2017-18

Smart Video Surveillance for ATM

Kavya Padman, Shraddha Shetty, Apeksha Rai, Bitty Grace, Prof. Harish Kunder
Computer Science Department
Alvas Institute Of Engineering and Technology, Manglore, Karnataka

Abstract— this paper proposes a modernized structure to grow the security and observation of ATM stands. Due to the development of burglary in ATM, it is essential to use a modernized perception structure to shield and secure the ATM machine from threats. Currently, a camera joined with the ATM unit, records and transmits the video manage to the central server of the bank. This manual surveillance utilizes a considerable measure of transfer speed for transmission. There is misuse of memory and late response to emergency condition. In this manner, early disclosure of the condition is essential to take preventive measures against a nonstop robbery. In this paper it is possible to perceive whether a man is covering his face or not. The proposed system is furthermore fit for counting the number of people present inside the ATM stand and create an alert, in this manner removes a steady human supervision, reducing the limit of pointless video support and transmitting only an odd condition, a speedier response to a hazard by alerting the watching section.

I. INTRODUCTION

Security is one of the essential worries of the modern time. The most concerning issue of utilizing electronic gadgets and hardware is that the data can be hacked and spilled, protection disregarded, robbery and thievery. ATMs are worldwide keeping money administrations which profits very advantageous for the clients. Most ATMs are open 24 hours; their areas are spread everywhere on a city/town. It may be difficult to take cash from a bank, as it is outfitted with high manual security and is generally situated close populated areas of a city/town. In any case, ATMs because of the nature on its administration, is under a more noteworthy danger of being burgled. Since the whole reason for an ATM benefit is to decrease manual communication and give administration to the client through mechanization, it is vital that the security gave is additionally programmed and proficient. The incessant reports of robbery and burglary in ATM are a developing worry for the banks. These security issues are turning into a deterrent to the extension of ATM administration and better unwavering quality. The security framework should be effectively robotized with the goal that it can identify strange circumstances inside the ATM booth and answer to the experts or bolt the machine from discharging money. Video or settled camera are utilized as contribution to a computer vision system, and this information is utilized to translate the state of a circumstance.

II. LITERATURE REVIEW

To enhance the security of ATM a few research works must be done. At first security of ATM condition was constrained to location of individual items like blade, protective cap, guns, knives and so forth. In [1] Che-Yen-Wen proposed a framework which could identify safety helmets utilizing modified Hough Transform. A framework which could distinguish safety helmet utilizing modified Hough Transform was proposed. When criminals use the ATM to withdraw illegal money, they usually hide their faces with something for example safety helmet, to avoid that the surveillance system records their face information. That will make the surveillance system decrease their efficiency. Here they propose a circle or circular arc detection method based upon the modified Hough transform, and applies it to the detection of safety helmet for the surveillance system of the ATM. Since the safety helmet location will be in the set of the obtained possible circles or circular arcs. The system uses geometric features to verify if any safety helmet exists in the set. The drawback of this system is that, it cannot detect a face that is not covered using any other equipment like cloth or mask. So when the thief uses any other means to cover the face it becomes undetected.

INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact factor: 4.295
(Volume 3, Issue 6)
Available online at www.ijariit.com

A Survey on Medical Data by using Data Mining Techniques

Pradeep Nayak
Alva's Institute of Engineering and Technology, Mangalore, Karnataka
pradeep_snayak@yahoo.com

Sayeesh
Alva's Institute of Engineering and Technology, Mangalore, Karnataka
sayeesh03@gmail.com

Abstract: ***Data mining is a vital region of research and is practically utilized as a part of various areas like back, clinical research, instruction, human services and so on. Data mining is an imperative zone of research and is even-mindedly utilized as a part of various areas like the fund, clinical research, training, social insurance and so forth. Truth be told, the assignment of data extraction from the medicinal information is a testing attempt and it is a perplexing errand. The principle intention of this audit paper is to give a survey of data mining in the domain of medicinal services. In fact, the task of knowledge extraction from the medical data is a challenging endeavor and it is a complex task. The main motive of this review paper is to give a review of data mining in the purview of healthcare. Moreover, intertwining and interrelation of previous researches have been presented in a novel manner. Furthermore, merits and demerits of frequently used data mining techniques in the domain of health care and medical data have been compared. The use of different data mining tasks in health care is also discussed. An analytical approach regarding the uniqueness of medical data in health care is also presented.***

Keywords: ***Medical Data; Data Mining Tasks; Data Mining Functions on Medical Data Approach; Data Mining Techniques; Uniqueness of Medical Facts.***

I. INTRODUCTION

Medical information implies databases that stores social insurance data, similar to patient's records. With the advancement of Information Technology, bunches of such therapeutic information are put away in electronic structures. These databases contain extensive volume of information. Medical information is accessible from various sources for instance; X-rays, computed tomography scans (CT), magnetic resonance images (MRI), ultrasound, and so forth. Subsequently, the expansion in the volume of information and the databases required to store the digitized information has expanded exponentially [1]. Further, crude restorative information is normally gigantic and unique in nature and it might be gathered from various sources like, pictures, interviews with the patient, research facility information, and the doctor's perceptions and assessments [2]. Medicinal information are of the different kinds. It can be as pictures, datasets, signals, wavelengths and so on. In exhibit situation, because of examines and advancement in the field of data gathering devices, we can witness colossal measure of data or information accessible in electronic organization. Clearly to store such a lot of information or data the sizes of databases additionally increment significantly [3]. Medical information are accessible in several open and private databases, which has just been conceivable by novel database advances and the Internet [4]. It has been evaluated that human services industry may create terabytes of information consistently [5]. All things considered, the activity of extricating helpful data for quality social insurance is dubious and vital and these days we have heaps of information accessible in our databases for this reason. In any case, the learning that is separated from it is almost immaterial. Hence, compelling association, investigation and translation of information are of the principal significance with the goal that unmistakable extraction of learning could wind up plainly conceivable.

H. O. D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact factor: 4.295
(Volume 3, Issue 6)
Available online at www.ijariit.com

Piracy Control Serial Key Generation

Reena Lobo
Student
Alva's Institute of Engineering and Technology, Mijar, Moodbidri, Karnataka
reenalobo321@gmail.com

Venkatesh
Associate Professor
Alva's Institute of Engineering and Technology, Mijar, Moodbidri, Karnataka
venkateshbhat2007@gmail.com

Abstract: ***Software piracy has been a great issue that has been discussed over the past few years. A lot of big companies and software developers have lost a lot of money due to the abundance of software piracy. This paper "piracy control serial key generation" is mainly used to protect the software piracy. In the product key comes with the software that you by which include hard disk id and the processor id of the buyer's computer which is encrypted using AES algorithm.***

Keywords: Piracy, Abundance, Serial Key.

I. INTRODUCTION

Software Piracy is a term for the illegal duplication of copyrighted computer software.Software piracy involves the use, distribution of the software without the permission of the software owner. Software piracy has been a great issue that has been discussed over the past few years. A lot of big companies and software developers have lost a lot of money due to the abundance of software piracy. There are several types of software piracy that are discussed below.

TYPES OF SOFTWARE PIRACY

- **Soft Lifting**

Purchasing a single licensed copy of the software and loading it onto several computers in violation of license terms. An example of this would be sharing software with friends, co-workers, and others.

- **Uploading and Downloading**

Making unauthorized copies of copyrighted software available to end users connected to online service providers and/or peer-to-peer networks via the Internet.

- **Unrestricted Client Access Infringement**

Allowing clients of an organization to freely access software on the organization's network server in violation of the terms of the license agreement.

- **Hard Disk Loading**

Installing unauthorized copies of software onto the hard disks of personal computers, often as an incentive for the end user to buy the hardware from that particular hardware dealer.

- **Commercial Use of Non-Commercial Software**

Using educational or other commercial-use-restricted software in violation of the software license.

HOW PIRACY AFFECTS

Pirated software hurts everyone — from software developers to retail store owners, and ultimately to all software users. The illegal duplication and distribution of software have a significant impact on the economy, costing. In addition, companies facing the loss of revenue due to piracy must pull resources from the development of new technology, and devote it to protecting both their software, and its legitimate users. In the end, software piracy is unfair to everyone.

H.O.D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Advanced Engineering Research and Applications

Volume -II

Editor-in-Chief:

Hongseok Choi

Department of Mechanical Engineering,
Clemson University, 205 Fluor Daniel Bldg.
Clemson, SC 29634 USA.

RIP **Research India Publications**

B-2/84, Ground Floor, Rohini Sector-16, Delhi-110089, INDIA

Advanced Engineering Research and Applications

Volume -VIII

Editor-in-Chief:

Hongseok Choi

Department of Mechanical Engineering,
Clemson University, 205 Fluor Daniel Bldg.
Clemson, SC 29634 USA.

