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Advanced Bank Security with Working and Non Working Hours Using Raspberry-Pi

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Abstract: *decision. The security system is planned to perceive the unlawful entrance in the bank locker room zones that ordinarily happens in cases of the thefts. The genuine stress with current physicallymanaged security structure is that if the robbery occurs by then the banks are not had the ability to recognize the plunderers due to non attendance of confirmation. In our investigation we use controllers with different sensors (Metal or Fire) as observatory to recognize or perceive intruder or unpredictable activities inside the bank and ATM. The structure will focus on the security of the bank locker rooms in an effective course by recognizing and controlling unapproved development. The proposed security system will save the pictures at whatever point the development will be recognized that can be used in future for examination. The system will pass on the image data reliably to the remote territory control rooms using web based checking through neighborhood. The pepper proposed an effective watching and controlling system for bank locker rooms which is completely self-*
Keywords *- Raspberry -pi, keypad, IOT, Motor Fire sensor,Metal Detector*

I. INTRODUCTION

For a common individual the bank infers a spot which addresses a best component of security. Reliably we are drawn in with banking trade. To confirm our exorbitant pearls, basic reports or cash, we use to use bank locker rooms. It has transformed into a basic bit of our life. To get by in this forceful world and for a predictable improvement, the budgetary business needs to give an abnormal state of security. Because of the open interest every day new branches are opening. The more number of branches required more noteworthy security. Current structures and organizations are ending up to a regularly expanding degree independent and the monetary region isn't unreasonably far from it. Video observation in moving domains has transformed intoa present topic of energy for PC vision development. You can see all the branches are under the perception of Web cameras, alert systems, emergency gets, etc. The Web cameras are used to screen the unapproved activity. It ought to be watched reliably by an individual which is troublesome work; especially in nighttimes. The alert emergency get moreover needs to be pressed physically.

This conventional structure requires some portion of work. A structure can be made which will customized recognize unapproved development and instruct to the security experts concerning the banks by different ways with no need of a person. The controller Based Bank Security System fulfills all these necessities. A model of this security structure has been arranged in the composition to extend the component of security in bank locker rooms enough.

The development area will be done through camera itself and the hardware related with it will give unmistakable ways to deal with light up the security experts for instance using alert system a notice message and the image which has recognized the development will be normally exchanged on page which can be downloaded from wherever. The fundamental point of this examination is to structure a framework for alarming burglary and to auto capture the criminal in bank or ATM itself from brought together checking unit. The motivation behind the framework is to plan a savvy and concentrated checking and control framework utilizing IOT advances.

The basic objectives of bank security system are following the bank locker room locales, acknowledgment of development and making the principal control move. The further portions will depict that how these objectives have been practiced.

1.1. Problem Definition

End to and Security in the IP Word . Networking And Security the important of and to and in advanced Bank Security System .the cost of personalizing connected Devices.

1.2. Objective

- ❖ All bank zone in security purposes
- ❖ Completely self dicision in bank locker
- ❖ Banking transperancy
- ❖ Prevent night -time Robbery
- ❖ To protect banking confidential
- ❖ Prudential

II. RELATED WORK

The current surveillance systems and services are automated and the banking sectors are also moving towards get more automated in every aspect of security layers in the bank. In computer vision technology, video surveillance is having high demand, and a current topic of interest. These days all the security layers are under the surveillance of Web cameras, alarms systems, emergency buttons etc. The Web cameras are used to monitor and capture the unauthorized movements and activities. The surveillance needs a human intervention continuously irrespective of day and night, a very strict and vigilant human intervention for 24*7 is very difficult task. Most of the security layers and the alarms need human intervention (need to be pressed manually).The traditional systems need more human intervention more man power.

I.

II. To overcome the security flaws and minimize the man power, we need a new system that continuously monitors and detects the unauthorized movements and alters the security officials of the bank by various ways without any human intervention. The best option is to make use of the microcontroller Based Bank security System that takes care of all the flaws which usually happen in conventional systems. A new paradigm for security system has be designed to effectively enhance and increase the level of security especially in more high secured areas like bank locker rooms. Any unauthorized motion detected in the high secured zone will be monitored by Web cameras and immediately intimated to higher officials by the three different ways. Automatic alarm system, automatic warning message to mobile devices and the unauthorized motion detected is captured as image and will be automatically uploaded in the official cloud enabled web page, which can be downloaded from anywhere any time and any device .

III.

These are some of the existing Smart Security designs that have been implemented-(a) GSM Based Security System PIR sensor detects motion by sensing the difference in infrared or radiant heatlevels emitted by surrounding objects. The output of the PIR sensor goes high when it detects any motion. The range of a typical PIR sensor is around 6 meters or about 30 feet. When the PIR sensor detects any motion, the output of the sensor is high. This is detected by the Arduino. Then it

IV.

