DETECTION OF STOLEN VEHICLE THROUGH QR CODE

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Abstract:-The Vehicle security is an important issue in our society. For improving methods of vehicle security in public and private places. When the license plate number is missing or unknown then how to find the vehicle information is really a big challenge. To overcome this issue, a Vehicle Identification System is proposed which is a QR code based system that will help in identifying the vehicle in public or private places like Traffic signal and Society, buildings, parking respectively. This quick and robust system will propose to detect and describe features of a vehicle image, specifically in an android application using QR code mounted on vehicles. After description of QR code it fires the query on database for searching information in the database. Real time android applications are the real challenges for this system. By using this system vehicle tracking and tracing is going to become comparatively easy task for the people who may or may not be technically competent.

Keywords: - QR Code, Automatic traffic enforcement cameras, Business intelligence.

Introduction:

Many existing wireless location systems, like the world Positioning System (GPS) and Loran C, build use of measuring instrument techniques. With these technologies the MS formulates its own position, which might be relayed to a central website. Some approaches use a cellular network because the transport mechanism for relaying the situation estimate. As another to these approaches, cellular networks are often used because the sole means of providing location services, wherever the MSs Area unit placed by measure the signals traveling to and from a collection of fixed cellular base stations (BSs). The signal measurements are used, for instance, to work out the length and/or direction of the individual radio methods, so the MS position is computed from geometric relationships. Radiolocation systems are often enforced in one amongst 2 ways. With the primary approach, the MS uses signals transmitted by the BSs to calculate its own position, as in GPS. With the second approach, the BSs live the signals transmitted by the MS and relay them to a central website for process. The second approach has the advantage of not requiring any modifications or specialized instrumentality within the MS telephone set, thus accommodating the big pool of handsets already in use in existing cellular networks.

Motivation:-

The Vehicle identification is a crucial space of analysis for rising strategies of auto recognition publicly and personal places. GPS chase isn't offered and also the range plate vehicleplate registration code} number is missing or unknown then a way to notice the vehicle data is de facto a giant challenge. Real time robot applications area unit the important challenges for this technique for vehicle chase and tracing has become necessary for those who could or might not be technically competent.

Literature Survey:

Paper Name: - RADAR: An in-building RF-based user location and tracking system.
Author: P. Bahl and V. Padmanabhan (2015).
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 system
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. Experimental results are presented that demonstrate the ability of RADAR to estimate user location with a high degree of accuracy.

Paper Name: - directionality based location discovery scheme for wireless sensor networks.
Author: A. Nasipuri and K. Li (2013).
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 system addresses the problem of location discovery at the sensor nodes, which is one of the central design challenges in sensor networks. A new method is presented 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. This presents the performance of the proposed method obtained from computer simulations.

Paper Name: - GPS-free positioning in mobile ad-hoc networks.
Author: S. Capkun, Maher Hamdi, and J. P. Hubaux (2015).
Description: In this system considered the problem of node positioning in ad-hoc networks. Adistributed system is proposed, infrastructure-free positioning algorithm that doesnot rely on Global Positioning System (GPS). The algorithm

Architecture Diagram:

uses the distances betweenthe nodes to build a relative coordinate system in which the node positions arecomputed in two dimensions. The main contribution of this work is to define andcompute relative positions of the nodes in an ad-hoc network without using GPS.Further explain how the proposed approach can be applied to wide area ad-hoc networks.

Paper Name: -Overview of Radiolocation CDMA Cellular Systems.
Author: lames J. Caffery, Jr. and Gordon L. Stuber(2015).
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 cellularand PCS providers, developing an approach for location in CDMA networks is imperative.This article discusses the applications of location technology, the methodsavailable for its implementation in CDMA networks, and the problems, sixth section.Sources of error in that are encountered when using CDMA networks forpositioning.

