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Traffic Police Management Using QR Code

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Abstract — *In this project, System mainly focuses on traffic police management for no need to carry the document of vehicles. Here, System Use QR code technique for the documentary purpose. In this sytem,the main actor is retailer, traffic police, department police. Through this actor our system become very helpful to user also and government also. Quick Response (QR) are the codes that are quite similar to the two dimensional barcodes which are basically used for storing data efficiently. These QR Codes are being vastly used in current scenario with the growing smart phone users using QR code scanners with the help of their devices. QR codes have gained vast recognition since it provides a lot of benefits. Driver needs to carry license or other documents at the time of driving and also feels the need to carry his RC book of his vehicle and other vehicle related documents but when rider forgets to carry his documents and is stopped by the traffic police then driver has to pay certain fines. In this paper we provide a system that eradicates the need of carrying several original documents driver can carry the QR code in his device. Using QR code the rider along with his documents gets authenticated*

Index Terms *- QR code.*

I. INTRODUCTION

Many accidents are happened due to infringement of traffic rules, driving the vehicle without proper license. The authorities unsupportive of verifying the identity of every driver on a road and whether the person driving a vehicle is licensed or not. Hence defiance of traffic rules has become more common. Many techniques are used for verifying the driver, namely Smart Card Based License Management using Iris Scanning Approach and Improving Fingerprint Based Access Control System Using Quick Response Code (QR Code). In Smart Card Based License Management using Iris Scanning Approach the Iris Scanning technology of biometrics is used. The biometrics is a much reliable technique than any other technology present for authentication. The system is to be mounted in a helmet (two wheelers) and on windshields (four wheelers), the driver's iris pattern is scanned continuously and processed in a specially designed system. A smart driving license is integrated with the driver's iris pattern which is already registered in the provided system. The system design is such that the engine is started only when driver matches with the iris pattern on the license. When the iris pattern does not match with the patterns in the provided database the system shutdown the engine. As the pattern is continuously scanned, a license cannot be used by another personality. That's why it's become risky to rely on single authentication technique. QR code is generally used for encoding information such that people can conveniently use mobile phone's camera to scan the encoded QR code and decode information through a QR code reader. In this paper, we have improved the verification method of the driver. In this new method, we simply store the driver and RC book information in a QR code. And the users need to carry only this QR code in her/his Smartphone. And when they show their QR code to the Traffic police, traffic police scans this code and send to the RTO. Then RTO verifies the user through the provided QR code. After that RTO sends verification result to the traffic police.

II. LITERATURE SURVEY

1.RADAR: An in-building RF-based user location and tracking system
Authors: P. Bahl and V. Padmanabhan

Description:
The proliferation of mobile computing devices and local-area wireless networks has fostered a growing interest in location-aware systems and services. In this paper we present RADAR, a radio-frequency (RF) based system for locating and tracking users inside buildings. RADAR operates by recording and processing signal strength information at multiple base stations positioned to provide overlapping coverage in the area of interest. It combines empirical measurements with signal propagation modeling to determine user location and thereby enable location aware services and applications. We present experimental results that demonstrate the ability of RADAR to estimate user location with a high degree of accuracy.

2. Directionality based location discovery scheme for wireless sensor networks
Authors: A. Nasipuri and K. Li

Description:
A sensor network is a large ad hoc network of densely distributed sensors that are equipped with low power wireless transceivers. Such networks can be applied for cooperative signal detection, monitoring, and tracking, and are especially

useful for applications in remote or hazardous locations. This paper addresses the problem of location discovery at the sensor nodes, which is one of the central design challenges in sensor networks. We present a new method by which a sensor node can determine its location by listening to wireless transmissions from three or more fixed beacon nodes. The proposed method is based on an angle-of-arrival estimation technique that does not increase the complexity or cost of construction of the sensor nodes. We present the performance of the proposed method obtained from computer simulations.

3. GPS-free positioning in mobile ad-hoc networks
Authors: S. Capkun, Maher Hamdi, and J. P. Hubaux

Description:
In this paper we consider the problem of node positioning in ad-hoc networks. We propose a distributed, infrastructure-free positioning algorithm that does not rely on Global Positioning System (GPS). The algorithm uses the distances between the nodes to build a relative coordinate system in which the node positions are computed in two dimensions. The main contribution of this work is to define and compute relative positions of the nodes in an ad-hoc network without using GPS. We further explain how the proposed approach can be applied to wide area ad-hoc networks.

