VOICE BASED SECURITY SYSTEM WITH ELECTRONIC EYE

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***Abstract*—Voice is most prominent and primary mode of communication among of human being. Voice has potential of being unique and important mode of interaction with computer. This paper aims to identify a person through voice and card for bank locker security. A Voice recognition system is designed to identify an authorized person voice and Resistive card for unique id. Proposed work aims at providing two levels of security to user with respect to card and voice. For the result of testing the system, it successfully recognizes the specific user's voice and rejects other user voice. Using this method the accuracy of whole system is successfully maintained in recognizing the user's voice. And for further security purpose GSM sends a message to the user as authorized person or unauthorized person and wireless camera keep on monitoring as live video stream. After accessing voice and card of authorized person bank locker will be opened. If in case any of voice or card is not recognized, buzzer alerts an alarm.**

Keywords— Voice recognition module, Arduino, LCD, GSM, Buzzer, Resistive cards, DC motor

I. INTRODUCTION

We are living in a world where self-security and surrounding is out most important. Conventional security system like password, fingerprint, thumb-print, palm scanning, Iris scanning could be breached easily. By knowing one's password we can access system, and by force or by keeping one in unconscious state we can breach the remaining security system. So, the proposed security system allows us to address the protection of our document and offices/home with quality solution. The selection of voice as pass code is the best among all the techniques used for security. The reason is everyone has a unique voice. So the urgency for security is also crucial subject of concern.

The voice acknowledgment framework is the limit of a gadget or program to get and comprehend transcription, or to comprehend a talked guideline. At the point when this framework is utilized with a PC, simple flag must be changed over into advanced utilizing ADC. In a PC, a computerized information base, syllables and vocabulary of words and syllables are required to decipher the flag. The types of the discourse are put away on the hard drive and stacked into memory when the program is run. The put away structures are checked by the PC against the yield of the simple to advanced converter. A wide range of voice acknowledgment framework don't deliver precise yield. Since pooch's yelping, kids' shouting and uproarious outer sounds can create false info.

These sorts of voices can be perceived just by utilizing the voice acknowledgment framework in a tranquil room. There is additionally some issue with a few words which produces comparable sounds like here and hear. To conquer this issue, framework requires quicker processors and RAMs which are accessible in the PCs. Be that as it may, these framework are accessible in the market and furthermore the business pioneers of the voice acknowledgment frameworks.

II. RELATED WORK

The creator in paper [1] Presents modernized technique for examination corridor administration framework. To recognize understudy's specific exam corridor from whatever other lobby, when they swipe RFID card in a card slot reader. This encourages them to distinguish the floor or get headings to their viewpoint lobbies without delays.

In paper [2] creator actualized an advanced security framework which can conveyed in secured zone, where just approved individual can be entered. They proposed a security framework containing entry way locking framework, utilizing RFID which can enact, confirm, and approve the client and open the entry way progressively for secure access.

The creator in paper [3] utilized the RFID innovation potential outcomes to decrease the miss chances on streets. At whatever point the vehicle crosses the specific street territory,

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the information from vehicle tag is perused and in light of the area, a SMS will be sent to the proprietor. Vibration sensor is included for vehicle condition, Zone data is modified in dynamic tag and data is transmitted to RFID per user, it alerts driver about the zone.

In paper [4] creator utilized RFID card for prepaid charging of water and SMS to demonstrate accessible adjust utilizing GSM framework. Creator planned a Valve with the end goal that, it is electrically worked. A detecting framework creates an equal voltage identified with measure of water utilized by the buyer. In view of water utilized, the revived adjust decreases.

III. OBJECTIVE OF PROPOSED PROJECT

The primary point of this undertaking is to give high security for bank locker framework and as takes after

1. Designing voice recognition module, to recognize specific person's voice.
2. Detection of unique person's ID using card.
3. To display authorized when the controller receives both specific person's voice and card.
4. Send GSM alert to the owner about authorized access.
5. To activate Buzzer, if unauthorized card accessed.
6. Activating DC motor, only if authorized card and authorized voice matched.
7. Wireless camera for live video transmission.

