



MANAGEMENT OF VEHICLE VERIFICATION USING QR CODE

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Abstract — We are going to propose web and android application that replaces the current manual processes for verifying the vehicle documents through police. User side suitable to carry documents. We have developed an Android + web application which will be useful for peoples to help for do not carry documents.

Now a day's Vehicle security is very difficult problem in our society. For improving way of vehicle security in public places. The challenging part is when the license plate number is missing then how to find the vehicle information. To overcome this problem, we are trying to propose Vehicle Identification System which is based on QR code that will help for identification of stolen vehicle in public places like Traffic signal, parking, buildings, Society respectively.

Keywords: Android, QR Code, Encryption, Authentication, Security.

I. INTRODUCTION

In this project, Our System focuses on management of traffic police Department for no need to carry the documents of vehicles. Here, our System will use QR code technique for the verifying vehicle documents. In this system, the main actor is Admin who is authorised person at showroom, traffic police and Police department.

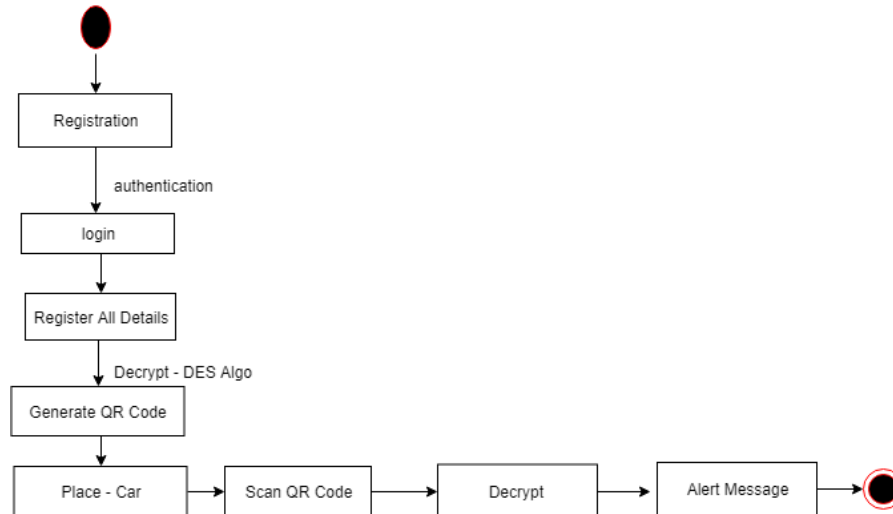
All over the India, as per the Motor Vehicles rules of the respective states, it is mandatory to that Drivers always carry the original hard copy of documents like (RC book, PUC certificate vehicle Insurance Papers). Many times drivers do not remember to carry the vehicle-related documents. When traffic police wanted to check vehicle documents at that time people need to carry vehicle documents with them otherwise they need to face problems. To get rid of this problem, we can use our proposed system, where all necessary documents of the vehicle documents are converted behind the QR code. The QR Code is fast technique which scans documents of the vehicle. We are going to use android application for scanning the vehicle documents. The user who is Traffic police will scan the QR Code. And he can verify the Documents we using same QR code of stolen vehicle identification as well. If the complaint is registered against the QR code then our system will show the pop up message like Complaint has been registered against this Vehicle. So Traffic police can find the stolen vehicles.

Limitation of Existing System

- User have to carry all the required document related to vehicle in the form of hardcopy
- Public used to put fancy number plate on their vehicle.
- It was not possible to find the stolen vehicle because user may change the number plate.

II. PROPOSED SYSTEM

In proposed system we are going to design and develop a system which helps for document verification and identification of stolen vehicle. It helps and reduces manual work and guarantees more success rate as compared to current existing system. We are going to implement this system implemented using QR code. QR code use unique identification method. All Vehicles will be associated with QR code. The data which is hidden behind the QR code is in encrypted using AES encryption algorithm. This hidden data will be use for verifying vehicle related documents vehicle owner or drivers will not face unnecessary questions during document verification by traffic police.



Step 1: In this registration phase every retailer and user as well as police has to register themselves.

The image shows two screenshots of a web application. The top screenshot is the 'Customer Registration' form, which includes fields for First Name (Neha), Last Name (waghmode), Date of Birth (02-20-1997), Gender (Male/Female), Address (pune), Phone Number (9876543410), and Email (neha@gmail.com). The bottom screenshot is the 'Vehicle Details' form, which includes fields for Driving License (987867867867), Vehicle Numer (Mh12AQ3616), Model (delta), Year (2021), Vehicle Reg. Number (uy236473), and Vehicle Reg. Date (06-09-2021). Both forms have 'Procced' and 'Reset' buttons.

Step 2: After registration the user will get QR code image which is encrypted information of user and vehicle detail information. The same set of information will be stored at the server.

Step 3: User is Registered complain against that QR Code which is stolen.

Step 4: Traffic Police or authorized user will scan and decrypt the data using QR code scanner. It will scan that QR code image to check whether authenticated user and vehicle details are there or not for verification process.

Step 5: If vehicle is stolen and complain is activated against particular QR code it will generate an alert message and alert message.

III. CONCLUSION

In this paper, we have successfully explained Vehicle document verification and detection of stolen vehicle using QR code in real life. This proposed system is very easy to use. Here we have reduced manual work. The technology used here provides high speed accuracy and does automatic recognition using QR code for stolen vehicle identification. As well as it also reduces paper work and no need to carry documents. Thus this system is beneficial to the Vehicle owners as well as Traffic Police.

IV. REFERENCES

- [1] B. Hofmann-Wellenhof, H. Lichtenegger and J. Collins, Global Positioning System: Theory and Practice, Springer-Verlag, 4th edition, 1997.
- [2] P. Bahl and V. Padmanabhan, RADAR: An in-building RF-based user location and tracking system, in Proc. of Infocom2000, Tel Aviv, Israel, Mar. 2000, vol. 2, pp. 775584.
- [3] N. Priyantha, A. Chakraborty, and H. Balakrishnan, The cricket location-support system, in Proc. of International Conference on Mobile Computing and Networking, Boston, MA, Aug. 2000, pp. 32 43.
- [4] C. Savarese, J. M. Rabaey, and J. Beutel, Locationing in distributed ad-hoc wireless sensor networks, in Proc. of ICASSP01, 2001, vol. 4, pp. 20372040.
- [5] A. Nasipuri and K. Li, A directionality based location discovery scheme for wireless sensor networks, in First ACM International Workshop on Wireless Sensor Networks and Applications, Atlanta, GA, Sept. 2002.
- [6] S. Capkun, Maher Hamdi, and J. P. Hubaux, GPS-free positioning in mobile ad-hoc networks, Cluster Computing, vol. 5, no. 2, April 2002.