SINGLE ATM CARD FOR MULTIPLE ACCESS SUCH AS BANKING PURPOSE, LICENSE AND AADHAAR,VOTER ID CARD

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***Abstract*- This project is designed in such a way that a single card is used for accessing the multiple accounts by using RFID technique to identify aadhaarcard, ration card, license, voter ID and banking purpose through PC. The system is user friendly and user convenient. Since biometric authentication is used in this system it makes the system highly secured. RFID reader is a circuit which generates 125KHZ magnetic signal. This magnetic signal is transmitted by the loop antenna connected along with this circuit which is used to read and write the information on the RFID card. Finger print sensor is the special type of biometric sensor which is used to identify the human finger print. Finger print sensor is interfaced with micro-controller through the ATMEGA processor. In this project we have used two modules namely admin module and user module. Admin module is responsible for entering the user details, user bank details, ATM card details. User module is the interactive module through which the user can log into the system and perform the transactions of the user's choice. Though the proposed system provides the user a level of higher convenience. The proposed system is a user friendly, efficient and convenient system.**

i. INTRODUCTION

The present scenario of the industrial needs shift towards automation. Two principle components of today's industrial automations are programmable

controllers and robots. In order to aid the tedious work and to serve the mankind, today there is a general tendency to develop an intelligent operation. The proposed system **"SINGLE ATM CARD FOR MULTIPLE ACCESS SUCH AS BANKING PURPOSE , LICENCE, PASSPORT AND ID CARD"** is designed and developed to accomplish the various tasks in an adverse environment of an industry. The intelligent is done by using ATMEGA micro-controller, Finger print sensor and RFID. This project is an own to the technical advancement. This prototype system can be applied effectively and efficiently in an expanded dimension to fit for the requirement of industrial, research and commercial applications. Micro-controller is the heart of the device which handles all the sub devices connected across it. We have used as micro-controller which has flash type reprogrammable memory. It has some peripheral devices to play this project perform. It also provides sufficient power to inbuilt peripheral devices and is not give individually to all devices. The peripheral devices also activates as low power operation mode. These are the advantages appeared here.

ii. LITERATURE SURVEY

In the late 1930's, Luther George Simjian started building an earlier and not-so-successful version of an ATM. He did register related patents. He initially came up with the idea of creating a "hole-in-the-wall machine." It would allow customers to make financial transactions, without entering the bank.

John Shepherd-Barron had an idea in the 1960's for a 24/7 cash dispenser. He was managing director of De La Rue Instruments. De La Rue today manufactures cash dispensers. There is a De La Rue cash dispenser in 1 out of every 5 ATM machines built. If you want to say that Shepherd-Barron invented the ATM, then the world's first ATM was installed outside North London. As a Development engineer with Smiths Industries Ltd, James Good fellow was given a project. It was to develop an automatic cash dispenser in 1965. Chubb Lock & Safe Co. was to provide the secure physical housing.

John D. White installed the first ATM at Rockville Center, LI for the then Chemical Bank in August 1973. His design was patented on May 9, 1973 for the Docutel Corporation and was filed on July 29, 1970. The machine was a "Credit Card Automatic

Currency Dispenser". Finally in 1967 that the first ATM that dispensed paper currency round the clock, was unveiled [1]-[4].

In the existing systems, now a day plenty of ATM Cards has to be carried while traveling. More than that we have to carry ration card, passport and license and voters card when we travel. Numerical password is used for accessing the account all the time. An automated teller machine (ATM) is an electronic device that allows a bank's customers to make cash withdrawals. The customer can then verify their identity by entering a pass code i.e., Personal Identification Number (PIN).

iii. EXISTING SYSTEM

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iv.PROPOSED SYSTEM

The project is designed in such a way that a single card is used for accessing the multiple accounts. The system is user friendly and user convenient. Biometric authentication is used in the system in order to increase the security. The user can perform various banking applications from the user's various accounts using the single ATM card and also can verify the license, passport and identity card. If the password is recognized incorrectly the alarm will be buzzled.

v. BLOCK DIAGRAM OF SINGLE ATM CARD FOR MULTIPLE ACCESS

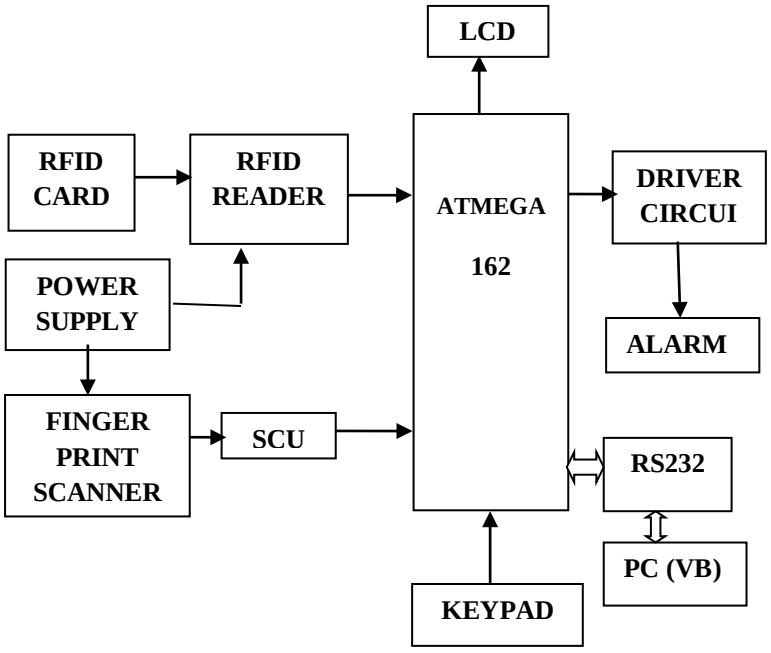


Fig: 1.Block diagram of single ATM card for multiple access

The block diagram consists of a RFID card, RFID reader, finger print scanner, signal conditioning unit, ATMEGA 162, RS232, pc, driver circuit, alarm, LCD and keypad.

