ISSN: 2277-9655
Impact Factor: 5.164
CODEN: IJESS7

IJESRT
INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH TECHNOLOGY

REVIEW ON OR-VALUES DEVELOPMENT OF AUTOMATIC INTELLIGENT ASSISTANTS SYSTEM & SECURITY

Lalit Shriram Gawande [*1], Pragati Patil [2]
[*] Computer Science & Engineering, Gaikwad-Patil College of Engineering, India

DOI: 10.5281/zenodo.1247045

ABSTRACT
This paper describes how a combined modeling and simulation study was successfully executed for the design of a toll booth. As to the traffic congestion of toll booth system, according to the input and output of the whole system, the authors develop an optimizing model for toll system with "QR-CODE based Development of Automatic Intelligent Assistants System & Security " This model is able to solve the problem and gain the optimization solution rapidly. It's based smart QR-CODES has been used for self payment service. Vehicle like car, trucks or a trailer trucks does not possess similar weight. This concept has been implemented with the use of Different QR-CODES to determine the vehicles weight and accordingly defining the vehicles type & it's making type with full data of driver also. This Automatic Intelligent Assistants System & Security system will be a state of the art technology for the areas with high traffic in toll booth by omitting long queues and fuel wastage for the users and also reducing human error.

KEYWORDS: toll booth, Intelligent Assistants, QR-CODES, Security system, high traffic .

I. INTRODUCTION
All content should be written in English and should be in 1 column.
India is one of the fastest developing nations in the world today. Road transportation has been a primary choice now a day. The number of vehicles in last 21 years has grown rapidly massive. According to a survey report only 10509 vehicles was registered in 1985 and 364890 vehicles have been registered in 2015 [open government data]. Most tool plaza in India in manually operated. The average waiting time in this manually operated toll booth in more than 10minutes [urban mobility information] which costs a lot of fuel and time wastage. The improvement of the manual toll collection system has become necessity.

II. LITERAURE SURVEY
The aim of this paper is to propose an ideal and timesaving method for vehicles to pass through toll booths Choosing the best tollbooth to move out of the toll booth quickly, has become a tough task and is error prone. The proposed system uses crowd sourcing to maintain waiting time for each tollbooth, as a result travelers are provided with the best tollbooth in a toll booth. This scheme reduces the waiting time in the queue, as a result, people can drive through tollplazas swiftly. Travelers passing the toll booth act as the crowd that cooperate in choosing the best lane and help maintain the waiting time of each tollbooth and adjust queue parameters. This paper describes how a combined modeling and simulation study was successfully executed for the design of a toll booth. As to the traffic congestion of toll booth system, according to the input and output of the whole system, the authors develop an optimizing model for toll system-Black Box Model. This model is able to solve the problem and gain the optimization solution rapidly. Particular attention is paid to the toll booth on Garden State Parkway (GSP), New Jersey, US. The authors use simulation in the toll system to compare and evaluate the model .The solution of the simulation experiment indicates that the result of the problem calculated by the Black Box Model is the optimal result conformed to the actual situation. Consequently, the optimization design of the toll booth is obtained for GSP.

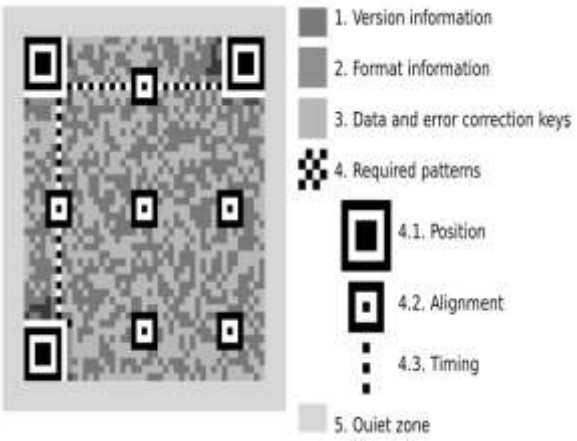
Smart Weight Based Toll Collection & Vehicle

ISSN: 2277-9655
Impact Factor: 5.164
CODEN: IJESS7

Detection During Collision using RFID" addresses the problems faced at the toll booth. The system also identifies the vehicles against which stolen and accident cases are registered using RFID. Initially user has to create an account and register his RFID number at central database using the mobile application. When a vehicle with RFID tag passes through Toll Collection Unit (TCU) it is classified as a passenger carrying vehicle or goods carrying vehicle based on its RFID Number. If a vehicle is detected as goods carrying vehicle it is weighed and if it is overloaded then charged with extra toll. RFID Number is then passed to Central Server Unit (CSU) where a balance is deducted from user account after which CSU indicate TCU to open barricade and allow the vehicle to pass. If the vehicle is identified as stolen vehicle by CSU, it will indicate TCU not to open the barricade. In order to identify the culprit in hit and run case collision detection mechanism is implemented using vibration sensor. Here we study the shape, size, and merging pattern of the area following the toll barrier, from the five aspects including the accident prevention, throughput, cost, service time and passing capacity. We build the corresponding model of the new single- in and double out toll station to measure the optimal solution of the toll booth on the basis of a series of methods such as the factor analysis, principal component analysis , linear regression, M/G/K queue theory , and so on, as well as the using of the software, such as MATLAB, VISUAL, EXCEL, VISSIM, and so on.