IV. BLOCK DIAGRAM'

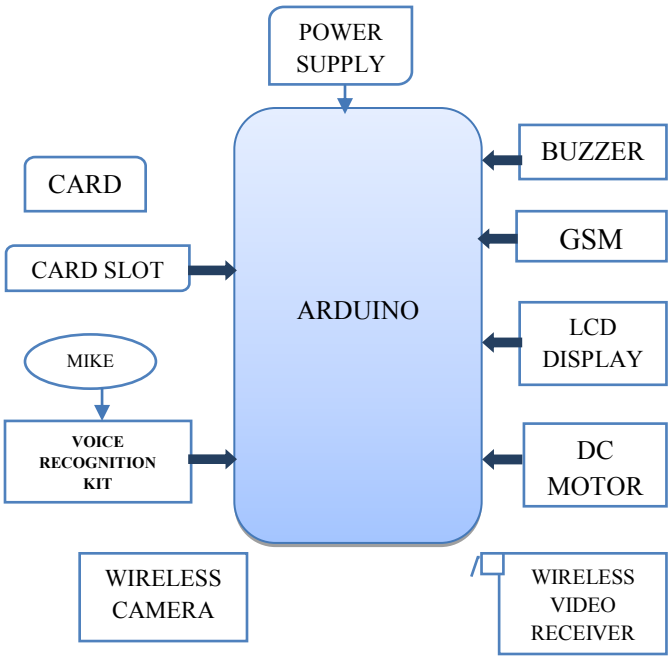

Figure 1: Block diagram of proposed model

Figure1 demonstrates the piece outline of our proposed work. It incorporates Resistive cards, Mike, Voice acknowledgment pack, GSM, LCD show, DC motor, Wireless camera, Power supply. Resistive cards are utilized for exceptional individual's id. In Voice acknowledgment pack is utilized for security reason to recognize the voice secret key talked from the approved individual and the framework opens when the voice is right.

This framework will be controlled by PIC microcontroller which can be customized with low level computing construct or c dialect. A mike is a sensor or transducer which is utilized to change over the sound into an electrical flag. GSM make an impression on the endorsed client. Ringer cautions a sound if there should be an occurrence of false condition. LCD show is a fluid precious stone show used to show particular charges. DC motor changes over electrical into mechanical power. Remote cameras are shut security TV that transmit video and sound signs to the remote recipient through a radio band.

FLOW CHART:

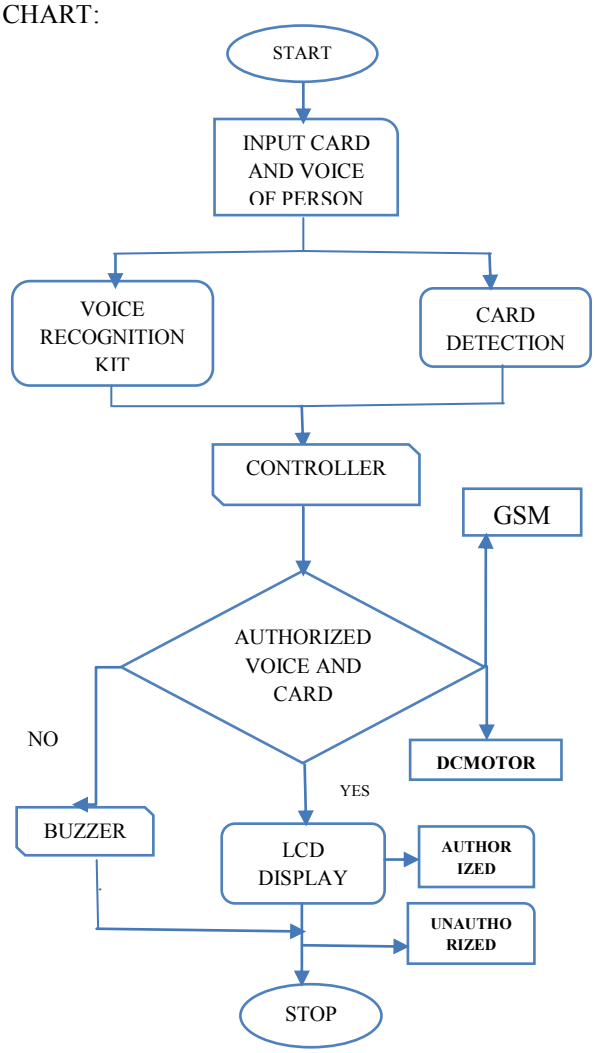

Figure 2: flow chart of proposed work

Figure 2 demonstrates the stream graph of our proposed work. To start with contributing voice and card of approve individual, if both voice and card hand-off switch initiates and send flag to controller. In the wake of getting sign of approved voice and card, DC engine turn, GSM makes an impression on concern individual approved and LCD show as authorized, if not bell will alarm by making sound and shows as unauthorized, GSM sends message as unauthorized.

