Vehicle Registration Using Aadhar

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Abstract: - As the number of vehicles are getting increased on the roads and corruption is prevailing in our society the use of correct automated services with correct and authorities control over those system is necessary nowadays. The idea of developing SMART-E-RTO management system, Automation of Regional Transport Office is of great use. As number of vehicles are growing with increasing population at the same time the issues in registration of new vehicle, driving license registration, etc. are getting increased. Because of the increased use of two wheelers and four wheelers in everyone's lives the RTO employees are having a burden of paper work in issuing new registrations to vehicles, driving license registration etc., At the same time the customer also faces so many issues like late arrival of their documents, waiting in long ques etc. Therefore, all these problems can be solved by the use of an automated system. This paper presents basically how to automate the process of registration certificate generation.

Keywords: RTO, Registration Certificate automated registration, Regional Transport Office.

I. Introduction

Today when someone buys a new vehicle – four wheeler or two wheelers the registration certificate and insurance applications are the duties of the dealer itself. To complete all the verifications and finally applying for both of the important documents dealer of the showroom from where the vehicle is bought is seek responsible. For the registration certificate an official from regional transport office daily visits the dealer showroom to collect the information of every vehicle sold and also taking the chassis number along with him on a piece of paper by scribbling it from a pencil (done for security purposes). Then this official submits all the processed documents to the regional transport office (RTO) a thereafter processing everything the registration certificate is generated and send to the owner home by the method of post. The whole process is a tedious job, involves too much paper work, and is time consuming. Therefore, there is a strong need to automate the process by use of technology. We all know existing RTO office work is how much lengthy as well as very time consuming process. In many villages, there is only one-day camp of RTO and the people who want license they should remain present on that day if they missed that day they have to go to the district RTO office.

II. Objectives

- To create a web application to be used in place of the old system.
- To maintain and improve the skill management for the department personnel.
- To Provide easiest and efficient way for completion of RTO work.

- To ensure transparency in the day-to-day management and administration of the officials in RTO department.

III. Statement of The Problem

Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.

IV. Literature Survey

[1] M. Poliak, M. Mrnikova at.el states that ,the mission of the specialized requirements of social law in road transport is to ensure that the driver's work regime is in line with the specific requirements of the road transport process and also contributes to the improvement of road safety. Currently, the requirements of social legislation in the EU and the AETR contracting states are largely unclear from the driver's position. The aim of the contribution is to verify, on the basis of an analysis of social requirements for drivers in other countries, the hypothesis that regulatory requirements in EU and AETR contracting states are considerably more complicated than in selected other countries. The contribution analyses the impact of the limitations of social law in road transport on the work of drivers. It analyses requirements for freight transport drivers in the EU and compares them with requirements in chosen countries (USA, Canada, Australia, New Zealand) and with requirements imposed on AETR contracting parties. The article also points to the fact that some of the requirements of social legislation in road waste are causing a reduction in road safety.

[2] Kai Xu, Yue Gao et al states that Electric vehicles have the feature of being quiet when running, thus may led to high potential risk of traffic accident between cars and pedestrians. To avoid pedestrian injuries, many country tends to force auto manufacturers to equip their cars an acoustic vehicle alerting system for indication purpose. This paper intend to give a brief introduction of related standards and regulations developed or underway, deliver comprehensive comparison in technical aspects, and finally offers a broad view of the state of art of this realm.

[3] A. S. Kabanov, V. N. Azarov and V. P et,al states in The article deals with the problems associated with the widespread introduction of digital and information technologies in various sectors of the economy of the Russian Federation, including in the transport and logistics sector. Digitalization and informatization of the transport complex, logistics processes that were perceived not so long ago as something far from reality, today are the basis of modern transport business processes prove their necessity and efficiency. The paper analyzes various informational technical transport systems (ITS) of transport and transport infrastructure management, and shows that the implementation process is not quite systematic on Russian roads. It is shown that the lack of common standards and technological platforms leads to the emergence of a number of problems, such as electromagnetic and information incompatibility, unacceptable threats and risks, cyber security, organizational disunity, inconsistency and chaos of ITS management. It is shown that to create and ITS transport industry, it is necessary to promote a unified set of standards, a single technological platform, use the principles of system engineering and build an IT architecture and infrastructure. Not timely adoption of integration measures may further lead to a traffic collapse, or Russia's lag in the development of intelligent transport and transport infrastructure.