RIP Research India Publications

B-2/84, Ground Floor, Rohini Sector-16, Delhi-110089, INDIA

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Smartphone based Automatic Irrigation System

Varsha P M, Varsha A, Shubha H V, Parneeth charanthimath,
Department of Computer Science and Engineering
Alva's Institute of Engineering and Technology, Mijar, Moodbidri

Abstract: **One of the most important factors for successful agricultural production is the irrigation system in place. This paper propounds a design for automatic water supplying system in farmland using raspberry pi 3, Arduino microcontrollers, relay boards and couple of sensors. System helps in water conservation by automatically providing water to the plants depending on their water requirements. It can prove to be efficient in agricultural fields, since pumping motor will be controlled from the remote place through the android application. Soil moisture sensor is inserted into the soil to measure the moisture level. The moisture level will be received by the raspberry board. After receiving the value, it is compared to the predetermined threshold value. If the moisture level is greater then the threshold value the motor will be turned ON of if it is lesser than the threshold value the motor can be turned OFF by the user. The farmer can control the motor from the remote place depending on the moisture value. The system is best suited for places where water is scares and has to be used in limited quantity.**

INTRODUCTION

Agriculture is considered as the basis of life for the human species as it is the main source of food grains and other raw materials. It plays vital role in the growth of country's economy. It also provides large ample employment opportunities to the people. Growth in agricultural sector is necessary for the development of economic condition of the country. Unfortunately, many farmers still use the traditional methods of farming which results in low yielding of crops and fruits. But wherever automation had been implemented and human beings had been replaced by automatic machineries, the yield has been improved. Hence there is need to implement modern science and technology in the agriculture sector for increasing the yield. This paper sheds light on an implementation of an automatic water supplying system. Without water, they can't survive, whereas the inaccurate supply of water can also lead to many complications. For instance, water accumulated for a long time around the roots of a sapling may damage the roots and can also cause mineral loss in the soil. Moreover, the amount of water to be supplied to the trees depends upon the soil humidity and sunlight availability. Any error in this regard will cause harm to their upbringing. Therefore, measuring the correct condition of the soil and environment is critical in determining the proper quantity of water needed for the plants. With the help of Arduino sensors controlled by Raspberry Pi 3 microcomputer, automatic water control system is designed by detecting soil moisture and temperature. Each type of crops needs different soil moisture for smooth growth. Hence the soil moisture is a key variable that can be used to determine the quantity of water needed. Besides, the availability of the amount of temperature is also very crucial for crops. Wrong timing of watering can cause more harm rather than benefit.

Moisture sensor was installed near the roots and temperature sensor is installed further away to clearly detect the sunbeam. These sensors send their data to the raspberry pi to analyze. If a predetermined condition is found, then the Raspberry Pi would command a microcontroller to open the gate of water supply until the moisture value becomes greater than the threshold value. If there is a problem in the main water supply, then the computer will notify the administrator. Besides, the administrator can control the system's functionality using the same protocol sending a particular keyword command. This scientific method of water supply can be expanded to use in any agricultural sector.

LITRATURE SURVEY

The new scenario of decreasing water , drying up of rivers and tanks, unpredictable environment, present an urgent need of proper utilization of water. To cope up with this use of temperature and moisture, sensors are placed at suitable locations for monitoring the crops. After research in the agricultural field, researchers found that the yield of agriculture is decreasing day by day. However, use of technology in the field of agriculture plays an important role in increasing the production as well as in reducing the man power . Some of the research attempts are done for betterment of farmers that provide systems which usetechnologies helpful for increasing the agricultural yield. The cloud computing devices create a whole computing system from sensors to tools that observe data from agricultura l field and accurately feed the data into the repositories .This idea proposes a novel methodology for smart farming by linking a smart sensing system and smart irrigaton system through wireless communication technology. It proposes a low cost and efficient wireless sensor network technique to acquire the soil moisture ,humidity , temperature from various locations of field and as per the need of crop water motor is enabled .It proposes an idea about how automated irrigation system was developed to optimize water use for agricultural purposes.

PROPOSED SYSTEM

The block diagram of the proposed system as shown consists of different types of sensing unit such as Soil Moisture Sensor to measure water content of the soil,

SmartLib using RFID and Android

Rakshith R Pai[1], Tejaswini Gowda H[2], Khaleed Ahamad[3], Pavitra Kencharaddy[4], Merlyn Melita Mathias[5]

[1-4]*Students of Computer Science and Engineering Department, Alva's Institute of Engineering and Technology Mijar, Moodbidre, Mangalore, Karnataka, India*

[5]*Assistant Professor, Department of Computer Science and Engineering, Alva's Institute of Engineering and Technology Mijar, Moodbidre, Mangalore, Karnataka, India*

Abstract: **A library is a collection of sources of information and similar other resources, which is made accessible to a defined community like Educational Institution and Organization for reference or borrowing. Radio Frequency Identification (RFID) is an underlying system of Library management system (LMS). Android app for Library Automation is used for managing software, monitoring and controlling the transaction in the library. A Library includes books, question paper, newspaper, journals and previous year's project details etc. This paper mainly deals with the description and evolution of library system and their disadvantages over centuries in the different part of the world. The source of information in an Institution is a Library. Here Librarian plays a very important role in managing the Library functions such as adding new students, book data, date of issuing and returning the book and entering all the relevant details of the books etc. For this the student has to wait for his /her turn as Librarian enters data student by student. Thus, it is very time consuming process and costly because of high manpower requirement. This paper mainly focusses on the basic library operation and some added features like view total books, view available books, updating information, searching books and a facility to request and return of books and some alert systems. The system is an Android App written for smart phones, designed to help the users to maintain and organize Library Management System.**

Index Terms- **Android, RFID, GSM, Arduino.**

I. INTRODUCTION

A library is a huge collection of sources of information which is made accessible to the users of that Organization or Institution. Android application is developed using web technology in Online based library management system, which focuses on basic operation like adding new members, adding new books, updating the arrival of borrowed books and as well as new books, searching books and alert on fines using GSM service. Library provides many resources like books, question paper, newspaper, journals and previous year's project details and magazines etc., the information in a library can be in a physical form or in a digitized form. In olden days the access to library resources was usually done in the library room, so the users had to wait in a line for their turn to borrow the books. The advancement in technology has made the access of library resources online. This provides an efficient use of technology by eliminating the rigorous paper work to be done. Initially the invention of computers in library eliminated the paper work to be done, then came the internet which provided a feature for storing data centrally and making it accessible by the users. Since the data stored is centralized one can access it through online. The mobile phones provided the mobility of data. Initially mobility platforms were Bada, Flash U, and Symbian etc. Later for easy user interface, better response time and faster access Android operating system was introduced by Google. Android is an open source platform based on Linux Kernel. In the present era, android has become a popular platform. Android operating system is mainly designed for smart phone and tablet devices, to provide improved book recommendation, novel reading services and exchanging of information, user personal preferences were taken into consideration. This Library access system application, developed by using Android uses SQLite Database. This application provides access to library account to check the availability of books and if not available requesting a book, downloading some resources like journals, previous year question paper and previous years' project details. Here we create a VPN (Virtual Private Network) for library with RFID that exist only between college library i.e. PC of Library Admin and the users that is students. The students will be interacting with server through their android mobile phones. The software on the server side will be in java and user's side is android application.

As the RFID system arose in the market, the barcode system slowly got replaced by the RFID technology. The RFID tag does not have to be visible during detection. It can be read even when it is embedded in an item, such as in the cardboard covered book or in bags and the packaging of a product, thus by this theft detection was easy. It can also store data such as version number, publication details, book number, author information etc., but barcode is limited to just an identification number.So due to the drawback of barcode system, RFID came into existence and changed the whole scenario of the library system to easy and less time consuming.

GSM is the most popular standard for mobile phones in the world. Global System for Mobile Communications is a 2nd Generation cellular mobile system. Global System for Mobile (GSM) is a second generation cellular standard developed to categorizes Voice services and data delivery using digital modulation. The main application of GSM in our project is that it provides Support of Short Message Service (SMS) for Alert system. A GSM modem is a wireless modem that works with a GSM wireless network.