V. METHODOLOGY

The system is designed to provide high security to bank locker. Each authorized person will be having unique identity card. The voice recognition kit is used to train the commands in training stage and generates the output for perspective commands in extraction stage. It has to generate respective output for respective voice commands. This security module will be having card detection system and voice module. If the controller receives authorized voice and authorized card then it will activate the DC motor to control the locker door. If unauthorized or unauthorized voice received then this module won't open the door and activates the alert. For each operation Arduino sends respective information, authorized or unauthorized to concern person using GSM and by using wireless camera live video can be seen.

VI. RESULTS AND DISCUSSION

The figure 4 shows a complete design model of proposed work setup and all the components used. Voice recognition model and card slot is connected to buffer, which in term activates driver and respective relay get activated. The Relay sends a signal to Arduino controller. If specific person's voice and card is authorized GSM informs to concern person and DC motor will unlock the door.

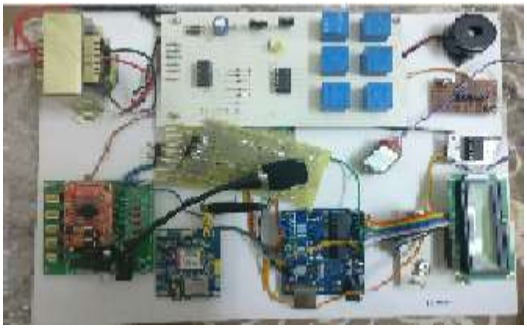

Figure 4: circuit connectivity

The result cases are observed in LCD screen as shown below figure 5

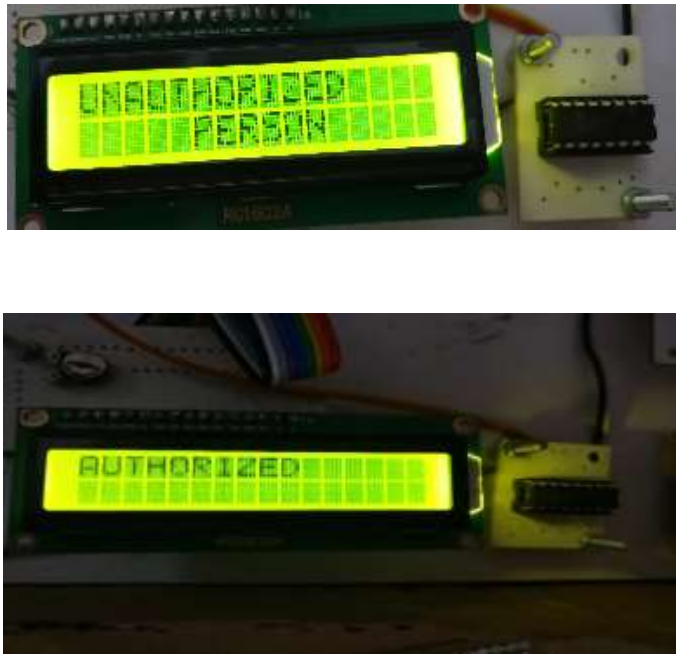

Figure 5: LCD display of authorized or unauthorized

Figure 6 shows the message sended by GSM to concern person authorized or unauthorized.

Figure 6: GSM sends message to concern person

VII. CONCLUSION

A security System for shielding to banks is fundamental because of the expansion of robberies. In our undertaking we proposed two level security utilizing voice acknowledgment and card. Both voice and card of particular individual's is coordinated then just DC engine opens the entryway. GSM makes an impression on concern individual about approved or unapproved access of card and voice. For assist security reason remote camera has been utilized and it continues catching live video, so that if there

should be an occurrence of approved access robbery individual can be effortlessly found. Along these lines by utilizing voice secret key for security we can keep the unapproved access to the framework. By executing this undertaking we can have better security with extra security offices accommodated the chamber.

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