Sometimes not as accurate or reliable as barcode scanners.
3. Implementation can be difficult & time consuming.

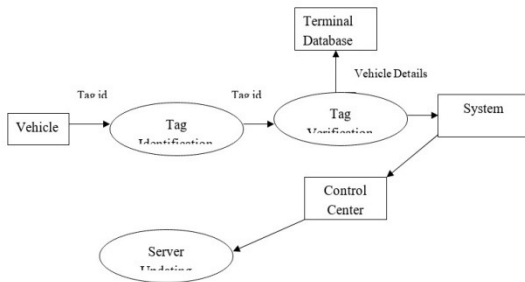
## 5. FUTURE SCOPE

We are assuming that vehicles are placed with RFID tags. Reader will be placed in POLICE vehicle. So when lost vehicle's entry is made in the police station, POLICE VAN will look in the area for searching the lost vehicle. As every POLICE VAN will host RFID reader and database of lost vehicle then even if lost vehicle is found in some other area, it can be recovered. RFID reader placed on POLICE VAN will read the tags. Lost Vehicle Tracking System will match the tags read by the reader with the database of lost vehicle maintained. If found then it will display the vehicle's registration number (number plate). So it will be easy to find out the vehicle from the group of vehicles. It will simultaneously sound a buzzer to indicate the presence of lost vehicle in near by area.

DFD : (LEVEL 0)



DFD: (LEVEL 1)



this project like RFID readers (GP20 READER) that will make the system working. This system is very useful and helpful for any lost vehicle tracking (theft tracking). It will be a great system and the lives of the people and work of the police system will be eased with the help of this. The traditional way of manually tracking the lost vehicles in the area from where the vehicle was lost (robbed) is a cumbersome process and utilizes more human effort, time and cost which can easily be avoided with our present technologies. This is our solution, a method in which the lost vehicle tracking is made much easier than the current traditional way. This is our RFID based Lost vehicle tracking system, an innovative way that will help to track the lost vehicles as soon as possible. All in all we can say that this system is very useful and helpful for police department & other people as well.

It will be a great system and the lives of the people & work of police system will be eased with the help of this.

### ACKNOWLEDGEMENT

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### 4 CONCLUSION

This report represents the work accomplished on Lost vehicle tracking system using RFID. In this system, we have used RFID tags & RFID readers. We used sensor for implementing