Self-Activated Congestion System and Self-Automated Penalty System for Signal Jumping Using Rfid

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Abstract

The task aims at designing an shrewd traffic manage machine which is capable of estimating visitors density using smoke sensors and then rely the wide variety of vehicles with the help of IR sensors and also if every person jumps the sign, the system routinely sends the violation info and also the fined amount to the vehicle proprietor using GSM Modem. The machine uses smoke sensors, IR sensors, RFID Tag, RFID Reader, GSM Modem and High energy LED's as visitors lighting fixtures and microcontroller. Automation has created a bigger hype in the electronics. The important purpose for this hype is automation gives greater advantages like accuracy, power communication, reliability and extra over the automatic structures do not require any human attention. Any one of the necessities stated above demands for the layout of an automated tool. The electricity communication is very crucial in the present day state of affairs and need to be done to a most quantity in which ever it's far feasible. Energy may be correctly conserved if we are able to manage the site visitors lighting fixtures at the highways by way of glowing them in accordance with time postpone

Keywords: - Smoke Sensor, IR Sensor, RFID,PCB design

1. INTRODUCTION

In this project, whilst the smoke sensor's threshold fee exceeds 8000ppm, the green light gets ON automatically. It remains in ON nation for a predefined quantity of time. The number of motors is counted the usage of IR sensors. After the predefined amount, the signal turns to red. Here each automobile has were given an RFID Tag that's read by the RFID Reader. Every RFID Tag has were given a unique ID. The vehicle's corresponding RFID ID information aredispatched to the Microcontroller. So if any person tries to jump the sign, an SMS is dispatched to that particular car owner with the name of the sign wherein the car has violated the visitors policies along with the quantity fined. The PIC Microcontroller used right here is programmed via Embedded C language.

2. LITERATURE SURVEY

Groft, Eric et al, "Smart meter parking system"; United States Patent20070016539.

Considering the growth of urban population and traffic congestion, clever parking is continually a strategic difficulty to work on, not only in the research subject, but additionally from economic hobbies. Thanks to records and communication technology evolution, drivers can extra effectively discover pleasant parking spaces with smart parking services. The present and ongoing works on clever parking are complicated and transdisciplinary. While deploying a clever parking device, cities, in addition to urban engineers, want to spend a completely long time to survey and investigate all of the possibilities. Moreover, many varied works involve multiple disciplines, that are closely connected and inseparable. To supply a clear evaluation, we introduce a clever parking environment and propose a comprehensive and considerate classification by way of figuring out their functionalities and difficult focuses. We go through the literature over the period of 2000-2016 on parking answers as they were carried out to smart parking improvement and evolution, and suggest three macro-issues: records collection, machine deployment, and provider dissemination. In each macro-topic, we provide an explanation for and synthesize the primary methodologies used within the present works and summarize their not unusual desires and visions to solve modern-day parking difficulties. Finally, we deliver our engineering insights and show a few challenges and open problems. Our survey offers an exhaustive observe and a prospect in a multidisciplinary approach. Besides, the

principle findings of the cutting-edge modern day throw out guidelines for future studies on clever towns and the Internet architecture

Kamlakannamet. al, "Fast character recognition using expert system"- in proceedings of the Thirty-SeventhSoutheastern IEEE Symposium onsystem theory (ssst-05).

In recent years significant research has been completed in the subject of individual popularity through extracting functions from the person photo and spotting by way of neural community classifiers. This paper offers with person recognition the usage of professional machine disposing of the neural community class and schooling of facts. First the character image is pre processed the usage of thinning set of rules. Then using the thinned photo, the features like horizontal line, vertical line, curved line, oblique strains, holes are extracted. Using the extracted features the policies are generated to categorise the man or woman the use of Java expert shell machine (JESS). Since the guidelines are generated immediately from the functions and popularity of the character, the need for training of facts in neural community classifier and the time consumed for this process can be prevented. Thus the person recognition system advanced is quicker.