III. PROPOSED SYSTEM ARCHITECTURE

Fast Response values the advantage is that you can store up to a very large information on a QR values than on a conventional horizontal barcode. In addition, QR values can be scanned from any direction for 360 degrees. An Android user can use something like QR values Reader. QR values are 2-dimensional, which results in them having a square filled with data. There are software helping the values being read correctly. The most common QR values type is model 2, which is broken down in the following information identifiers:



Version and format data are important for the scanning to know what kind of data to expect. Meanwhile, the data can be slightly smeared or missing and still be readable. Upside down will still work! This is a courtesy of the position pattern that allow the values to be read from any direction in 360 degrees. Meanwhile, the alignment patterns are used to assist in navigation of larger values and the timing patterns are used to determine the size of modules. The progress of the QR values. Yes, there is technological advancement. Smartphone cameras are getting better and there is more CPU power than ever before to process the values. This means, your phone does not need to focus endlessly and the result is immediate.

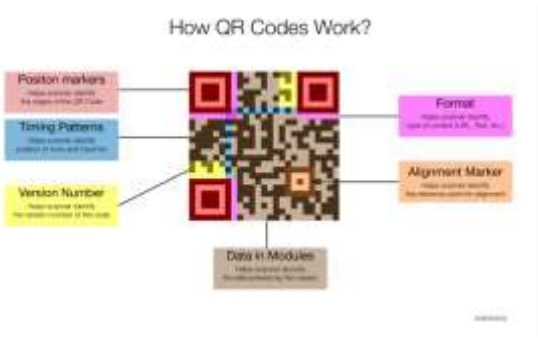
Throughout the years more and more types of QR values have been introduced. They can further be divided into different capacity versions, ranging from 1 to 40. The QR values s started with the model 1 and quickly evolved, upgrading to model 2. The main difference of model 2 to model 1 is the addition of the alignment pattern, which gives it higher capacity. Model 1 could hold up to 667 alphanumeric characters, while model 2 can reach up to 4,296 alphanumeric characters. One alphanumeric character is either a character from A to Z or a number from 0 to 9. With the need of special characters like,/$§% or öÖäÄüÄß, the capacity shrinks down to 2.956 Bytes. But that's still plenty. Ten years after creation, in 2004, the micro QR has been released. This particular values can be used only for very small collections of data, but has the advantage of being very small and needing less padding around it. The maximum capacity is 15 Bytes. In 2008, two new types of values have

ISSN: 2277-9655
Impact Factor: 5.164
CODEN: IJESS7

been created: QR and SQRC. QR allows the shape of the values to be squared *or* rectangular and inverted colors (white values on dark background). With the slightly different assembly, the QR can hold far more data than the commonly used QR values. SQRC brings an option of sharing. It looks just like a regular QR values to find , but can hold additional private information only readable to a special SQRC-ready scanner. This allows storing of two control levels in one values, bringing different results based on the scanner. This kind of a values can be useful for sharing certain internal information between coworkers or other exclusive limited content (e.g. special discounts or coupons for loyal customers). Due to a very limited amount of people being able to get the privately shared content, the SQRC is not meant to be widespread. If you like it fancy – the newest addition might be something for you: the Frame type QR. Frame type QRs come with a canvas area that lets users include pictures or graphics inside the values, making it more modifiable than ever. They were created concerning the promotional uses and simplifying the authenticity judgments Quick Response values are the in marketing tools for online payment. These are devised to bridge the gap between offline and online marketing. It was initially confined to automobile industry, later extended to smart phones. With QR values reader we can scan and read the values easily.

The tiny square dot QR values is known as *module*. A QR values system includes a QR values *printer* and a *scanner*. To generate QR values, one needs a special printer and QR values creation software. There are various factors that determine the size of a QR values. QR values have symbol versions from 1 to 40. It determines the *data capacity* of the values. So the more the data stored, the bigger the size of the QR values. QR values have four levels of error-correction capability, level L, M, Q and H in ascending order. With error correction, the user can read and retrieve data from a damaged QR values.

In our country , one of the first companies to use QR values in advertising was Ford, which used it to promote Ford Figo. Users were asked to download an application that read QRvalues by sending a text message. They could then play a video of the Figo on their device. QR values is a 2D Barcode that has the information in the following type:



A QR values can be generated using an online QR values Generator. A QR values Scanner can decode this information and show the information to the user. For detailed information, see an article I recently wrote on this subject. A QR values process by encoding value in a certain way so scanning software can interpret the results. For example, normal barcodes on products are like 1D barcodes. The lines are different widths that correspond to numbers. Software interprets those line widths as numbers. Same with the QR values; the location of each block is interpreted by the software and the combination of a bunch of blocks combine to represent certain characters.

