



HIGHLY SECURED SMART DRIVERS LICENSE WITH THUMB IMPRESSION

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Abstract—Identifying the person who didn't have license is a major problem for both traffic police and government. Recently, the most commonly verification of the driving license is done by the traffic police. This method of verifying driving license has been very difficult for the traffic police. But in smart driving license it is very easy to verify the driving license. This license has the thumb impression of the person. The vehicle will start only when the driving license is matching with the thumb impression. If else the vehicle didn't start.

Keywords—license verification, thumb impression, matching, didn't start, automatic control.

I. INTRODUCTION

In this system, the person driving the vehicle without a license can be detected easily. Whenever the person wants to start a vehicle, then the person should show their smart driving license. Then the person should keep their thumb impression. If the smart driving license and the thumb impression are matched, then the vehicle will start. If else the vehicle didn't start. This also sends the message to the vehicle owner. If the vehicle is started by the owner's

friend then it will send messages to the owner.

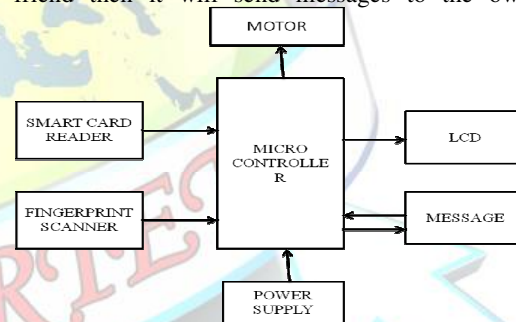


Fig 1: Block diagram of vehicle unit

Then the owner will allow or deny the vehicle to start. If the owner allows the vehicle will start. If else the vehicle will not start. It will avoid the person driving the vehicle without a license.

II. EXISTING SYSTEMS

Nowadays, the verification of license can be done by the traffic police in different places of the cities. They also charge some fine amount for the person who didn't have a driving license. But this penalty are not strong deterrents. Some police get money from the person without getting the penalty amount. This will also increase the person driving without license. This will also cause many accidents due to the unlicensed drivers. It is also very difficult to find the unlicensed drivers. In India as many as 1.62 lakh road accidents were caused by underage drivers and those without licenses between 2012 and 2014, the government today said. Accidents caused by drivers



without licenses during the period were 1.01 lakh, Minister of State for Road Transport and Highways Pon Radhakrishnan told the Rajya Sabha in a written reply. He said under-age drivers, below 18 years old, caused 0.60 lakh accidents in the three years. "Section 180 of Motor Vehicles Act, 1988 provides for punishment of imprisonment or fine or both for the offense of an owner or persons in-charge of vehicle permitting an unlicensed person or under-aged person to drive it," the minister said. Section 181 of the Act provides for punishment of imprisonment or fine or both for the offense of driving with an under-aged person, he added. He said,

though the enforcement of various provisions of the Act, including driving by underage and unlicensed drivers comes within the purview of the state governments, the ministry has been carrying out awareness campaigns on this issue through print and electronic media. India accounts for 5 lakh road accidents a year, one of the highest globally in which 1.5 lakh people lose their lives. So it is very important to take steps regarding the driving license. The person who driving the vehicle without a license can be detected easily through the proposed system.

III. PROPOSED SYSTEM

The proposed system uses fingerprint of the person who has the driving license to start the vehicle. In this system the driving license is a smart

card. The smart card can be first shown in the vehicle. Then the vehicle verifies the smart driving license. The smart driving license consists of the person's name, date of birth, blood group and validity of license.