vi. IMPLEMENTATION

The microcontroller ATMEGA162 is been connected with the RFID reader.The RFID reader is designed in such a way that it reads the entire information of the user.Inorder for the power the power supply is used to generate DC power to the circuit.At first the thumb is been scanned using finger print scanner where the signal conditioning unit is been inbuit in it which is used for users safe authentication then while the RFID card ie.ATM card,AADHAAR,LICENSE,VOTER ID is inserted the details of the user will be displayed. The user information is displayed in LCD screen and to type the password the block is attached with keypad.If the unknown user misuses the account or if the password is typed incorrect the alarm will be buzzled and theft is predicted.The block is connected with RF232 portable cable for interconnecting the device and the further details if the user is screen.

vii. ADVANTAGES

- Low power consumption
- Reduces the time
- Low cost to design the circuit, maintenance of the circuit is good
- By using this micro-controller IC we can create much more controlling action
- Reliability
- Compatibility
- The user can perform various banking applications from the user's various accounts using the single ATM card.
- The advantage of the proposed system is that if the password is recognised incorrectly the alarm will be buzzed.
- Instead of numerical password, we use biometric authentication for secured login.
- Easy to handle

viii. APPLICATION

- This Project is very useful in banking application.
- If the password is recognized incorrectly the alarm will be buzzled.
- This is highly secured since biometric authentication is used for login rather than numerical password.
- Time consumption.

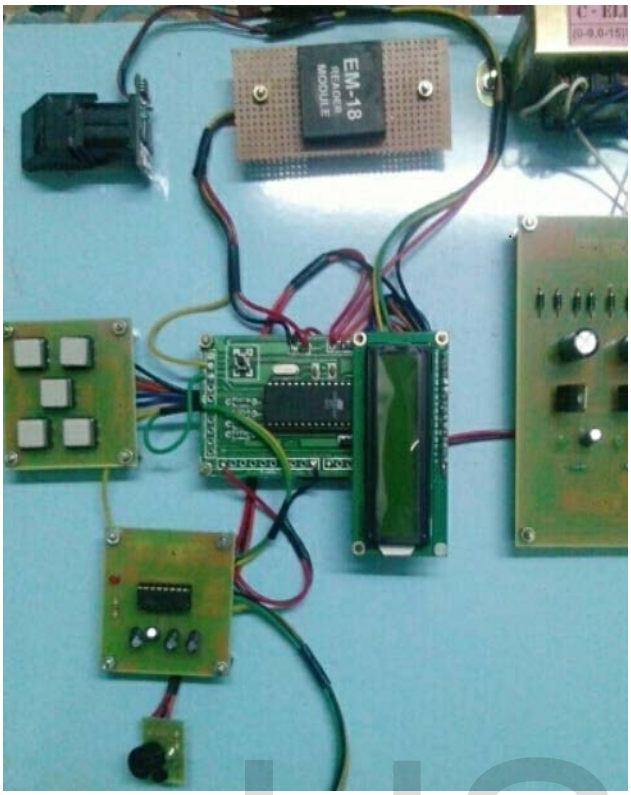
ix. CONCLUSION

The progress in science & technology is a non-stop process. New things and new technology are being invented. As the technology grows day by day, we can imagine about the future in which thing we may occupy every place. The proposed system based on ATMEGA microcontroller is found to be more compact, user friendly and less complex, which can readily be used in order to perform.

Several tedious and repetitive tasks. Though it is designed keeping in mind about the need for industry, it can extended for other purposes such as commercial & research applications. Due to the probability of high technology (ATMEGA microcontroller) used this"**SINGLE CARD FOR MULTIPLE PURPOSES**" is fully software controlled with less hardware circuit. The feature makes this system is the base for future systems. The principle of the development of science is that "nothing is impossible".

So we shall look forward to a bright & sophisticated world. Our system has many features in a single card where the user will be so beneficial than the existing system. Time can be consumed and is highly secured where unauthorized person cannot enter the account as biometric authentication is used. Our system is user friendly and user convenient.

x.VIEW OF SINGLE ATM CARD FOR MULTIPLE ACCESS



xi. FUTURE ENHANCEMENT

The important aspects of a project is itz future enhancement,here inour project we developed an idea which would make the system more efficient and more secure than the proposed one.In this project as future development we have included a biometric authentication than a numerical password.We are planning to add several features which will make this project into a masterpiece at securitizing the ATM card.The principle of the development of science is that "**nothing is impossible".**so we shall look fprward to a sophisticated world.

xii. REFERENCE

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