ACCESS CONTROL AND ALERT SYSTEM

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Abstract

In this world, there is a need of security in pretty much every area for example structures, banks, homes, and so on the grounds that robberies are expanded by step by step. To conquer this danger a security framework has been proposed utilizing Arduino and IR Sensor. In this innovation, At the point when the client enters the right secret phrase then the two-way confirmation a randomly produced OTP is shipped off the client gadget. On the off chance that the OTP is coordinated, the framework will be opened. On the off chance that the OTP isn't right, the client will be furnished with just the set number of possibilities (for example three possibilities in the proposed framework). So, what we did is a computerized innovation to build a very much incorporated and altered security framework at a sensible cost.

1. INTRODUCTION

An efficient, low power consumption and low cost embedded access control system for Smart home security and remote monitoring[3] based on motion detection is very important for wide range of commercial and security application. Many countries are gradually adopting smart home security control system. Today most of the home and office appliances that we interact with contain microprocessors. All of these appliances have some user interface, but many users become frustrated with the difficulty of using the complex functions of their appliances. We are developing a framework that allows users to interact with appliances through a separate user interface device that they are already carrying. Smart phones are good candidates for providing interfaces because they are common, have communication capabilities to allow connection to appliances, and are already being used for a wide range of different applications. Our framework includes an abstract specification language for describing appliances, a two-way communication

protocol, and automatic interface generation software that allows user interfaces to be customized to users and the devices they are using [2]. The most important part of any home security system is accurately detecting visitor who enter and leave through the door. An entrance guard can be managed remotely, detecting visitors at Door and alerting to user via mobile phone is the most natural way to perform security. The proposed system have added features like view video stream through mobile phone [3]. Additionally, voice alert or siren activated to alert neighbors when intruder detected. The system identifies the visitor's presence, capture and transfers the image through email automatically to home owner to recognize the visitors. The system also generates voice output whenever a person tries to enter into the house. The user can directly login and interact with the embedded device in real time without the need to maintain an additional server. It has a variety of features such as energy efficient, intelligence, low cost, portability and high performance.

2. RELATED WORK

CCTV (closed-circuit television) is a TV system in which signals are not publicly distributed but are monitored, primarily for surveillance and security purposes. CCTV relies on strategic placement of cameras, and observation of the camera's input on monitors somewhere. CCTV is commonly used for a variety of purposes, including Maintaining perimeter security in medium-to high-secure areas and installations. Observing behavior of incarcerated inmates and potentially dangerous patients in medical facilities. Traffic monitoring. Overseeing locations that would be hazardous to a human, for example highly radioactive or toxic industrial environments. Building and grounds security.

Here we have designed RADAR system with help of ultrasonic module which is placed along with the existing CCTV camera. CCTV camera for normal video recording purpose, but ultrasonic RADAR will help to find out theft activity at night time of jewellery shop and bank lockers or any other secret places where this security needed. This ultrasonic RADAR sense the environment periodically, so at normal condition we will get constant echo signal from closed room environment, that echo signal read by micro controller and analyzed. When there is any abnormal echo signal apart from normal signal that will be treated as abnormal action happening in the environment, that may be

thief or other moving object. This case taken as alert and SMS or Call for this alert will send to the user via GSM MODEM. By this method when thief enter in room, that instant we can get alert signal, not like existing CCTV footage rewind method by next day

3. IMPLEMENTATION

The proposed framework improved the ease of use and high quality of the lock framework utilizing Aurdino. The proposed strategy is executed the lock framework, to guarantee the security, for an approved and the visitor client. We tried the security viewpoints in the distinctive climate. It is decreased the human labour, and furthermore it is given greater security, for the home and building applications.

WhenapersonwantstoenterintothehousetheIRsensorwillsensethemotionandgeneratesandsendsanOTPtotheregisteredmobilenumber.WhenthevisitorinputsthereceivedOTPonthekeypad,thedoorlockissettoopen.Ifthetwonumbersdonotmatchthevisitorcannotaccessthedoor.

4. EXPERIMENTAL RESULTS
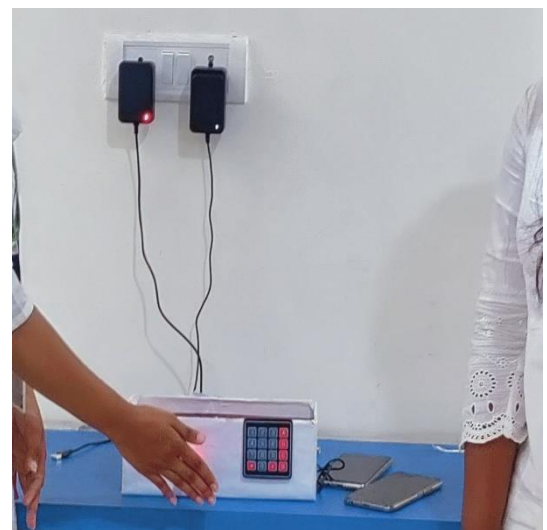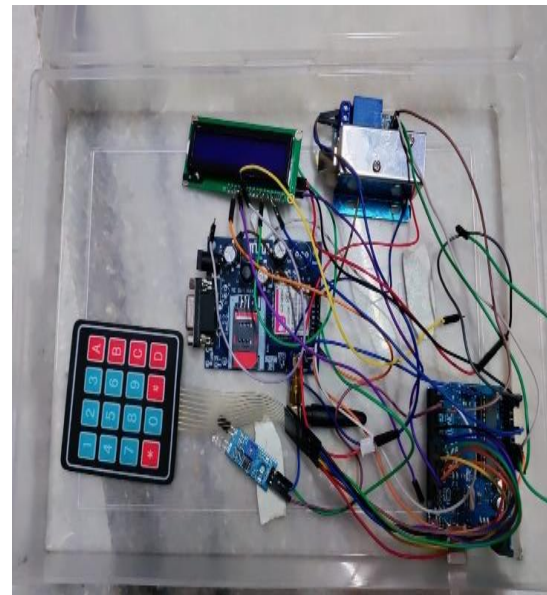
5. CONCLUSION

The proposed framework improved the convenience and high quality of the computerized lock framework utilizing ARDUINO. The computerized lock framework assumes a huge part, to give the security and decrease the robbery in the home and workplaces. It has decreased the human labour, and furthermore it is given greater security.

6. REFERENCE

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