International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS)
Volume VII, Issue III, March 2018 | ISSN 2278-2540

Cloud Based File Sharing

Pragathi Shetty, Rajkumari Sunanda, Sowmya Shree K S, Swathi N G., Hemanth Kumar N P
Dept of Computer Science & Engineering, AIET, Mijar, Mangalore, Karnataka, India

***Abstract*—Internet based online cloud services, provides enormous volume of storage space,secure and elastic data storage services are claim to be provided by cloud service provider that will adopt to various storage necessities.Cloud storage liberates organizations from establishing in-house data storage systems and migrate data to remote storage in cloud.However, cloud storage rises to security issues.Cloud security, authentication is very essential factor but the Cloud has security issues as it deals with different technologies like networking, database management, memory management and virtualization.**

***Keywords*— Access control, cloud computing, Snooping, Identity and Access(IAS), Access Control List(ACL).**

I. INTRODUCTION

In a recent years, cloud computing have been very trending in IT that where computing and data storage is done in data centres rather than personal portable PC's. Cloud storage reduce the burden of local hardware and software management and enables users to remotely store their data and enjoy the cloud applications.When more people accessing their files online, an important part of file sharing today is done by taking advantage of cloud storage. Cloud Computing migrates thedatabases and application software to the large data centres, where the management of the data and services are not justifiable.Cloud platform services, concepts and applications such as storage, processing power, virtualization, and connectivity allow the use of sharing data. Ensure that user's privacy and security of data are the most concerned challenges. Cloud storage service providers provides secure and elastic data-storage services that will be suitable for various storage requirements. Once data is uploaded into the cloud, the data owner loses control of the data, hence new security risks towardconfidentiality andintegrity of the data arises. In the last recent years,the cloud storage are widely use as it provides various applications such asdata archival, file backupand file sharing. Cloud storage servicesimplements file sharing in different ways depending in the form they are applied and at the ordered permission types. To protect users and data from each other as well as from the hackers there is a need of data confidentiality and authenticity of users.With ever-rapid development of e-business, e-science and social networkinghuge amounts of data, is generated by these e-applications. For instance, everyday the famous social network websites, such as Twitter, Facebook store a large number of photos, serve billions of page views, and manage billions of contents.

II. LITERATURE REVIEW

In cloud computing shared resource are provided over the Internet. Various cloud storage threats are Data Leakage, Snooping, Data Loss, Business Risks in Shared Technology and Key Management. In data leakage Resources are shared in cloud, a multi-tenant environment which provides access to a customer's data. Sharing storage hardware and migrating private or confidential data in the cloud seems to be risky. There are number of threats which leads to data leakage, including unauthorized access of cloud user accounts or hacks of cloud providers. The tenant cannot thrust the cloud service provider with their data, the best strategy is to depend on stronger passwords and file encryption. The length of the key used to protect data in cloud is conventionally co-related to the time required to break down an encryption algorithm.In Snooping, files without security measures in the cloud are most susceptible of being hacked. Even if the cloud service provides encryption for files, on route to its destination data can still be cut-off. Security against this threat would be to ensure that the data is encrypted and transmitted over a secure connection, as it will prevent unauthorized users from accessing the cloud's data. In Data Loss, some of the cloud services like Microsoft Azure, Dropbox and Google Drive has become a part of various business processes it has to deal with new security issues such as loss of control over confidential data. Data loss can be costly for an enterprise. A lot of data that are not meant to be shared can end up being viewed by unauthorized user, user need to backup their data in real-time. The Business Risks in Shared Technology cloud computing such as Infrastructure, platforms, and applications are shared by cloud service providers. Entire environment of the system can be exposed by a single vulnerable activity. In Key Management the management of cryptographic keys has become huge security issues after the introduction of the cloud. It can be done by securing the key management process by being automated, inconspicuous, and active.

Identity and Access Management(IAS) method is for controlling access to the resources, because it provides enterprise access control over all of Google Cloud Platform, and it grand permissions granted to parent resources. Mandatory access control (MAC) is a system control access limit to source entities, constructed on the level of permission or approval of the accessing data entity, it may be a person,a device or a process. Access control List(ACL) provide individual buckets or objects read or write access for users.

When a user wants to share some resource with

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

A Speakup App For People

Pragati D Kalgutkar#, Reeba Thankam Chandy#, Sai Priya#, Sonal D Bandekar#, Vivek Sharma*
Department of computer science Engineering, Alva's Institute of Engineering and Technology,, MIjar, Moodabidri, Manglore Taluk, Karnataka, India 574225
* Assistant Professor, Department of computer science and Engineering, Alva's Institute of Engineering and Technology, MIjar, Moodabidri, Manglore Taluk, * Karnataka, India 574225

***Abstract*—In today's world, people using smart phones have increased rapidly and hence, a smart phone can be used efficiently for personal security or various other protection purposes. The heinous incident that outraged the entire nation have waken us to go for the safety issues and so a host of new apps have been developed to provide security systems to people via their phones. This paper presents Safety Android Application for the people and this app can be activated by a single click, whenever need arises. A single click on watch which has Bluetooth connectivity the smartphone pops up the app identifies the location of place through GPS and sends a message comprising this location URL to the registered contacts, audio and also call on the first registered contact to help the one in dangerous situations. The unique feature of this application is connection of Bluetooth between smartphone and watch to pop up the app and send the message to the registered contacts continuously for every five minutes until the "stop" button in the application is clicked. Continuous location tracking information via SMS helps to find the location of the victim quickly and can be rescued safely**

Keywords — GPS, Android, URL, Registered contacts, Bluetooth.

I. INTRODUCTION

Speak up is an Android Application for the Safety of people .The heinous incident that outraged the entire nation has wakened us to go for the safety issues and so a host of new apps have been developed to provide security systems to people via their phones. We are aware of importance of people's security, but we must recognize that they should be well secured.

The best way to minimize chances in becoming a victim of violent crime is to identify and call on resources to help you out of unsafe situations. This app can be activated by a single click, whenever need arises.

The key features of this app which makes it different from other apps designed till now are as follows: Initially, we have to enter the four contact numbers of police, family members and friends in to the application say and click on "save" button. As soon as "start" button pressed in the hardware the app gets activated and then app sends information such as messages or audio/video to the contacts and nearby police stations. Unique feature of this app is message with location URL is sent continuously to the registered contact numbers. So, continuous location tracking of victim is possible with this application.

II. PROPOSED SYSTEM

A. Mechanism

Fig-1 Arduino nano

In this system it includes a hardware such as watch as well as an android application. The watch includes an emergency button. The android app is used to send some informations to the registered contacts. This app will be background even if the mobile devices get switched off.

When an emergency situation occurs, the victim can click the button in the watch and a message is sent to the app via Bluetooth. As soon as the button is pressed in the watch, the app starts to send messages or other information such as audio/video to the registered contacts and to the nearby police station with the location .It can be also used by other people who has android app. In case any network problem arises emergency call will activated automatically.

Whenever the app sends the information its also sends the location which will be tracked by using GPS. Bluetooth is used as the mode of connection between mobile devices and the hardware such as watch.

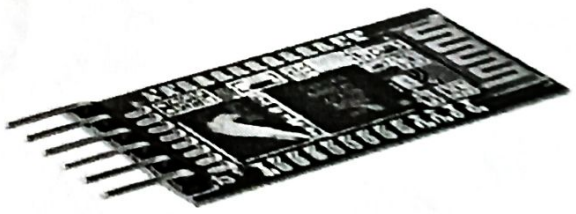

Fig-2.1. Bluetooth HC-05

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Animal and Pedestrian Detection System for Automated Vehicle

Prathiksha P Rai
3rd year CSE
AIET, Mijar

Sumith Kumar S K
3rd year CSE
AIET, Mijar

Varsha S
3rd year CSE
AIET,Mijar

Shetty Aishwarya Sadanand
3rd year CSE
AIET, Mijar

Ms. Ankitha Shetty
Asst. Prof Department of CSE,
AIET, Mijar

***Abstract*:- Detection of animals and pedestrians on the roads using advanced systems such as robots or vehicles is not an easy task. We can overcome this by using conventional tools and high end sensors such as ultrasonic sensors or usage of innovative technology based on smart cameras. In this paper, we will be investigating a vision based solution for the problems faced. We begin the paper understanding few differences between the three major detectors: 1) Haar-AdaBoost; 2) Histogram of oriented gradient (HOG)-AdaBoost and 3) Local Binary pattern (LBP)-AdaBoost. Linear Support Vector Machine (LSVM) which is used in order for a better and reliable classification of human and animal detection. The proposed architecture aims for high detection accuracy and good computation speed.**

General Terms:- HOG algorithm AdaBoost algorithm, LBP algorithm, SVM, LSVM.

Keywords:- Automated collision avoidance system, real-time systems, obstacle detection.

1. INTRODUCTION

Nowadays, Animal and collision has been a major problem. Natural Resource Agencies and Surveys of United States have observed 0.5 to 1.5 million deer has been killed on roads yearly. Similar situations are observed in Asia, Africa and Europe. For instance, some European countries spectated more than 507,000 collisions, resulting 300 human accidents and 30,000 humans injured annually. To prevent this the automated collision avoidance system have aimed to adapt drivers in hindrance detection and avoidance.