Proposed System:-
In the planned system associate degree application that replaces the present manual processes for checking the vehicle documentary through police is planned. User facet appropriate to hold documents. associate degree mechanical man + net application is intended named Detection of purloined Vehicle through QR Code which is able to be useful for Police/Authorized persons at piece of land to assist for locating purloined Vehicles.
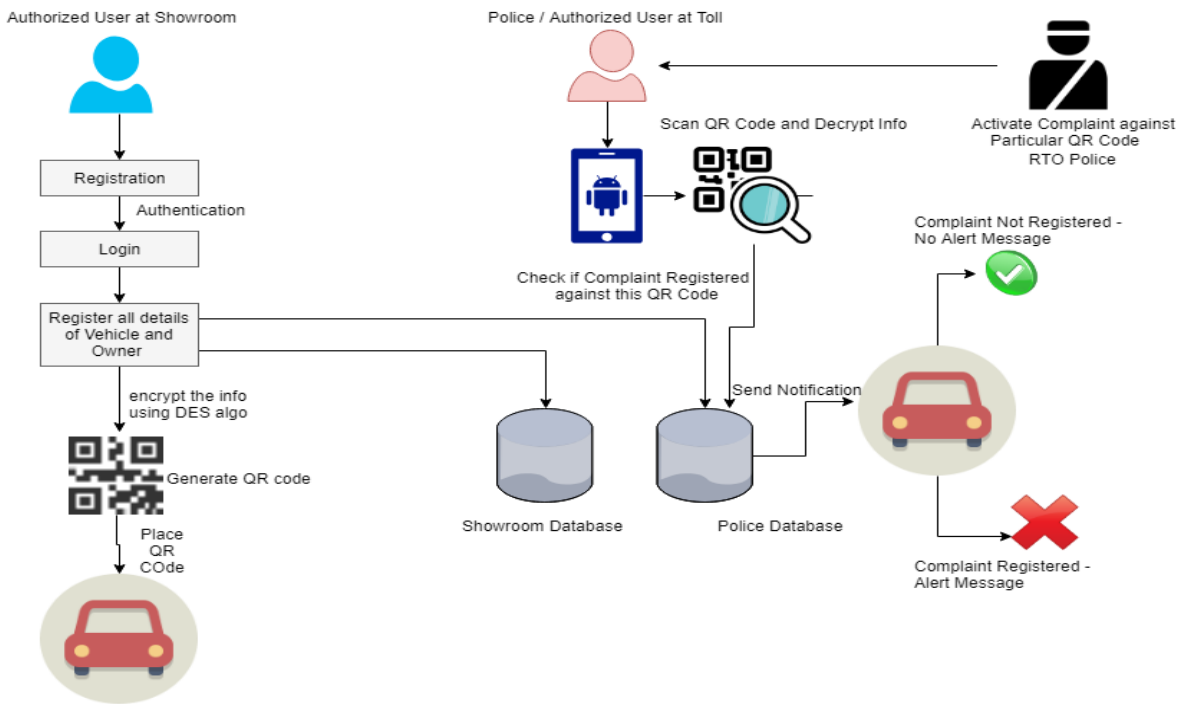
Algorithm:-

AES - Advanced Encryption Standard

AES steps of encryption for a 128-bit block:
1. Derive the set of round keys from the cipher key.
2. Initialize the state array with the block data (plaintext).
3. Add the initial round key to the starting state array.
4. Perform nine rounds of state manipulation.

5. Perform the tenth and final round of state manipulation.
6. Copy the final state array out as the encrypted data (ciphertext).

Note:

AES is a non-Feistel cipher that encrypts and decrypts a data block of 128 bits. It uses 10, 12, or 14 rounds. The key size, which can be 128, 192, or 256 bits, depends on the number of rounds.

Screen Shots:-

Stolen Vehicle Detection System

Vehicle Management System

Home　　Showroom Admin　　RTO

Admin Login

Email [   ]
Password [   ]

[Login]　[Reset]

Vehicle Management System

Home　　Showroom Admin　　RTO

Admin Login

Email [admin]
Password [•••••]

[Login]　[Reset]

Vehicle Management System

Home　　Logout

Customer Registration

First Name [bhavna]　Last Name [singh]
Date of Birth [04-24-1997]
Gender : Male ○　Female ◉
Addresss [chikhali]
Phone Number [9966332255]
Email [bhavna@gmail.com]

[Procced]　[Reset]

Activate Windows
Go to Settings to activate Windows.

Conclusion:

As the Smartphones with camera device is obtaining additional advanced, recognition of barcode supported Smartphone is obtaining additional vital and practical; the term here that is mentioned new high speed, high- accuracy automatic recognition methodology for recognizing QR Code symbols any conditions for vehicle identification. The popularity test conjointly showed the planned methodology is effective for the vehicle identification using QR Code image recognition based mostly system.

Reference:-

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