communicates with the GSM module via serial communication to make a call to the preprogrammed mobile number. An important point to be noted about PIR sensors is that the output will be high when it detects motion.(b) IR based security alarm system- IR based security alarm circuit can detect any movement and triggerthe alarm. This circuit is very useful in homes, banks, shops, restricted areas where an alert alarm is needed on any movement. This circuit is based on IR sensor where an IR beam is continuously falling on a photodiode, and whenever this Infrared beam breaks, by any kind of movement, alarm is triggered. In this IR based security alarm circuit, we have placed IR LED in front of photodiode, so that IR light can directly falls on photodiode. Whenever someone moves through this beam, IR rays stops falling on photodiode and Buzzer start beeping. Internet of things has been governing the electronics with cloud services influencing the ever increasing electronics product segment. Security and safety has always become a basic necessity for urban population. The paper proposes a security system based on Open source cloud server “things speak .com” and a low cost esp8266 Wi-Fi module The project includes a PIR module which constantly monitoring the Home or Work space to be monitored .When the PIR module detects a intruder it sends a signal to the Atmega 328p microcontroller and the controller is connected to a Esp8266 wifi module and also to a alarm system. The System transmits an alert signal to the Open source cloud which provides a alert signal on the users mobile phone. The system employs a second esp8266 module which is programmed to act as a web server, which allows the user to activate or deactivate the security system by means of any device with internet. The system

also employs a thumb print reader rs305 which controls the opening and the closing of a safety locker door. Thus the system uses esp8266 Wi-Fi module and atmega328p to control the security system from the user's mobile phone by means of any device with a potential internet connection.

III. SYSTEM ARCHITECTURE

In this project we are using Raspberry-pi for Controlling Fire sensor is Using to detect any burning Condition happened and buzzer will be ON Condition metal detector Useful person take along weapons activate and buzzer Counting person entered for the any metal detector ON PIR Sensor for in the bank keypad System used for locker dialing is Correct, password. door opened otherwise putting/ dialing wrong password buzzer in ON Condition web Camera useful for image processing of bank indoor All the data display on Mobile / Laptop by Using the TOT cloud data by link

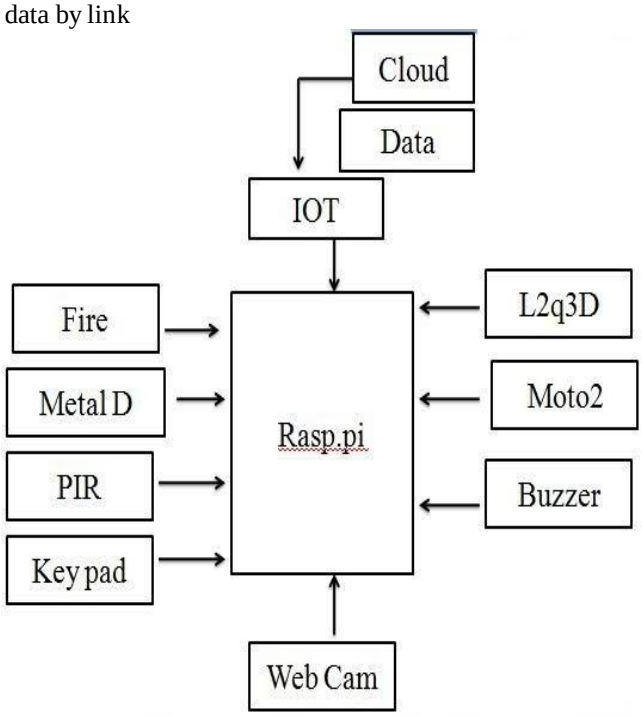

Fig 1..Block Diagram of Advanced Bank Security

3.1 Application:

- Private Lockers
- Banks

3.2 Advantages

- Number of sensors used detect various faults, thus the bank may be protected from various unwanted incidens.
- The feature of gate locking enables to capture a thief or terrorist.
- The system shows the time of attack or theft and visual scene is captured.

3.3.Flow Chart

The Given Sigure Ges the System Imfornapion Slow of Advanced Bank Security With Working And Nonworking Hours Using raspbtry PI With the help of Machine Learning Algorithms.

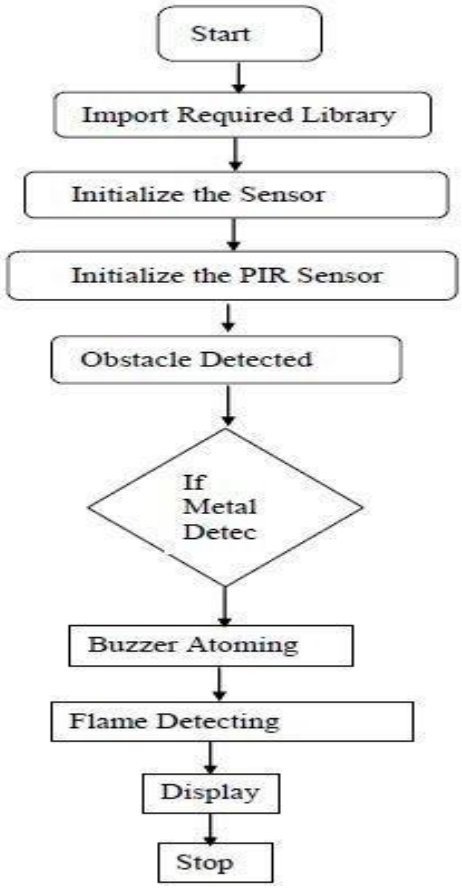

Fig 2..Flow chart

IV. CONCLUSION

This project demonstrates an insignificant exertion, shrewd and confirmed structure for the bank locker room area. The structure will focus on the prosperity of the bank locker rooms in a practical way by distinguishing and controlling unapproved development. The planned safety system will distinguish the development through camera and gives security by taking three unmistakable control exercises. In this system visual perception estimation has been completed for development recognizable proof on the host PC and the consequent picture data has been conferred to client side PCs for electronic checking through neighborhood mastermind. The unapproved picture recognizable proof banner is also online granted. The proposed sharp structure has central focuses over the present security system like insignificant exertion, stable association, significant incorporation domain, and low correspondence cost.

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