Automated collision avoidance system is used for safety purpose for roadway users. As the collision of animals need to be detected and avoided, similarly pedestrian's collision detection is also equally important. Because of the very low requirement of the power, the sensors used are concerned of non-imaging sensors mainly acoustic, magnetic, passive infrared, radar, seismic, ultrasonic and E-field. During last decade, many AVC alleviation architectures has been proposed in [2] and [3]. These architectures have been classified into two methods: 1) Passive methods, which restraints the large animals to keep away from roadways and 2) active methods, concerned with animal detection. Passive method deals with the strategies to warn the animals which is shown in [2]. Other earlier and incompetent techniques, have also been used to keep the animals away from the roads some of them are break the beam methods, roadside refractors and animal reflectors. It is shown that the most efficient way to decrease the number of animal and Pedestrian collusion is to detect animals using cameras, rather than depending upon the deterrence strategies because they are the most effective and accurate way to see the surrounding regions. When compared to the deterrence methods the camera based systems failed on the curved-lane since it is focusing only on some of the regions, it ignores the region outside the field of investigation. So in this paper we focus only on the active methods of computer-vision perspective. The vision-based detection systems mainly uses thermographic cameras, visible range cameras, lasers, or radars to detect the animals and pedestrians. These can be installed along roadsides or inside cars. When these devices detect any pedestrian or animal a warning message will be sent to the drivers as a notification from a dashboard system of a car, or by flashing roadside signs.

We have implemented an architecture based on both animal as well as human detection system. In order to train the classifiers we have created animal, pedestrian positive dataset and also negative dataset .In designing this system there were many challenges. The system must be able to detect pedestrians and animals under different illumination and weather conditions. Hence, all such factors have to be considered to build a robust animal and pedestrian collision detection system.

IJIREEICE

ISSN (Online) 2321-2004
ISSN (Print) 2321-5526

International Journal of Innovative Research in
Electrical, Electronics, Instrumentation and Control Engineering
ISO 3297:2007 Certified
Vol. 6, Issue 6, June 2018

Addressing Security Challenges in Cloud Computing: A Review

Arundhati Nelli[1], Sushant Mangasuli[2], Jyothi Amboji[3]

Assistant Professor, Computer Science and Engineering, KLS Gogte Institute of Technology, Belagavi, India[1]

Assistant Professor, Computer Science and Engineering, Alva's Institute of Engg And Technology, Moodbidri, India[2]

Assistant Professor, Computer Science and Engineering, KLS Gogte Institute of Technology, Belagavi, India[3]

Abstract: Customers can opt for software and information technology services according to his requirements and can get these services on a leased basis from the network service provider and this has the facility to scale its requirements to up or down. This service is known as cloud computing, provided by the infrastructure provider which is a third party provider. Cloud computing provides many advantages to the customer like scalability, better economics of scaling, its ability to recover from problems , its ability to outsource non-core activities and flexibility. Cloud computing is a better option for the organizations to take as their best option without any initial investment and day by day frequent and heavy use of cloud computing is increasing but despite all the benefits a cloud offers to an organization there are certain doubts and threats regarding the security issues associated with a cloud computing platform. The security issues primarily involve the external control over organizational structure and management and personal and private data of the organization can be compromised. Personal and private data in this computing environment has a very high risk of breach of confidentiality, integrity and availability. Growth of cloud computing is mainly hampered due to these security concerns and challenges. This detailed study discusses about some of the security challenges associated with cloud computing services.

Keywords: Cloud Computing, Cloud Cryptography, Cloud CIA, Computer Network, Security Threats.

I. INTRODUCTION

The term "Cloud" is a meteorological metaphor associated with the representation of the internet, and which refers to the informal and fluid character of the latter. The term "Computing" has a double meaning in English: both programming (or computing) in one hand, but also computer science in general in the other hand. The term "cloud computing" represents the evolution of distributed computing through the network recently called emerging applications of internet: search engines and social networks. It is also the evolution of a more recent concept that has more to do with the second meaning of the word, the so-called computer "On-Demand". Cloud computing is a new technology enabling the provision of on-demand applications, services and IT infrastructure on demand accessed on the web. The cloud does not have yet a generally accepted definition, but according to the National Institute of Standards and Technology (NIST)[1], that: "This is a model for the infrastructure relocation". Offering a set of free web computing services like Email, online games and encyclopedia[2]. The cloud is characterized by availability, flexibility, scalability, pooling and payment for use. This technology uses web servers scattered around the world placed in secure data centers for storing customer data.

Cloud relieves the user of the overhead of physical installation and maintenance of her system, which automatically reduces the overall cost and enhances the system efficiency. Embracement of Cloud based services results in introduction of an abstraction layer between the physical storage or servers and the user whose data or services are being processed in the Cloud. The present scenario is such that the Cloud consumer who can be the data or service owner has to rely completely on the Cloud Service Provider (CSP) for the privacy and security of her information. The notion of mutual trust is achieved to some extent by negotiating the SLA but still a good number of cloud specific security issues become inevitable that need to be handled by either the CSP or the user itself [3].

Data holds the topmost position when it comes to IT security concerns, irrespective of the infrastructure being used. Cloud Computing is no exception to this, moreover it focuses on added security concerns because of its distributed nature and multi-tenant architecture. The data life cycle comprises its generation, storage, usage, distribution and destruction. Each CSP should support all these phases in the data life cycle with appropriate security mechanisms. For example, if the web application (shared application) is insecurely programmed, a customer could possibly use an SQL injection to gain unauthorized access to another customer's data, and delete or manipulate it. To prevent this, appropriate security measures must be implemented. The phenomenon of data deletion is again somewhat crucial in the cloud and therefore should be handled carefully by the CSP to ensure permanent and complete destruction of data on a

DOI 10.17148/IJIREEICE.2018.661

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

A Review on Health Monitoring System using IoT

Harshitha Bhat Nishmitha Shetty and Ankitha Shetty
Dept of Computer Science and Engineering,
Alva's Institute of Engineering and Technology, Mijar,
Moodbidri, India

Abstract—**Now-a-days health care has become technology ori- ented. Humans are facing a problem of unexpected death due to lack of medical care at right time. Therefore, there is a need to develop body health monitoring system. In the proposed system, a patient will be carrying hardware having sensors and android phone application. The sensors will sense the body temperature and heart rate of patient and these data are transferred to android smart phone via Bluetooth/Wi-Fi. System has the cloud database which stores all information about patients health and the doctors diagnose the symptoms based on this data and will prescribe medicine. The proposed system is flexible since it allows patient to move freely and yet be monitored continuously. Monitoring of patient's health is a combination of web as well as android application where reliable, energy efficient patient monitoring system is proposed in this work. In the current proposed system the patient health is continuously monitored using a different sensor which is connected to the Ardiuno board and the acquired data is send to the server using Ethernet shield attached to the Ardiuno board. If any of the parameter values goes beyond the threshold value an alert is given to the doctor using an Android application installed in the doctors smart phone. The IoT allows to integrate multiple devices capable of connecting to the internet and providing information on the state of health of patients and providing information in real time to doctors who assist.**

I. INTRODUCTION

The health care is vast area requiring continuous monitor- ing. Continuous measurement of patient parameters such as heart rate and rhythm, respiratory rate, blood pressure, blood- oxygen saturation and, many other parameters have become a common feature utilized in major health care systems. When accurate and immediate decision-making are crucial, electronic monitors have be extensively used to collect and display physiological data. Also there are scenarios where patient are not ready to wait in the queue and appointments for the check- up and also constant monitoring of their health. Usually patient monitoring system detects for and also warns against serious or life-threatening events in patients or critically ill. Patient monitoring system can be rigorously defined as repeated or continuous observations of the patients physiological function, and the function of life support equipment, for the purpose of guiding management decisions. This also includes when to make therapeutic interventions and assessment of those inter- ventions [GardnerR.M, 2006]. A patient monitoring system may not only alert caregivers to potentially life-threatening events; many also provide physiologic input data used to control directly connected life-support devices. In real case scenario, manual intervention is required for registration, for eg., when a patient is in critical condition there are chances that no alerts are generated which may sometimes cause loss of life. Also, in absence of doctors they do not have a provision of remotely monitoring the patient. In the initial years Near Field Communication (NFC), the similar device used was Radio Fre- quency Identification (RFID). With RFID the cost was high as there was a requirement of RFID reader. In the existing system the transmission of data received from sensors is intermittent. If any critical parameter is recorded it sends an alert message through Global System for Mobile(GSM) technology to the registered caretaker. The drawback in the existing system is that the continuous monitoring of patient health is not possible. Even though the patient is taken to the hospital in time the doctor may not come to a conclusion with which critical health condition the patient has comeback without further testing the patient. This may cause delays in providing treatment. The proposed work aims in developing a health monitoring system that integrates IoT and cloud computing. The Internet of Things (IoT) is the inter-networking of physical devices, vehicle, buildings and other items embedded with electronics, software, sensors and network connectivity which enable these objects to collect and exchange data [Andrejs, 2015]. Also the processing of data on web-connected servers in large data centers through cloud, has also contributed greatly to the ability of everyday gadgets to become part of the IoT. These devices may connect to the internet by sending data to your phone or some other dedicated hardware in your home that acts as a hub over a local communication method. The other applications of IoT can be seen in smart surveil- lance, automated transportation, smarter energy management systems, water distribution, urban security and environmental monitoring. For a health monitoring system, wearables become a major aspect. Wearable devices are installed with sensors and softwares which collect data and information about the users. These devices broadly cover fitness, health and entertainment requirements. Patient health monitoring system using mobile phone is used to monitor the different parameters of patients remotely and simultaneously. In this system the doctor can monitor

