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Extricate the Indigent

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ABSTRACT

Many people are under the threat of domestic abuse, or health care emergencies. People are afraid to talk about this outside but at the time of suffering, they will only think to make someone help them from the pain. To avoid the helpless issues in life as no people should suffer from the unprotected or defenseless situation. No one should get raped, no one should die without medical care/suffocation. Every life in this world has its own right to live in a world without fear. Accommodating a wall or a wearable system which can link to the nearby 5 homes of the unaccompanied person's house with a get down the button or turn on the speaker which alarms to the available houses, so that we can recuse the person or kid in case of danger or emergency.

Keywords— *Home Security, Alarm System, Safety, Emergency Help, Alert*

1. INTRODUCTION

Installing a home security system means to protect your home and valuables, and to keep your family safe from potential break-ins by burglars. FBI burglary rates of homes state that 1 in 3 homes without a security system will fall victim to a burglary as compared to 1 in 250 homes that do have a security system. One of the main benefits of having an alarm system is to protect valuable belongings in the home. An alarm system in the household will scare off burglars and it will also send notification to your local authorities if someone did try to break into your property.

Some criminals break in and steal valuables. Others break in to hurt anyone they find inside. A home security system will deter many criminals before they even start the act. These criminals don't want the police to catch them. Our homes are not safe for a kid to stay alone, or the health emergency of our grandparents or parents in the middle of the night when we are not there. Through this system we can avoid the helpless issues in life to a limit.

2. EXISTING SYSTEM

As it is known every day, it wakes you up with a new electronic discovery into reality. Electronics life loves working with security systems, among them we found relevant common topics to our project.

2.1 Smart home surveillance application:

Doorbell camera, smart lock and motion detection. Connection to any local mobile network. Predictive maintenance and device monitoring

2.2 Smart home security system

Depending on your home automation setup, you can even pair your lock with a video doorbell, so you can see who is at the door before you unlock it, or have an indoor security camera begin recording when a door is unlocked. Just remember: The more features you get, the more you can typically expect to spend

2.3 Laser based security system

The circuit, construction and setup for the Laser Security System is very simple. If used with a battery, the laser security system can work even when there is a power outage. Laser Security System can be used in safety lockers in our homes, where even if the

locker's code is hacked, it acts as an additional layer of security. Apart from security systems, this laser based setup can also be used to check if pets or babies cross a certain boundary.

2.4 Biometric system

Integrating biometrics into your home not only keeps you safe but streamlines your personal security. These devices improve efficiency through quick responses and scrutineer's software that keeps access to an absolute minimum.

3. DESIGN AND IMPLEMENTATIO

Here we used OLED Display- For displaying the details Wireless Communication Module – NRF24L01 it's a 2.5GHZ wireless transceiver module by using this node communication is possible Atmega328 All the operations are done by this RFID Reader – for reading ID ESP01 – for IOT Send all notification to cloud.

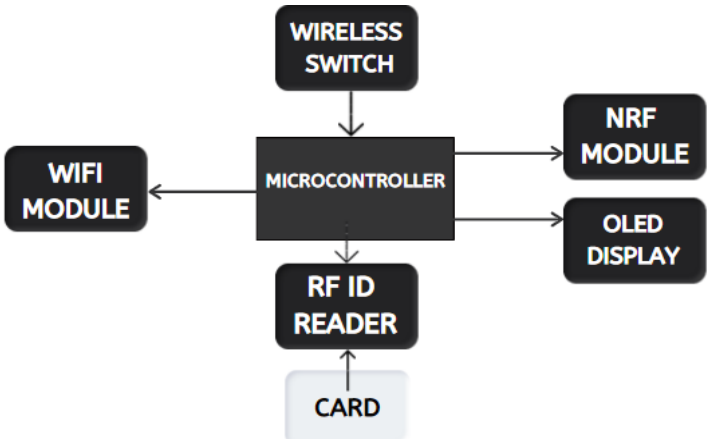

Fig. 1: Block Diagram

It is a home security module that includes multiple devices with multiple addresses. The multiple devices are installed in different Houses within a range of min 800 m radius. The System has been compact and easy to use. When a panic situation arises the user can trigger the device from anywhere (inside the house) using a wireless switch (Multiple wireless switches Optional). When it triggers the alarm will start and it sends notification to all other devices. Then any of the other users can identify which house has a panic situation by indicating it's in a display. To stop the alarm by entering the alarmed device to deactivate by using a rfid card (User ID),These all actions are logged using IOT .We can use any module as an transmitter or receiver .and they will not communicate frequently.by only communicate when a panic situation arrives so we can reduce Energy usage .Here used all components are in LOW energy Devices.