PranotiSalunkhe, PoonamMalle, KirtiDatir, JayshreeDukale,"Automated Toll Collection System Using RFID" in IOSR Volume 9,Issues 2(Jan-Feb 2013).

ATCS is an Automated Toll Collection System used for accumulating tax robotically. In this we do the identification with the help of radio frequency. A vehicle will preserve an RFID tag. This tag is nothing however specific identity quantity assigned. This will be assigned by RTO or visitors governing authority. In accordance with this range we will keep, all basic facts as well as the quantity he has paid in advance for the TOLL series. Reader may be strategically positioned at toll series middle. Whenever the car passes the toll naka, the tax quantity can be deducted from his prepaid balance. New stability will be up to date. Incase if one has inadequate stability, his updated stability will be poor one. To tackle this trouble, we are alarming a valid, on the way to alert the authority that this car doesn't have sufficient stability and that particular automobile can be trapped. As vehicles don't must forestall in a queue, it assures time saving, gas conservation and also contributing in saving of cash.

3. OVER VIEW OF THE SYSTEM

1. Smoke Sensor characteristics

2. IR Sensor characteristics

3. RFID Communication

4. Conversion of AC supply to DC supply.

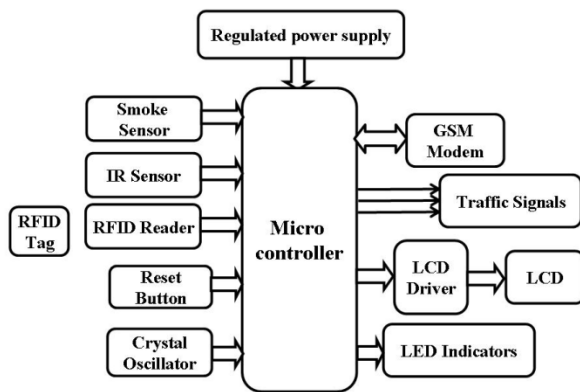5. Embedded C programming.

6. PCB design

Fig: - 1 System Arctic her

4. METHODOLOGY

1. Automatically controlling the traffic lights

2. Traffic density estimation.

3. Identifying of signal jump vehicles and instant penalizing them.

4. Intimating signal jumping fine amount to vehicle owner.
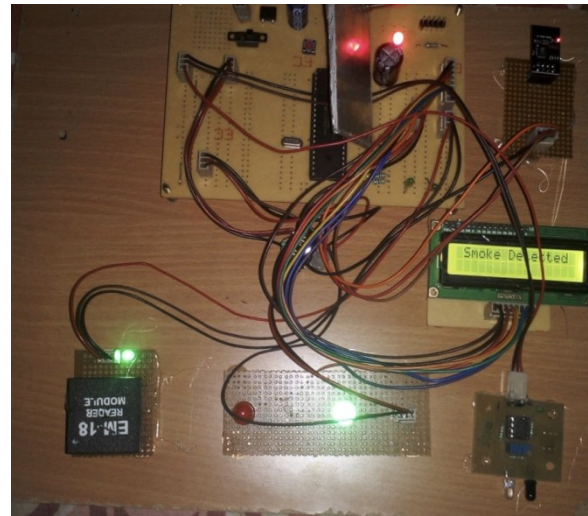
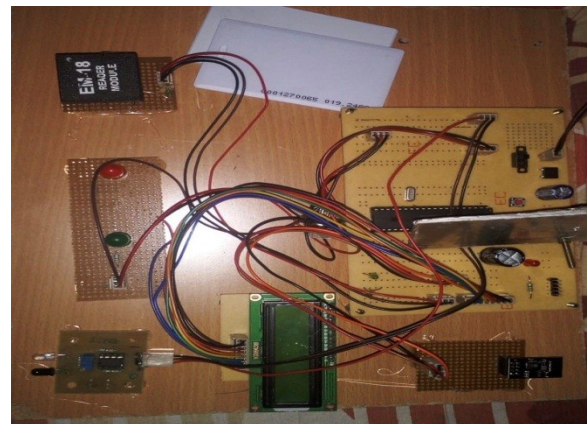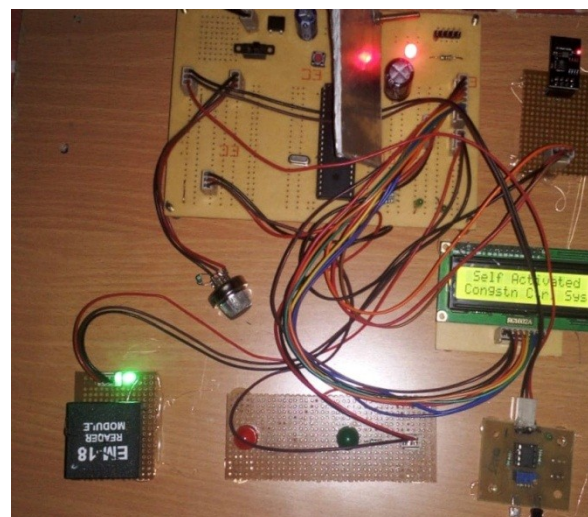## 5. RESULT AND DISCUSSION