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Review on Facial Expression Based Music Player

Preema J. S
Student
Alva's Institute of Engineering and Technology Mijar Moodbidri

Rajashree
Student
Alva's Institute of Engineering and Technology Mijar Moodbidri

Sahana M
Student
Alva's Institute of Engineering and Technology Mijar Moodbidri

Savitri H
Student
Alva's Institute of Engineering and Technology Mijar Moodbidri

Shruthi S. J
Assistant Professor
Alva's Institute of Engineering and Technology Mijar Moodbidri

***Abstract*:- Human often use nonverbal cues such as hand gestures, facial expressions, and tone of the voice to express feelings in interpersonal communications. The face of the human is an important organ of an individual's body and it plays an important role in extraction of an individual's behavior and emotional state. Facial expression provides current mind state of person. It is very time consuming and difficult to create and manage large playlists and to select songs from these playlists. Thus, it would be very helpful if the music player itself selects a song according to the current mood of the user. Manually segregating the list of songs associated, generating acceptable playlist supported an individual's emotions could be a terribly tedious, time overwhelming, intensive and upheld task Thus, an application can be developed to minimize these efforts of managing playlists. However the proposed existing algorithms in use are computationally slow and less accurate. This proposed system based on facial expression extracted will generate a playlist automatically thereby reducing the effort and time involved in rendering the process manually. Facial expressions are given using inbuilt camera. The image is captured using camera and that image is passed under different stages to detect the mood or emotion of the user. We will study about how to automatically detect the mood of the user and present him a playlist of songs which is suitable for his current mood. Proposed paper has used Viola-Jones algorithm and multiclass SVM (Support Vector Machine) for face detection and emotion detection respectively.**

Keywords*:- *Viola Jones Algorithm, SVM, Facial Expression recognition

1. INTRODUCTION

In today's world, with ever increasing advancements in the field of multimedia and technology, various music players have been developed with features like fast forward, reverse, variable playback speed (seek and time compression), local playback, streaming playback with multicast streams. Although these features satisfy the user's basic requirements, yet the user has to face the task of manually browsing through the playlist of songs and select songs based on his current mood and behavior. Music plays a very important role in enhancing an individual's life as it is an important medium of entertainment for music lovers and listeners and sometimes even imparts a therapeutic approach.

Facial expressions give important clues about emotions. Computer systems based on affective interaction could play an important role in the next generation of computer vision systems. Face emotion can be used in areas of security, entertainment and human machine interface (HMI).A human can express his/her emotion through lip and eye. The work describes the development of Facial Expression Based Music Player, which is an application meant for users to minimize the efforts in managing large playlists. Generally people have a large number of songs in their database or playlists. Thus to avoid trouble of selecting a song, most people will just randomly select a song from their playlist and some of the songs may not be appropriate for the current mood of the user and it may disappoint the user. Facial Expression based Music Player is interactive, sophisticated and innovative mobile (Android) based application to be used as a music player in a different manner.

The application works in a different manner from the traditional software as it scans and classifies the audio files present on the device and according to the predefined parameters (Audio Features) present on the application in order to produce a set of mood based playlists. The real time graphical input provided to the application is classified (Facial expression recognition) to produce a mood which will then be used to select the required playlist from the earlier set. The main objective of the paper is to design an efficient and accurate algorithm that would generate a playlist based on current emotional state and behavior of the user. Face detection and facial feature extraction from image is the first step in emotion based music player. For the face detection to work effectively, user needs to provide an input image which should not be blur and tilted.

The application makes use of Viola-Jones algorithm that is used for face detection and facial feature extraction. The algorithm designed requires less memory overheads, less computational and processing time, reducing the cost of any additional hardware like EEG or sensors [1]. The facial expression would categorize into 5 different types of facial expressions like anger, joy, surprise, sad, and disgust. A high accurate audio extraction technique is proposed that extracts significant, critical and relevant information from

Review Paper on Automated Number Plate Recognition Techniques

Dr. S Mohideen Badhusha
Senior professor
Alva's Institute of Engineering and Technology Mijar, Moodbidri
badhusha.sm@gmail.com

Arpitha
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri
arpithashettys7@gmail.com

Bhavyashree S Barkuru
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri
bhavyashreebkr@gmail.com

Anvitha Bhat H.G.
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri
anvi.hg96@gmail.com

Hemashree.J
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri
j.hemashree@gmail.com

ABSTRACT
Automated Number Plate Recognition (ANPR) system greatly enhances the ability of police to detect criminal activity that involves the use of vehicles. This system is used by local authorities and commercial organizations in all aspects of security, surveillance, and access control and traffic management. ANPR systems use Optical Character Recognition (OCR) to read number plates through CCTV systems, which enables vehicle registration numbers to be stored, analyzed and retrieved, as required. Radio frequency identification (RFID) is a generic term that is used to describe a system that transmits the identity (in the form of a unique serial number) of an object or person wirelessly, using radio waves. It's grouped under the broad category of automatic identification technologies. RFID is increasingly used with biometric technologies for security. In this paper we are discussing about various advantages and disadvantages of different methodologies used in the different systems

General Terms
RFID, ANPR, OCR

Keywords
Character extraction, character recognition.

1. INTRODUCTION

Basically, the ANPR process is divided into three main parts: Plate Detection, Character Segmentation, and Character Recognition. Each of these parts plays an important role in getting the accurate result. ANPR has its application in many areas like:

- Car Parking: In this, after detecting the number plate in parking area the number plate and ticket number is linked together. Thus improves car parking management.
- Access Control: Using ANPR in access control increases the security. It also helps in dynamic access of vehicles which usually helps in storing the vehicle owner information in the database.
- Traffic Control: ANPR in traffic control is mainly used to detect the speed of the vehicle with more reliability i.e., up to 94%.
- Traffic Optimization: ANPR notes the average speed of the vehicles and reduces the rush during traffic am.
- Toll Enforcement: It controls the vehicles that passes by the toll and increases the security.

1.1 Benefits of ANPR: The ANPR equipment with an All-in-One architecture deletes the disadvantages of the generic ANPR equipment, these are the following ones:

- It is simpler: All the necessary elements for the ANPR process are integrated in the same housing. Only one device is necessary for each lane to be controlled. The equipment may be connected by Ethernet or serial communication with the client application.
- Modular architecture: If equipment with All-in-One architecture does not work, its fall does not affect to the other lanes, because the Process Unit are deleted. Installation and start-up is easier.

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Review Paper on Automated Number Plate Recognition Techniques

Anvitha Bhat H.G.
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri

Arpitha
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri

Bhavyashree S Barkuru
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri

Hemashree.J
Student
Alva's Institute of Engineering and Technology Mijar, Moodbidri

Dr. S. Mohideen Badhusha
Senior professor
Alva's Institute of Engineering and Technology Mijar, Moodbidri

Abstract:- **Automated Number Plate Recognition (ANPR) system greatly enhances the ability of police to detect criminal activity that involves the use of vehicles. This system is used by local authorities and commercial organizations in all aspects of security, surveillance, and access control and traffic management. ANPR systems use Optical Character Recognition (OCR) to read number plates through CCTV systems, which enables vehicle registration numbers to be stored, analyzed and retrieved, as required. Radio frequency identification (RFID) is a generic term that is used to describe a system that transmits the identity (in the form of a unique serial number) of an object or person wirelessly, using radio waves. It's grouped under the broad category of automatic identification technologies. RFID is increasingly used with biometric technologies for security. In this paper we are discussing about various advantages and disadvantages of different methodologies used in the different systems**

General Terms:- RFID, ANPR, OCR

Keywords:- Character extraction, character recognition.

1. INTRODUCTION

Basically, the ANPR process is divided into three main parts: Plate Detection, Character Segmentation, and Character Recognition. Each of these parts plays an important role in getting the accurate result. ANPR has its application in many areas like:

- Car Parking: In this, after detecting the number plate in parking area the number plate and ticket number is linked together. Thus improves car parking management.
- Access Control: Using ANPR in access control increases the security. It also helps in dynamic access of vehicles which usually helps in storing the vehicle owner information in the database.
- Traffic Control: ANPR in traffic control is mainly used to detect the speed of the vehicle with more reliability i.e., up to 94%.
- Traffic Optimization: ANPR notes the average speed of the vehicles and reduces the rush during traffic am.
- Toll Enforcement: It controls the vehicles that passes by the toll and increases the security.