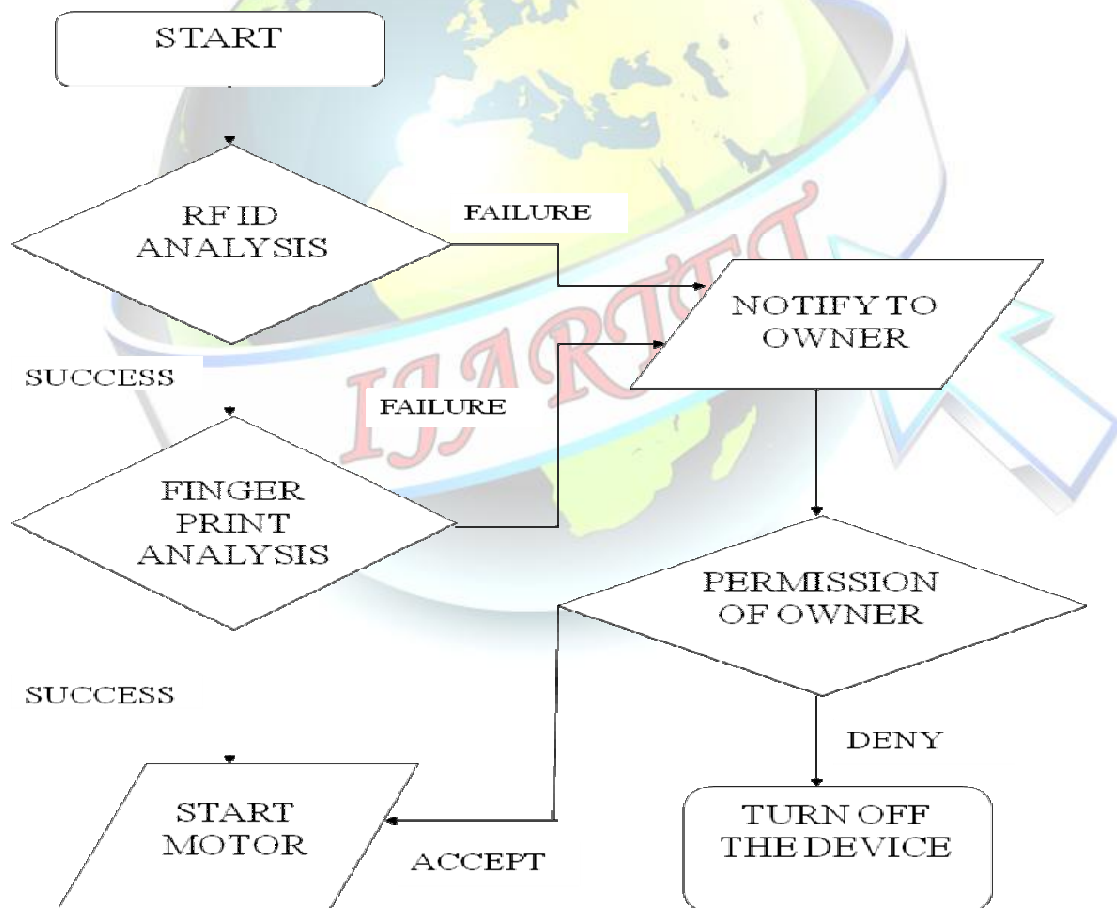


Fig 2: Flowchart of smart license and thumb impression



This smart card also consists of the thumb impression of the person who having the driving license. The person should place the smart driving license in the device. The device verifies the smart driving license. Then it needs the person's thumb impression. If the thumb impression and the driving license are verified. Then the motor will automatically start. The thumb impression is very unique to everyone. If else the device will send the notification message to the owner's mobile. It sends the message as unauthorized user. If our friend wants to drive our

vehicle, it is mandatory to get our permission to start the vehicle. Hence our vehicle is very secured. If we sent the message the motor will not start. If the license. This will be very helpful for the highly secured vehicle. It will also reduce the accident's which were caused by the unlicensed driver's. In this system, it will also ask the owner's permission to start the vehicle. Hence the vehicle owner has the full control of the vehicle. [5] discussed about Intelligent Sensor Network for Vehicle Maintenance System. Modern automobiles are no longer mere mechanical devices; they are pervasively monitored through various sensor networks & using integrated circuits and microprocessor based design and control techniques while this transformation has driven major advancements in efficiency and safety.

IV. COMPONENTS USED

| COMPONENTS | VALUES |
|-----------------------|---------------------------|
| STEP DOWN TRANSFORMER | 220V-12V |
| CAPACITOR | 1000uF, 100uF, 10uF, 22pF |
| DIODE | 1N400 |
| RESISTOR | 1k, 220, 4.7k, 1.5M |
| REGULATOR | IC7805 |
| CRYSTAL OSCILLATOR | 3MHZ |
| MICRO CONTROLLER | 8051 |
| LEVEL CONVERTER | MAX232 |
| GSM | SIM800C |
| RELAY | 7.5A/ 250V AC |
| DC MOTOR, LCD | PRE-DEFINED |

ACKNOWLEDGMENT

The Authors would like to thank Mr. Gabriel Santhosh Kumar and Ms. Preetha for their

encouragement in carrying out this work. We also thank our colleagues for their technical support and in the documentation of this paper.

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