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AADHAAR BASED E-DRIVING LICENCE VERIFICATION SYSTEM

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ABSTRACT

The study deals with the driving license system in India. The objective is to study the present driving license verification system in India and suggest recommendations to make the process more effective and citizen friendly. Regional transport office is the organization of Indian government responsible for maintaining a database of vehicles for Pan India. The Regional transport office issues driving licenses and maintain the collection of vehicle excise duty and sells personalized registrations. It is mandatory that all drivers must and should produce the Driving Licenses, insurance, RC copy failing which they should pay penalty in case caught by traffic police. This study proposed an approach to solve such problems by acquiring all the information related to driving license from the Regional transport office database through Aadhaar details. We know that Aadhaar Details contain biometric information. In this system, we used Regional transport office data which we linked with Aadhaar details. The traffic police have to take thumb impression of the driver through the fingerprint and system verifies driving license. If the driver's verification is not successful then the person has to pay the fine.

Keywords: Driving licenses, Regional transport office, Aadhar.

I. INTRODUCTION

In India the driving licence is official document which authorises its holder to operate various types of motor vehicles on highways and some other roads to which the public have access. The verification of driving license on road is done by traffic police Traffic police is a authorise person who has authority to check driving license of a person at the time of driving. The verification or checking of driving licence is done manually by only seeing the hard copy of driving licence. But this procedure has lots of disadvantages such as duplication of licence.

Regional Transport Office is an Indian government bureau is answerable for the registration of vehicles and also the issue of Driver's Licenses in India and maintaining records of drivers & vehicles. Except from maintaining records, Regional transport office also collects road tax throughout registration, check for vehicle's insurance, emission test etc. According to Motor act, no person shall drive the vehicle without proper documentation; a driving person should carry Registration Certificate, Insurance Certificate & license. Failing which the person has to pay a certain penalty or face the cases charged against them. As India is turning towards "Digital India" where paper money is replacing by online or plastic money (Cards swipe) debit or credit cards, similarly we have provided facility to collect fine amount through on-line. Aadhaar is a twelve digit unique-identity number issued to all Indian residents based on their biometric and demographic information. During this paper, we proposed an approach to solve such problems by storing all the information related to the driver in the Regional transport office database through Aadhaar number.

We overcome these problems in our proposed system by authenticating person through Aadhaar Number or Fingerprint verification. In this system the person no need to carry driving licence at the time of driving.

Once Aadhaar becomes mandatory for driving licences and vehicle registrations, the government will gain superior administrative control while maintaining transparency through the digitized platform powered by Aadhaar. Aadhaar is already a very important identification document that's need for application of recent LPG affiliation, admission to any institution, board exams, PAN card, e-filing ITR, and varied alternative welfare programs and subsidy from the government.

II.   LITERATURE REVIEW

It introduces an Automation of Road Transport Department through Cellular Network, verification of the License and Vehicle documents electronically, and reduces a lot of paper work and manual efforts. ERTO is an advanced "ERTO Management System" which is designed keeping in view to make the existing registration and insurance system easier and faster. It includes the entire registration and insurance procedure starting from the initial phase of entering till the results[1].

"Cross verification of vehicle and driver for RTO" praveen Kumar n.hadapad et al [3] developed "cross verification of driver and license for rto", a system that a facilitates for rto officers to perform verification of license and vehicle documents through an android application. This paper targets to store the information related to vehicle such as insurance, license, emission testing details, personal details of the applier and registration date. This application would be installed in Android phones of traffic police. And it will provide input fields to traffic police to enter the vehicle number as well as license number in order to retrieve the information related to vehicle and license from database.

"Edriving license and RC book verification system using QR code" Nilav mukhopadhyay et.al [2] proposed a novel method called qr code in smartphone. With this system, the driver goes through the verification process in a reliable and efficient manner [2].

"Vehicle Information System" Prof. Yuvraj Nikam et al [4] provide the facility that by having the image of the number plate and finger prints we can track the owner and vehicle information."Image processing and Biometric Approach for License and Vehicle documents verification" Sanjeev Shelar et al [5] Presents an application which will facilitate the digitization of all documents which are required for the vehicle verification. From the above survey, it is clear, that work based on driving license verification is very less. Hence we are proposing a novel method called "E-verification Of Driving License through Aadhaar Database", and demonstrated its effectiveness for some test data. Experimental evidence shows that this technique is easier and faster than the other methods used in the survey[5].

III.   ANALYSIS OF PROBLEM

In India, the driving licence is the official document which authorises its holder to operate various types of motor vehicle on highways and some other roadsto which the public have access. In various Indian states, they are administered by the Regional Transport Authorities/Offices (RTA/RTO). A licence is needed in India by any individual person driving a vehicle on any road or alternative road outline within the Motor Vehicles Act, 1988. A driving licence is very important for allowing people to control or drive a motorized vehicle such as a car, motorbike, truck, bus, etc., on a public road, without any supervision. In India traffic police or traffic officers are authorized person who check the driving license and other vehicle related documents. A driving licence is having ATM card like structure which we have to carry at the time of driving. If sometime you stop by the traffic police for some reasons and at that time you don"t have your driving licence with you, then you have to penalty or fine. The process of checking driving licence on road is totally manually. This existing system contains lots of disadvantages like corruption, duplication of license etc.