1.1 Benefits of ANPR: The ANPR equipment with an All-in-One architecture deletes the disadvantages of the generic ANPR equipment, these are the following ones:

- It is simpler: All the necessary elements for the ANPR process are integrated in the same housing. Only one device is necessary for each lane to be controlled. The equipment may be connected by Ethernet or serial communication with the client application.
- Modular architecture: If equipment with All-in-One architecture does not work, its fall does not affect to the other lanes, because the Process Unit are deleted. Installation and start-up is easier.
- It is only necessary to provide 220V, Ethernet network or serial communication to each equipment.
- The installation is as easy as to screw the equipment with the support, to identify ANPR equipment with an IP and to adjust the objects.
- If one equipment fails, it is possible to replace it by another one. It reduces the cost.
- The wiring is reduced.
- The installation and start-up time is reduced.
- The maintenance of the system is reduced.

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Vehicle Document Verification Using Vehicle Number (VCOP-App)

Kaveri Ningappa Gunjiganvi
Dept. of CSE
Alva's Institute of Engineering and Technology

Kavyashree Rai K
Dept. of CSE
Alva's Institute of Engineering and Technology

Anita Chalavadi
Dept. of CSE
Alva's Institute of Engineering and Technology

Fathima Ashika
Dept. of CSE
Alva's Institute of Engineering and Technology

Ass. Prof. Vidya
Dept. of CSE
Alva's Institute of Engineering and Technology

***Abstract*:- The police forces around the world use vehicle number plate for legal vehicle authorization purposes, to check if a vehicle is registered or licensed. An application which will facilitate the user for not worrying about carrying the documents of their vehicle. We can digitalize all documents which are taken care of with so much efforts and hard work. The aim is to design a app which takes the vehicle number manually, then the details retrieved from the number plate in text format is used to extract all the important information of the vehicle like, the name of the owner, address of the owner, date of registration of the vehicle etc. from the database. The police can verify whether the documents are fake or not. This application will make sure you have all the documents like PUC, RC Book, Insurance papers can be easily handled. This app can help you not to carry all the documents with you every time you drive a vehicle, which is used by the police only. If he breaks any rules of driving the fine can be added. Applied fine details and insurance dues will be sent as message to the owner. If any other person except the owner drives the vehicle, then a message alert will be sent to the owner of the vehicle. For us, it is useful as we do not have to carry our documents to every place with the fear of losing them. The user app can be used by owner of the vehicle which extract the information of his vehicle and user can pay the fine through it.**

General Terms:- Optical character recognition algorithm (OCR).

Keywords:- Image Processing PUC, RTO, VCOP, RC Book.

1. INTRODUCTION

This paper focuses on mobile application development for Google's Android OS, a hugely popular open-source platform based on the Linux-kernel and Java development environment. Android market is the online software store developed by Google for Android based devices. An application program called "Google Play" is preinstalled on most Android devices and allows users to browse and download applications published by third party developers, hosted on Android Market.

RTO: Regional Transport Office (RTO) is an Indian government bureau which is responsible for the registration of vehicles and the issue of Driver's Licenses in India. All motorized road vehicles are tagged with a registration or license number in India. The License plate (commonly known as number plates) number is issued by the District-level Regional Transport Office (RTO) of respective states. This Application will help a traveler or passenger in many ways and even in the case of a Police Investigation of an accident or vehicle-related crime, witnesses usually remember the initial Area Code letters it is then quite simple to narrow down suspect vehicles to a much smaller number by checking the Database without having to know the full number. It is also required during the sale of a Vehicle and transfer of its Ownership. Also this App helps you to find your own city, district or state registered vehicle in a picnic or a tour spot.

For decades, vehicle documents is being existing; the reason it is being playing an essential role is because mandatory rule for the drivers to have a vehicle details with him or her whenever and wherever he or she travels else they can be fined or can also be charged for it. Therefore, it is important for a driver to carry the documents every time. However, what if the driver has lost, stolen, or damaged document? On the other hand, if he has forgot to carry vehicle documents from home or workplace.

Day by day the human population is increasing and use of vehicles is also increasing due to increased human needs. As a result of it, the control of vehicles is becoming a big complex problem system. Most of us keep the vehicle papers in the vehicle itself, which is not at all safe in case of theft. In today's world, it is not secure to carry our vehicle papers and wherever we go. Hence, a system must be designed in which it is not necessary to carry our important documents to each and every place for verification. Number plate recognition is one of the methods that allows the extraction of number plate information. On the other side, the details of each and every vehicles details and owner details are stored in database that is accessible only by the cop or traffic police who catches a driver when they (the driver) break the traffic rules.

Therefore, it is necessary for a cop to have a quick access to the database where any fine can able to add on him or

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

A Review on Smart Bus Ticketing and Tracking System using IoT

Bhat Apoorva
Dept of CSE
Alva's Institute of Engineering and Technology

Kavitha C
Dept of CSE
Alva's Institute of Engineering and Technology

Bharath M
Dept of CSE
Alva's Institute of Engineering and Technology

Nitesh Narayan Vaidya
Dept of CSE
Alva's Institute of Engineering and Technology

Prof. Harshitha G M
Dept of CSE
Alva's Institute of Engineering and Technology

***Abstract*:- The most vital transport challenges are frequently identified with urban territories and happen when transport system, for a variety of reasons, cannot fulfill the various prerequisite of urban versatility. Keeping in mind the end goal to manage these negative aspects, in this paper, we proposed smart bus ticketing and tracking system that any passenger with an application on the smart phone can get information like current location of the bus, bus routes on a map and crowd on the bus and the list of every single conceivable buses arriving in within fifteen minutes. An IoT empowered system application gives three principle information services for bus users: 1) Micro-navigation and 2) Crowd-aware route recommendation 3) Bus arrival time estimation. Micro-navigation alludes to fine-grained relevant direction of travelers along a bus travel by recognizing boarded bus vehicles and tracking the traveler's journey advance. Crowd-aware route recommendation gathers and predicts crowd levels on bus voyages to recommend better and less crowded courses to bus riders Bus arrival time estimation gathers bus locations and predicts the evaluated landing time to traveler's area with shared route details.**

General Terms:- Interactive Polyline Encoder Utility algorithm

Keywords:- Global Positioning System, Google, Smart, phones, Real-time systems

1. INTRODUCTION

As the population in urban areas keep on growing there dependably exists a vulnerability as for time of arrival of bus at the bus stop and bus networks in thick urban territories are frequently considered as mind boggling and hard to navigate. Additionally infrequently transports are crossed out because of their breakdown strikes water signing on the streets or some other reasons, the workers are never educated about such cancellation of buses. The "bus Ticketing and Tracking system" that is proposed intends to give a powerful and effective framework to enable facilities to track buses, know evaluated time of entry of any bus, capacity to book tickets ahead of time and to keep up a database for ticketing transaction by means of a flexible application on the android platform.

Real time vehicle tracking to follow routes and locations driven by a bus is done with the help of global positioning system (GPS). Users can likewise see bus routes on the map with their geographic and nongeographic qualities. GPS and Google maps are utilized for showing current areas of buses on the maps together with the related course data [8]. The RFID tags are utilized to recognize individuals and other data like payment, validity etc. Bidirectional sensor on the door is utilized to take the people count tally in the bus. Arduino UNO is a microcontroller to program with real time clock (RTC). A real time clock is a computer clock that monitors the present time. In light of IOT the travelers can get to this data of a transport in view of user source and destination through the android application [5].

The challenge here is to give all the required tracking and landing data and in addition the ticketing facilities to the traveler. In spite of the fact that these facilities can be given at a bus stop, it crushes the point of giving adaptability which is an essential piece of this task. Subsequently the android application is created as a User Interface. The principle reason for this application is to give a simple interface to get to all the different highlights of the system and to make full utilization of its functionality. A large portion of the facilities provided by this framework will wipe out the issues looked because of vulnerability of arrival of buses.

2. LITERATURE SURVEY

Research on open transportation has generally centered around techniques to enhance the effectiveness of the physical transport framework. For example, service scheduling is considered as a critical issue for productive transport activity [7]. Be that as it may, Camacho et al. [3] contend that this point of view is simply inspired by the interests of transport administrators and misses the mark regarding the data needs of travelers in the advanced age. Rather than settling operational transport issues, they recommend to outline traveler driven data framework that can enhance the traveler's journeys.

A critical change of public transport data accessibility has been the improvement of portable transport applications. One Bus Away is the main portable application that brought estimates arrival times of transports on cell phones [6]. The creators indicated experimentally that pervasive

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Automatic Toll Collection System using RFID

Sumathi S M
Nikhitha Kale M
CS&E
AIET
Mijar,Moodbidri

Manasa R
Jithesh A
CS&E
AIET
Mijar,Moodbidri

Megha D. Hegde
Project guide of
CS&E
AIET
Mijar,Moodbidri

***Abstract*:- Automatic Toll Tax systems have really helped a lot in reducing the heavy congestion caused in the metropolitan cities of today. It is one of the easiest methods used to organize the heavy flow of traffic. When the car moves through the toll gate on any road, it is indicated on the RFID reader that it has crossed the clearing. The need for manual toll based systems is completely reduced in this methods and the tolling system works through RFID. The system thus installed is quite expedient reducing the time and cost of travelers since the tag can be deciphered from a distance.**

General Terms:- RFID,JVM, CGI , RTO, CLI

Keywords:- RFID: Radio frequency Identification. JVM: Java virtual machine. CGI: Common Gateway Interface. RTO: Regional Transport Office. CLI: command-line interface.