4. Overview of Radiolocation CDMA Cellular Systems
AUTHORS: lames J. Caffery, Jr. and Gordon L. Stuber

Description:
Applications for the location of subscribers of wireless services continue to expand. Consequently, location techniques for wireless technologies are being investigated. With code-division multiple access (CDMA) being deployed by a variety of cellular and PCS providers, developing an approach for location in CDMA networks is imperative. This article discusses the applications of location technology, the methods available for its implementation in CDMA networks, and the problems , sixth section. sources of error in the that are encountered when using CDMA networks for positioning.

III. PROPOSE SYSTEM

In the proposed system, there are three actors like Retailer, Traffic police, police department. Here, Retailer form of all technical documentaries related to the user vehicle. Here, retailers generate the QR code of vehicle documentary. Traffic police, Scan that QR code and retrieve the information in the form of text file. Department police apply tagging algorithm for the extraction purpose and send the verification result to traffic police for further checking.

Advantages of Proposed:-

1. QR code technology make easy the task for User and Police department also.
2. Efficiency is very high.
3. more user friendly.
4. Time complexity is very low.

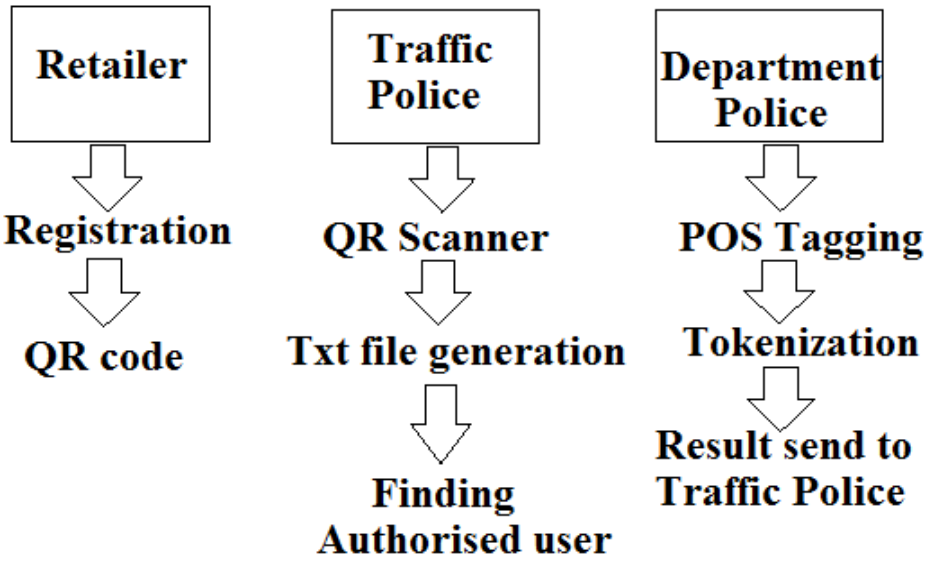

Fig.1 System Architecture

IV. MATHEMATICAL MODEL

Inputs:

Ri for retailer
Ti for traffic police
Di for department of police

Procedure:

Step 1: Retailer
Retailer first registration.
Ri =(Ri;1; Ri;2; : : : ; Ri;k);
Then QR Code generated

Step 2: Traffic Police
The traffic police scanner scans the QR code.
Ti=(Ti;1;Ti;2…….Ti;k);
QR code generate the text file generate. Then finding authorized user to database

Step 3: Department of traffic police
In this system, POS tagging algorithm used. Then tokenization applied.
Result sends to the traffic police

Output: Finally, traffic police scanner scan the QR code then text file generate .find the authorized user.

V. SUMMERY AND CONCLUSION

By using this application it is not necessary to carry all the documents and license every time. Simply you have to carry QR code in your Smartphone. By using our system the driver goes through the verification process through a reliable and efficient manner. QR code is being widely used for implanting messages such that people can easily use their Smartphone's to capture the QR code and gain relevant data from OR code reader. User can get QR code by simply registering with the system.

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