IV.   PROPOSED WORK

First of all the traffic police will login by us g its own id and password then take there are two options one is fingerprint verification and another is UID verification. If the license is linked with Aadhaar card then only the person is having valid license and if person does not have valid licence then traffic will make receipt of fine. This system is developed using Android platform work as front end and MySQL 5.3.4 as the back end Keeps the license documents safely and offer the drivers to be driving license. Algorithm for driving license verification system . There are some steps to follow this are:

Step 1: Start.

Step 2: Login page will be displayed.

Step 3: Authentication is done using RTO database. **Step 4**: Read the thumb impression of the driving person.

Step 5: Match the thumb impression with template present in the RTO Data Base.
Step 6: **a**: If match is unsuccessful generate the fine and Deduct the fine amount from the driving person's bank account. Go to step 7.

Step 6: **b:** If match is successful then go to step 7.

Step 7: Stop.

Flow chart for verification of driving license

V.   RESULT

Login page: Here Traffic Police has to login if he is already registered. Else move to signup page. In that page first option is login page traffic police will be login first then go to the process of thumb. If traffic police is new then its first step is to sign up the go through another process.

Figure : Admin Login
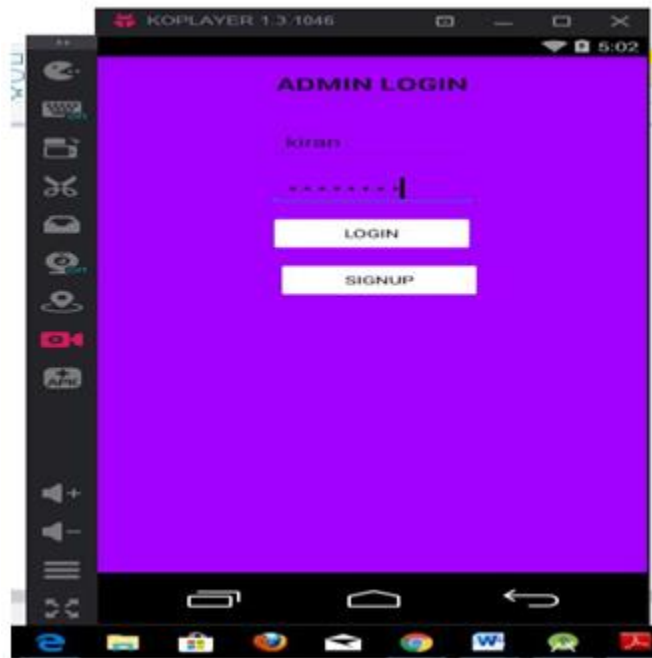
Admin Login: Here Traffic Police enter id and password if he is already login.

Verification Mode: In verification mode In this module the traffic police verify whether the person is having valid licence or not and if does not having valid licence then the traffic police use make receipt option to collect fine. There are three ways to verify if person is having driving license or not. Three ways are: fingerprint verification, UID verification, and make receipt. If the admin login used fingerprint verification module it is easy for user and admin police to use this module. Sometime verification module faces some difficulties or problem that time admin police use UID module. If person known the UID the it verify the person is having driving licence or not. First two module verify the person is having driving licence or not. Last module make receipt if the person is not having driving license then traffic police make receipt this is the last step for verification.

Figure: Verification Mode

Fine receipt: This is the last step for if person is not having driving license then it pay the fine amount through bank accounts or any other option are also available to pay the amount. In fine receipt there also option for person for payment like cash payment, or online payment.
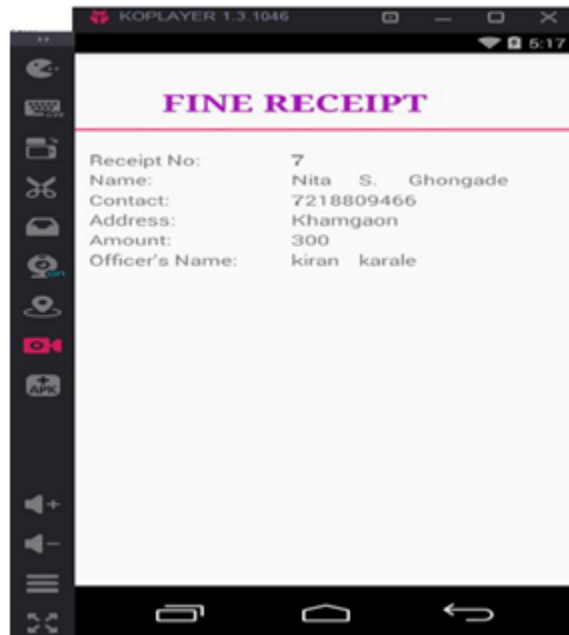

Figure: fine Receipt

VI.   CONCLUSION

It can be concluded that "Aadhaar based E-Driving license verification system" effectively verifies the driving license. This system help to traffic police for verifies driving licence person is having driving or not license if the person is not having driving license then take action immediately. It also helps the RTO officials to maintain records systematically and reduces a lot of paper work and manual efforts. It avoids corruption. Drivers are not required to carry driving license.

VII.   FUTURE SCOPE

In future This application can be developed with the different concepts like Face Identification and Number Plate Identification through image, camera, send a message to the drivers about the termination dates of documents, verifying the vehicle-related information such as RC book, emission test, insurance and etc. It is a practical project; it can be dispatched in Real-time Environment.

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