1. INTRODUCTION

1.1 Introduction

The transportation is the backbone of any country's economy. Improvement in transportation systems result into the good lifestyle in which we achieve extraordinary freedom for movement, immense trade in manufactured goods and services, the higher rate of employment levels and social mobility. In fact, the economic condition of a nation has been closely related to efficient ways of transportation. Increasing number of vehicles on the road, result into number of problems such as congestion, accident rate, air pollution etc. All economic activities for different tasks use different methods of transportation. For this reason, increasing transportation is an immediate impact on productivity of nation and the economy. Reducing the cost of transporting resource at production sites and transport completed goods to markets is one of the important key factors in economic competition. Automatic toll collection is a technology allows the automated electronic collection of toll costs. As it is studied by researchers and also applied in various expressways, bridges, and tunnels require such a process of Automatic Toll Collection System. It is capable of determining if the vehicle is registered or not, and then informing the management center about to process violations, debits, and participating accounts .The most excellent advantage of this system is that it is capable of eliminate congestion in toll plaza, especially during those seasons when traffic seems to be higher than normal.

The benefits of the system for users are shorter queues at toll plazas by increasing toll booth service rates, faster and more efficient service, the ability to make payments by keeping a balance on the card itself and the use of postpaid toll statements. Other general advantages include minimization of fuel wastage and reduced emissions by reducing deceleration rate, waiting time of vehicles in queue, and acceleration. For Toll Operators, the benefits include lowered toll collection costs, better audit control by centralized user account and expanded capacity without building more infrastructures. Thus, the Automatic Toll Collection system is useful for both the motorists and toll operators.

1.2 Problem Statement

The main objective behind this proposal is to create a suitable Automatic Toll Collection system to be implemented. The term "suitable" here refers to minimal changes in the current infrastructure with maximum increase in efficiency.

The base idea behind implementing RFID Based Toll System is to automate the toll collection process and to reduce manual operation in toll booths and the long queues at toll booths using RFID tags installed on the vehicles. In addition to collecting toll, it not only helps the vehicle owners and system administrators from vehicle theft detection but also can track over speeding vehicles, and crossing the signals. Automatic Toll Collection system using RFID in our day to day life avoids the fuel loss, saves time in collecting toll, avoids financial loss and monitors the traffic.

1.3 Existing System: There are two methods of collecting tax presently used they are First is the traditional manual method where one person collects money and issues a receipt. The other one is the Smart Card method where the person needs to show the smart card to the system installed at the toll tax department to open the Gate.

1.3.1 Drawbacks Of Existing System: Both the above mentioned method for collecting tax is time consuming method. Chances of escaping the payment of tax are there. It leads to queuing up of following vehicles.

1.4 Proposed System

1.4.1 Automatic Toll Collection: The RFID Readers mounted at toll booth will read the prepaid RFID tags fixed on vehicles' windshield and automatically respective amount will be deducted. If the tag is removed from the windshield then cameras fixed at two sites at toll plaza take snaps of the front and back number plate. Since every vehicle registration ID is linked to users account, toll can be deducted from the account bank directly.

AUTOMATED NUMBER PLATE RECOGNITION TECHNIQUE FOR VEHICLE IDENTIFICATION

Dr. S Mohideen Badhusha, Anvitha Bhat H G, Arpitha, Bhavyashree S B, Hemashree J
Dept of Computer Science and Engineering, Alva's Institute of Engineering and Technology, Mijar, Moodbidri,India

Abstract—Automated Number Plate Recognition (ANPR) system greatly enhances the ability of patrolling in detecting criminal activity which involves the use of vehicles. This system can be used by local authorities and commercial organizations in all aspects such as security surveillance, access control and traffic management. Generally automatic number plate recognition system can be categorized by two strategies namely Optical Character Recognition (OCR) and Radio Frequency Identification (RFID). ANPR system makes use of OCR technique to read number plate through CCTV camera and RFID technique is used to transmit the identity (in the form of a unique serial number) of an object or person wirelessly using radio waves. In this work, we are combining both ANPR and RFID system to improve the accuracy in vehicle plate detection. The accuracy of the proposed system is 15.33% greater than that of the average accuracy of other existing systems in detecting the number plate thereby enhancing the security of the surveillance area.

I. INTRODUCTION

Automated Number Plate Recognition (ANPR) also known as Automated License Plate Recognition (ALPR) makes use of the pattern recognition technique to read vehicle number plates. Firstly ANPR camera captures the number plates of the vehicles that passes through them. This captured image is then fed into a computer system to fetch the details of vehicles. A camera is linked to a computer. As a vehicle passes through the camera, ANPR reads number plates from digital images captured through camera located either in a mobile unit, in-built in traffic vehicles or via Closed Circuit Television (CCTV). The digital image is then converted into necessary information which are processed through the ANPR system. The ANPR system consists of three different components

- Monochrome/Color camera
- IR projector, and
- The processing board.

Basically, the ANPR process is generally classified into three main phases namely Plate Detection, Character Segmentation and Character Recognition. Each of these phases plays an important role in getting the accurate result. From the survey it is observed that the character segmentation needs to be focused further so as to improve the accuracy of the system by 15.33%.

ISBN No. 978-81-923607-3-7

ISSN2394-3777 (Print)
ISSN2394-3785 (Online)
Available online atwww.ijartet.com
International Journal of Advanced Research Trends in Engineering and Technology
(IJARTET) Vol. 5, Special Issue 14, April 2018

A LOCATION SPECIFIC FRAMEWORK TO UNITE TRAINERS AND LEARNERS

AKASH KUBASAD, NITESH NARAYANA VAIDYA, MR. VASUDEV S.
Alva's Institute of Engineering and Technology, Shobhavana Campus, Mijar, Moodbidri
{akashkubasad, niteshvaidya591, shahapurvasu}@gmail.com

ABSTRACT

The joy meeting an expert, for a craving learner. The proposed framework connects the ones who are eager to share knowledge to those who are passionate to learn. The system allows anyone to sign up for teaching or learning regardless their profession. Major features of the proposed framework include displaying the location of trainers and trainees as well as it provides all their contact details. The users can interact within the platform by making use of real time messenger application developed using Firebase. This empowers our app's backend, it includes authentication, real time instance updates and data storage. The framework also incorporates Google maps API's to locate users as well as filter the trainers according to the interest of trainees. The application is feasible for those who have decent information on a specific topic and can influence and impart an individual with rich amount of data. From a learner's perspective, anyone who wants to learn anything new, can join the platform and connect withtrainers.

Keywords*—real time messaging; firebase; real time instance update;google maps API;*

I. INTRODUCTION

Over the last decade, the number of people taking online courses and therefore using technology as a tool to enhance their education has increased drastically. Online education is a rapidly fluctuating sector that primarily focuses on enduring and delivering quality education and excel in professional communication[9]. It is difficult to learn everything in classroom since the world is significantly changing with rapid advancements in each and every platform. Most of thestudents are not able to pay for classroom teaching because of poverty. On the other hand, students have access to internet technology on their fingertips which can be used efficiently. Most of the times in traditional classroom teaching approach, students are not able to clarify doubts because of lack of communication skill. Such problems are solved by the growing social media, internet and remoteapplications.

In this era of digitization, society is aware of benefits that can be gained from social media networks and build an effective bonding among the community. With an end goal of providing an application that helps learners and teachers to share knowledge and guide the needy who is seekingeducation, a framework is proposed. It helps various professionalstoexchangetheirideasandcommunicatetosolve issues raised to learners. People exchange information in vernacular languages but there is need to express it to the outsideworldwithagloballanguage.Theproposedframework will let the learners and trainers to read and understand the massive growth in technology. Though one who is not atrainer by profession but has enormous amount of knowledge can share it for free of cost on such platforms which can be beneficial to theneedy.