The growth of mobile payments has become inevitable. By the World Payment Report of 2015, the number of global online payment transactions is anticipated to grow by 61 per cent annually till 2016. Thus, in order to capitalize this anticipated growth, operators are exploring options beyond net banking, credit cards and e-payments. Mobile payments are the need of the hour to attract a customer's in-store felling. The in-store payments experience has already been given a boost with the evolution of mobile payments, which can be enabled in two ways – NFC and QRvaluess.

ISSN: 2277-9655
Impact Factor: 5.164
CODEN: IJESS7

IV. QR VALUES-BASED PAYMENTS

QR-code based payment is advanced type of contactless payment system. It require consumers to use a Smartphone application which enables them to scan, store and share their values scans in order to allow individuals and business to make and accept payments respectively via QR values on their smart devices. What this implies is that now, even an average person can de-code a QR values, without any special equipment. One can walk into a place of business, find a QRvalues on an item, scan it with his Smartphone and can have immediate access to all information stored in that barcode. In comparison to NFC, QRvaluess are a much cost-effective and feasible option for the payments system today. Enabling QR-code based mobile payments primarily requires software updates no separate hardware.

V. CONCLUSION

This paper effectively reduces the time and a resource spent waiting in toll booths and delivers the best tollbooth a traveler can take, consequently making toll booths greener. QR-code is best utilized in manual toll booths which are crowded and it is difficult to choose a tollbooth by merely seeing the line of vehicles in that toll booth. Also, the system can further be expanded to different mobile platforms, intimation on the denomination of the tol land voice commands to guide tollbooth selection can be incorporated. Although QR-code seems to be a budding application, the benefit of using this system is tremendous, especially in cities.

VI. REFERENCES

1. Navnath Dahifale, Sachin kadam, Swapnil Sabale, ChandanChaubey4 – "RFID based Automatic Toll- Tax Gatheringsystem" Volume3 Issue 2, May 2015.
2. Author A.usha kiran – "Design of Electronic Toll Collection (Etc) System on Arm – 7 using RFID technology" Volume4 Issue 9 – Sep 2013.
3. Adesh Mhatre, Shilpesh Agre, Anil Avhad, Dhruv Gandhi, Nilesh Patil – "Electronic Toll Collection System using Wi-Fi Tehnology" Volume:3 Issue:4 2015.
4. Aditi Dambe, Upsana gandhe, Varsha Bendre – "AutomaticPenalty Charging for Violation of Traffic laws" vol.2, Issue, Feb 2013.
5. Sivakumar.R, Vignesh.G, Vishal Narayanan, Prakash.S,Sivakumar.V-"Automated Traffic Light Control System and Stolen vehicle Detection"May20,2016.
6. G.K. Andurkar, V.R. Ramteke,"Smart Highway Electronic Toll Collection System," International Journal of Innovative Research in Computer and Communication EngineeringVol. 3, Issue 5, May 2015
7. M.Rajeswari, S.Chandana, D.VPruthvi, SarithaS.P, Ramya "Collision Detection And Avoidance Using Intelligent Vehicle Communication Protocol," National Conference on Recent Advances in Information & Communication Engineering
8. R.Aishvarya, S.Poornima, K.Pradeepa, T.Subashini4, K.P.Lavanya "Automatic and Effective Tracking of Hit & Run Misbehavior Driver with Emergency Ambulance Support,"International Journalja of Advanced Research in Electrical, Electronics and Instrumentation Engineering Vol. 5, Issue 3, March 2016.
9. N.Poornima, M.P.Arvindhan, R.Karthikeyan, S.Gokul Raj "Automated Toll booth Verification Syste for an Automobile at a Check Point," International Journal of Engineering Development and Research 2015.
10. Yogesh Kamble, Ajinkya Abhyankar, Tanmay Pradhan ,Aditya Thorat, "Check post and Toll Tax Collection using RFID," International Journal of Innovative Science, Engineering & Technology, Vol.1Issue 2, April 2014
11. Mr. A. Kamaraj, Ms. K. Radha, Ms. M. Priyanka Ms. M. Punitha. "Intelligent Transport System Using Integrated GPS Optimized Reader" 2016 Second International Conference on Science Technology Engineering and Management (ICONSTEM
12. https://www.reference.com/vehicles/averageweight- car-e7e452a5a7eb7a7c.uhammad Tahir Qadri, Muhammad Asif. "Automatic Number Plate Recognition System for Vehicle Identification Using Optical Character Recognition": 2009 International Conference on Education Technology and Computer
13. Amirgaliyev Beibut, Kairanbay Magzhan, Kenshimov Chingiz. "Effective Algorithms and Methods for Automatic Number Plate Recognition": Application of Information and Communication Technologies (AICT), 2014 IEEE 8th International Conference.
14. S-L. Chang, L.-S. Chen, Y.-C. Chung, and S.-W. Chen, "Automatic license plate recognition," IEEE Transaction on Intelligent Transportation. System". :vol. 5, no. 1, pp. 42–53, Mar. 2004