[4] I. M. Costea, F. C. Nemtanu et,al describes a modern traffic monitoring system designed to optimize road traffic flow, while ensuring mobility and access with the aim of meeting the current and future necessities for road travel. Furthermore, the proposed system complies with the requirements for rational use of urban land and the regulation on environmental protection. The importance of finding such solution derives from the current problems faced by the urban road traffic, such as congestions, pollution, security issues. It is with the purpose of solving traffic flow and security problems that the authors are proposing in this paper the implementation of an innovative system utilizing new technologies for real-time collecting, organizing and transmitting of information about traffic and weather conditions. To this end, data collection and processing were performed using LabVIEW programming.

[5] M. A. Raposo, B. Ciuffo, et,al states that Automated and connected vehicles hold significant promise in the reduction of road accidents, traffic congestion and energy use. However, the road transport system is complex and the potential impacts of these vehicles, which could contribute to totally reshape the vehicle use paradigm, are mostly uncertain and could even have undesirable consequences. A significant increase in travel demand is foreseen to occur as these vehicles provide more comfort and a greater accessibility to user groups such as the elderly, young or disabled. This circumstance might require a totally different management of the road transport system. From higher levels of coordination up to the complete control of the system as it already happens in other transport systems like aviation and, in part, maritime, might be required to ensure that the performances of the road system will not gradually collapse. In spite of the potential negative implications of a large-scale deployment of automated vehicles, Public Authorities are mainly focusing their attention on providing the framework in which industry and operators can deploy new technologies and systems. However, as soon as the share of vehicles with higher degrees of automation will increase, the need for different approaches to traffic monitoring and control will immediately emerge. In the present paper the concept of Coordinated Automated Road Transport (C2ART) is presented as an evolution of the road transport management concept in the presence of connected and automated vehicles. The objective of the present work is to collect in a structured way the state of the current knowledge and practice in order to frame different future scenarios that can help policy makers to better plan their strategy as well as assist the academic world to support the evolution by providing the tools that are necessary in the attempt to implement a fully Automated Road Transport system.

[6] M. A. Afiq bin Ramli, et,al says Several measures, such as reduced lighting, may be adopted to minimise energy consumption while providing an optimal and safe level of road lighting. One approach to evaluate the safety impact of reduced road lighting is by using Geographical Information System (GIS) to identify road sections with low level of illumination and high risk of road traffic accidents. The GIS approach required a cost-effective and efficient system to measure the level of lighting provision at close intervals along a road network. This paper presents the development and validation of a road illumination measurement system developed for this purpose. The system is based on TSL2561 illumination sensors, u-blox NEO-6M GPS module, Robotdyn Arduino Mega Pro Embed and Catalex microSD shield. The results showed that the measurements obtained

from the developed system followed a similar trend as a commercial light meter, and that it could be used to identify road sections with relatively low levels of illumination for further safety analysis using GIS.

[7] W. Guo, D. Brennan et ,al describes one aspect of ongoing research at Newcastle which has been researching the decline in performance of some drivers with age and exploring whether Intelligent Transport Systems and services could have a role to play in supporting older drivers to continue driving safer for longer. The findings presented here are focused on one such service, Intelligent Speed Control Technology - which addresses one of the most commonly reported problems by older drivers themselves, speeding on urban roads.

V.   Existing System

Existing RTO Office work is very complex, waste of time & much more Real-life problem for example if a person wants to make driving license then he or she first goes to RTO office and then they give work to the agent and then agent complete their work by taking a lot of money. In this way when passing his or her vehicle number, insurance of that vehicle, etc. are taking a lot of time. And nowadays each and every person is in hurry so by analyzing and considering these problems we are developing one web application which overcomes this problem and get a solution in an efficient way.