II. BACKGROUNDSTUDY

Location tracking is becoming very much popular in these days. Any location or place can be identified in terms of the geographical coordinates. The location is tracked using any one of the services of the Google [8] i.e. Google maps API, Google Geolocation API, Google places API [1].The benefits of the geolocation are far-reaching and are being leveraged in every part of enterprises – manufacturing, retail sales, financial services, insurance, transportation, utilities and governments. People tend to use geolocation for effective utilization of resources and manage their time. Most of the applications work only when the GPS is

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Study on Remote Controlling and threat detection of Home appliances using Arduino

Karthika K ,K M Thomas, Sindhu M R, Vimal K and Sayeesh
Department of computer science and Engineering AIET Moodbidri

Abstract—**Today we are living in 21st century. It is important to control the home from want area. Home computerization is the control of any electrically and gadgets gadget in our home and office, regardless of whether we are there or away. There are many items accessible that enable us to control over the gadgets naturally with utilizing Arduino microcontroller display either by remote control or even by website page or by portable application. This Home computerization framework give the client remote control and observing of different apparatuses inside their home. Productive administration of power at home computerization utilizing Arduino is the way to the present patterns being taken after to change them into a superior, speedier and solid mechanical arrangements or frameworks. Mechanization alludes to strategy of influencing frameworks to control themselves with a view to diminish human exertion. With this rule came the possibility of our task "Remote control of Home machines utilizing Automation System". The proposed venture controls electrical apparatuses and segments at home to be consequently or remotely controlled by Arduino and android application. The foundation of this framework is the Arduino microcontroller and Wireless Internet which gives the interface between the client and the apparatuses. Through web client can get to or work any associated gadget from anyplace and framework likewise checks for any gadget left exchanged on by client to turn it off. With the utilization of different sensors whole association is built up amongst Internet and the gadget utilizing wifi. This gadget is intended to be ease and to control assortment of gadgets .Home computerization advantages will be center around how this can be accomplished through utilization of Arduino , physical switch,webpage and advanced mobile phone**

Keywords: Arduino, Relay, Server, WiFi module, Smartphone, GSM Module.

I. Introduction

Home robotization is the control of any or every single electrical gadget in our home or office. There are a wide range of sorts of home computerization framework accessible. These frameworks are normally outlined and obtained for various purposes. Truth be told, one of the significant issues in the territory is that these diverse frameworks are neither interoperable nor interconnected. There are number of issues include when outlining a home robotization framework. It ought to likewise give an easy to understand interface on the host side, with the goal that the gadgets can be effortlessly setup, checked and controlled.In shrewd home frameworks, the web is additionally use to guarantee remote control. For a considerable length of time, the web has been broadly use for the procedures, for example, surfing on the pages, seeking data, visiting, downloading and establishment. By the fast advancements of new innovations, observing, controlling administrations have been begun to be served alongside web as an instrument giving communication hardware and gadgets. The framework can be use in a few spots like banks, healing facility, labs and other complex computerized framework, which drastically diminished the dangers of unapproved entry.The fundamental motivation to build up this framework is to spare time and labor alongside accommodation .

II. Related Work

Shrewd home isn't another term for science society, it is been utilized from decades. As electronic innovations are propelling, the field of home robotization is extending fastly. There were different keen frameworks have been proposed where the control is by means of Bluetooth , web and so forth. Bluetooth capacities are great and the vast majority of current workstation/work areas, tablets, note pads and mobile phones have worked in connector that will in a roundabout way diminish the cost of the framework. Be that as it may, it restrains the control to inside the Bluetooth scope of the earth while most different frameworks are not all that doable to be actualized as minimal effort arrangement. In Wi-Fi based home computerization framework is exhibited. It utilizes a PC (with worked in Wi-Fi card) based web server that deals with the associated home gadgets. The framework underpins an extensive variety of home mechanization gadgets like fans, lights, other home machines. A comparable engineering is proposed in where the activities are composed by the home operator running on a PC. In our paper we show web controlled frameworks comprising of a web server, database and an android application for interconnecting and dealing with the gadgets.

III. System Requirment

A. Hardware Implementation

1) Aurdino Uno: Arduino is an open source programmable circuit board that can be incorporated into a wide assortment of makerspace ventures both basic and complex. This board contains a microcontroller which can be modified to detect and control questions in the physical world. By reacting to sensors and information sources, the Arduino can collaborate with an expansive exhibit of yields, for example, LEDs, engines and showcases. In light of it's adaptability and minimal effort, Arduino has turned into an exceptionally mainstream decision for creators and makerspaces hoping to make intelligent equipment ventures.

A standout amongst the most prominent Arduino sheets out there is the Arduino Uno. While it was not really the principal

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
ICRTT - 2018 Conference Proceedings

Sensor based Attendance Management System

Safnaz K[1], Sony G Kotian[2]
Veerabhadra Swamy M B[3], Umesh Pujar[4], Vasudev Shahapur[5]

Abstract— **Attendance plays a vital role in evaluating a student. In the current scenario of our education system we find that there are lot of technologies to use but still we are following the traditional system. Currently in the universities and schools, the lectures themselves take the attendance and update it manually in the database. This traditional method of taking attendance manually is very time consuming and often leads to human error. If we talk about the technologies we find that there are lot of tools available to reduce the burden of lectures. Using RFID is one example of that. If we combine RFID and IOT we can do the work automatically and there is no need to do it by lectures. Here we are planning to use the cloud as storage for better performance. Using IOT and cloud we can access it from anywhere and anytime which will provide us the better proficiency and flexibility. This attendance system aims at facilitating colleges and schools to capture the attendance automatically with the help of RFID. The system should store the data in the centralized database system so that an intelligent system can be built over the same to make it convenient and to eliminate existing problem such as period level attendance, approval of attendance , issues due to change in periods.**

Keywords—RFID, sensor, IOT

I. INTRODUCTION

This attendance system aims at facilitating colleges and schools to capture the attendance automatically with the help of RFID. The system should store the data in a centralized database system so that an intelligent system can be built over the same to make it convenient and to eliminate exiting problems such as period level attendance, approval of attendance, issues due to change in periods.If we talk about the attendance system in universities and schools, lecturers did that work manually. Lecturers take the attendance and update it manually in the database. If we talk about the technology we found that there are lot of tools to use and reduce the burden of lectures. Using RFID is the one example of that. If we combine the RFID and IOT (Internet of Things) then we can do it automatically and there is no need to do it by lectures. Here we are planning to use the Cloud as storage for better performance.

III . PROBLEM STATEMENT

Sometimes people don't want to use technologies because of the high cost of that. After doing a lot of research that how can we use the technology at low cost we found RFID which is cheaper in price and can be useful for the attendance. RFID stands for radio frequency identification. Another important quality is battery less tags system of RFID.

Another important quality is battery less tags system of RFID. RFID is mainly combination of tags, an antenna and IC chip which is having the Unique Identification number. To detect that we have the RFID Reader, Which will read the unique ID of the RFID card.

II. MOTIVATION SCOPE AND OBJECTIVES

Motivation: In the current process the attendance system than there are lots of disadvantage of this system. The biggest drawback is if we are going to use this system than there are chances that students can mark proxies easily. To overcome this RFID tag can be used to read the attendance of the students.

Scope: The system after getting the comparison result we are retrieving the details of student which have the details like RFID unique no, Name, Branch, and Address. Now we have the result from RFID reader. Here our main task starts, read the student id and updates it to the server. This type of system is suitable for all age categories. There are few points that justify the need for this system.

- Easily accessible
- Central place for all tasks
- Easy to use
- Faster and less work
- Saving of time

Objectives: To reduce the time involved in managing attendance. Hence overall operation cost for the college. 1) To improve the quality of attendance system. 2) To track fraudulent behaviour of student and timely report to parents.

3) To improve the quality of education system.

IV. EXISTING SYSTEM AND PROPOSED SYSTEM

Existing System: The existing system is based on manual system, which takes a lot of time to get course done. In the manual approach all the details of the topic are maintained which is not really necessary. Also there is a chance of errors. In the current approach, students and teachers have less communication between them and other staffs within the institution, also there is no provision for an information dissemination medium from the management of the institution to the students.

A Holistic Approach to Influence Maximization

Nireshwalya Sumith, Basava Annappa, and Swapan Bhattacharya

Abstract A social network is an Internet-based collaboration platform that plays a vital role in information spread, opinion-forming, trend-setting, and keeps everyone connected. Moreover, the popularity of web and social networks has interesting applications including viral marketing, recommendation systems, poll analysis, etc. In these applications, user influence plays an important role. This chapter discusses how effectively social networks can be used for information propagation in the context of viral marketing. Picking the right group of users, hoping they will cause a chain effect of marketing, is the core of viral marketing applications. The strategy used to select the correct group of users is the influence maximization problem.

This chapter proposes one of the viable solutions to influence maximization. The focus is to find those users in the social networks who would adopt and propagate information, thus resulting in an effective marketing strategy. The three main components that would help in the effective spread of information in the social networks are: the network structure, the user's influence on others, and the seeding algorithm. Amalgamation of these three aspects provides a holistic solution to influence maximization.

Keywords Algorithm • Diffusion • Influence maximization • Social networks • Viral marketing

1 Introduction

With the advent of Web 2.0 came a range of applications that are used in many ways by people across different sections of the society. The social network is one such application that plays a very important role across the world. It is not just a platform for sharing ideas, it is also seen to play an important role in the economic growth of

N. Sumith (✉) • B. Annappa
National Institute of Technology Karnataka, Surathkal, Mangaluru, India
e-mail: s.nireshwalya@gmail.com; annappa@ieee.org

S. Bhattacharya
Jadavpur University, Kolkata, India
e-mail: bswapan2000@yahoo.co.in

H. Banati et al. (eds.), *Hybrid Intelligence for Social Networks*,
DOI 10.1007/978-3-319-65139-2_6