4. SPECIFICATIONS AND WORKING

Accommodating a wall or a wearable system which can link to the nearby 5 homes of the unaccompanied person's house with a get down the button or turn on the speaker which alarms the available houses, so that we can recuse the person or kid from any kind of danger or emergency. The advantage of the idea is that we can seek the help of our known people whom we can trust. When a person turns on the alarm, the people of other houses get the ring inside their houses and can understand from which house is coming from. So that they can help them effectively.

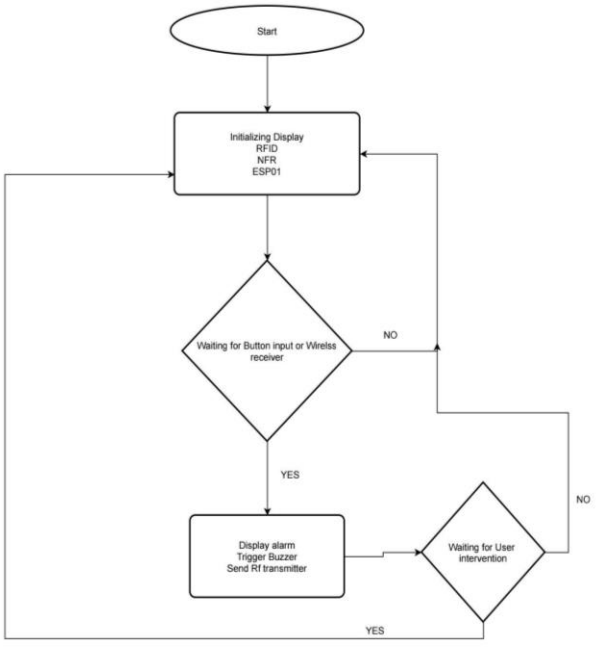

Fig. 2: Flow chart

According to the condition provided the Atmega 32P starts connected to the peripherals of the devices will initialize, and will make sure that all the components needed is assembled, If not it would reset and check again. In case it is a negative response the device starts with the saying no. At the ideal condition we get a "Home security" display after getting a triggering or manual triggering because of this it would generate an alarming and shows the details of the house that initialize the trigger for help. The person who goes to the rescue will need to show the RFID tag to the reader to stop the alarming system. After this the data will get uploaded in IOT through ablink. The system can we setup in house wall or used as a wearable outdoor device, in case if a person is in risk they can provide triggering through the wireless switch and let the neighbors know the details of this specific house is in need for emergency help. The alarming setup can be linked within the range of 1km. The alarming can be stopped only by the secure RFID tag by the neighbor to make sure that help is assured.

01. A personalized alarming system is used to provide necessary help as per the needs.
02. Whenever help is needed, the person can turn on the alarm with the help of a wireless switch, which is either placed at a specific position in the house or placed at the body of the person
03. When the person presses the switch, the trigger occurs and the alarm is produced and received to the nearby selected houses. Now through the LED display, the required details regarding the help can be seen.
04. Since the neighbors can see the details, they reach the spot immediately for help. After they reach the spot, they swipe their card on the RFID reader. When the card is swiped, the detail of the helper is sent to the other houses, linked with the system.
05. In order to stop the alarm, two helpers should swipe the cards on the RFID reader module. By this way the alarm can be stopped after the required help is done.

5. CONCLUSION

The provided system design can decrease the crime rates that are currently happening in our world to a limit. The security system provides alert to the neighborhood in order to rescue from the situation that they are facing at that moment. Through this way help is assured. The system can be set up in any of our rooms where we can easily access the alert. Since this system can attach houses within 1km it is great in working as more details of the house is shown. This system is developed for improving the security of people, especially women, children, disabled and elderly people at home. This system assures help and also helps to maintain a healthy neighborhood. In order to request for help in an emergency a wireless switch is provided, which with the help of the NRF24L wireless module passes the message to the nearby connected houses. The OLED displays provided in the system helps to identify the indigent or location of the needy and thus avoid the confusion or delay in providing help. The use of RFID cards helps to confirm the person is being saved or the problem is solved. The system is designed user friendly and it helps to make people feel safe at home. In future, this system can be modified through the application of some wearable devices and mobile apps so that it would provide a bigger impact.

6. FUTURE SCOPE

In future, the system can be used as a wearable and also used outside that can be controlled using a mobile application. This system has higher adaptation in future as this could make every house a bit safer. If the system gets implemented in every house, we can see huge depletions in crime rate charts. The system can be upgraded from wireless switch to voice recognition or some code recognition so the attacker could not recognize the alert.

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