VI.   Proposed Work

Here, we are developing a web application for RTO so here we give a brief description of our project overview. First, we provide familiar environment means the needy user can access this site for their work purpose related to RTO. First user needs to fill the registration form so that we provide authentication to him and then user can choose option he wants means if he selects to making a driving license then we provide driving license requirement details and give available date to him so that he come on that date direct give the test so that he can save his time as well as money.

If user wants to pass his vehicle number, then also it takes time in old system but here we provide facility that user he buys new vehicle he should have to first register on our site and fill all the required and importance details of vehicle and we give this details to RTO office directly so that this work will get complete within less time and the user get his number template easily.
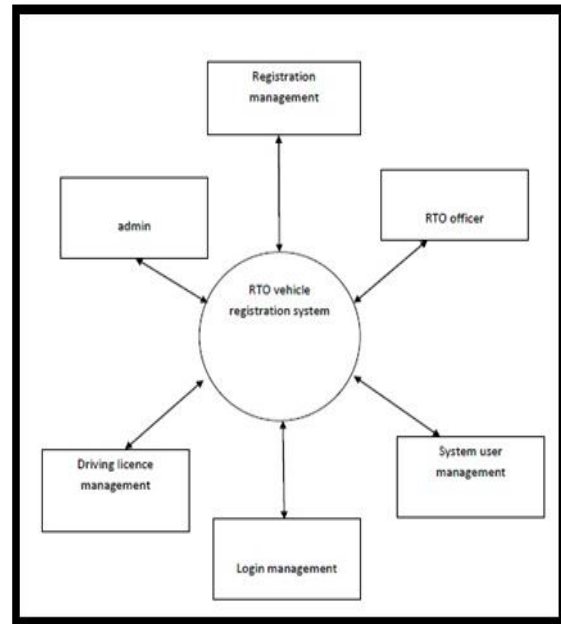

Fig.1. Proposed Diagram

The administrator is providing for authentication purpose as well as it handles all the database of RTO and manages all the process. He has authority to approved learning license number, permanent license number; pass the vehicle registration number, etc. Facilities are provided by the administrator.

VII.   Description About Modules

RTO Module:

- This contains central database which contains all the information of the buyers of different vehicles, date wise and showroom wise.
- Admin / RTO officials can access through RTO module.

Dealer Module:

Dealer will send the database of every vehicle sold and all the other details to the regional transport office on the daily basis.

User Module/User-Interface:

User will login through the credentials in the system and hence fill the necessary forms, pay the appropriate fees and hence get his registration certificate.

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Advantages:

- Time efficient method.
- Registration certificate would be generated online, so it will be safe and can be downloaded again, if lost.
- Relaxation from the paper work.
- No need of an official from RTO to visit the dealer.
- Owner need not visit the RTO to apply for the registration certificate.
- Corruption will not prevail.

VIII. Conclusion

The RTO management system which is proposed in this report can be an effective tool which will save a lot of time & money of common people. The main objective behind developing this system is to automate the process of vehicle registration number so that a person can generate a registration number for his/her new vehicle at home.

This project will be successfully implemented via using technologies like Servlet, JSP, JDBC, HTML, CSS, MVC architecture etc. The database which is going to be used is MySQL & the project contains two database's namely

- Showroom dealer database &RTO database.
- This report attempts to summarize what is the project all about, technologies used, databases being used, the main cause for which the system is to be developed and the brief of technicalities which are required to make the project functional.

IX. Future Enhancement

This system is also helpful for Traffic police also. The traffic police to be more effective in controlling repeat violators of traffic rules. Traffic Police have the database of registration numbers as well as the history of driving license holders. When a traffic policeman would enter the details of any vehicle caught violating traffic rules, it would give the complete details of that particular vehicle including the name and address of the owner and the make, model and other details of the vehicle. Not only this, the details of the driving license holder would also be available. Therefore, enhanced penalties would be imposed for repetition of violation of traffic rules. Fake registration plates, if any, would be detected immediately.

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