Fig:-2 Kit Over View

Fig:-3 RFID Cards as Vehicles

6. CONCLUSIONS

Proposed Approach will assist to penalize the site visitors rule violator forcibly by using the use of enforcement of presidency policies. This technique can even reduce the corruption of site visitors and manipulate department and the harassment of the citizens by way of the site visitors police. With assist of this technique leakage of government sales generated from visitors and control department could be nearly 0 and the control on visitors might be high. This approach can even help to enhance the employability in some manner. Accidents and offences because of violation of site visitors regulations could be completely decrease as humans will not want to be penalized by way of a hefty amount and in addition to no fuel enforcement. This approach can also be extended for many different problems associated with site visitors and manage enforcement.

7. FUTURE ENHANCEMENTS

Proposed technique also can similarly increase to hyperlink with ADHAR CARD and additionally be utilized for the imminent trouble of parking to pick out the motors in parking slots and may be integrated with the rate gins to control the vehicle velocity and notify them.

REFERENCES

[1] Groft, Eric et al, "Smart meter parking system"; United States Patent20070016539.

[2] Timar, G et al, "Analogic preprocessing and segmentation algorithmsfor off-line handwriting recognition" -Proceedings of the 2002 7th IEEEconference on Cellular Neural Networks and Their Applications, 2002.(CNNA2002).

[3] Kamlakannamet. al, "Fast character recognition using expert system"-in proceedings of the Thirty-SeventhSoutheastern IEEE Symposium onsystem theory (ssst-05).

[4] Batuwita et al, "Fuzzy Recognition of Offline Handwritten NumericCharacters"-IEEE Conference on Cybernetics and Intelligent Systems. 7-9June 2006.

[5] Sanparith et al, "A generic approach for on-line handwritingrecognition" Ninth International Workshop on Frontiers in HandwritingRecognition, 2004. IWFHR-9 2004

[6] Hailong Liu and Xiaoqing Ding "Handwritten Character RecognitionUsing Gradient Feature and Quadratic Classifier with MultipleDiscrimination Schemes" in proceedings of Eighth InternationalConference on Document Analysis and Recognition, 2005.

[7] KresimirRomic, Irena Gailc, Alfonzo Baumgartner "CharacterRecognition Based On Region Pixel Concentration for License PlateIdentification".

[8] PranotiSalunkhe, PoonamMalle, KirtiDatir, JayshreeDukale,"Automated Toll Collection System Using RFID" in IOSR Volume 9,Issues 2(Jan-Feb 2013).

[9] Suen, et, al "Handwriting recognition - the last frontiers", Proceedingsof 15th International Conference on Pattern Recognition (ICPR-2000).

[10] Ahmed, DileepKumar, PankajPratap Singh, Sarfraz, ZidouriA.andAlkhatib, W. G. (2003), License plate Recognition System" TheProceedings of The 10th IEEE International Conference n Electronics,Circuits And Systems (ICECS2003), Sharjah, United Arab Emirates (UAE).