**DUAL SECURITY ACCESS BANKING SYSTEM BASED ON FINGER PRINT PASSWORD**

**AIM:**

The main aim of this project is to provide a security system to access the banking system, by taking finger prints as authorized identity.

**PURPOSE:**

The purpose of the project is to provide a secured and reliable environment by providing a unique identity to every user using the FINGER PRINT identification technology. In this project is to increase the security that customer use the ATM machine. Once user's bank card is lost and the password is stolen, the criminal will draw all cash in the shortest time, which will bring enormous financial losses to customer, so to rectify this problem we are implementing this project.

**Block Diagram:**

**MICRO CONTROLLER**

**(AT89S52)**

**POWER SUPPLY**

**MAX 232**

**LCD DISPLAY**

**EEPROM**

**FINGER PRINT MODULE**

**KEYPAD**

**BUZZER**

**Description:**

Nowadays, using the ATM (Automatic Teller Machine) which provides customers with the convenient banknote trading is very common. However, the financial crime case rises repeatedly in recent years; a lot of criminals tamper with the ATM terminal and steal user's credit card and password by illegal means. Once user's bank card is lost and the password is stolen, the criminal will draw all cash in the shortest time, which will bring enormous financial losses to customer. How to carry on the valid identity to the customer becomes the focus in current financial circle. Traditional ATM systems authenticate generally by using the credit card and the password, the method has some defects. Using credit card and password cannot verify the client's identity exactly. In recent years, the algorithm that the fingerprint recognition continuously updated, which has offered new verification means for us, the original password authentication method combined with the biometric identification technology verify the clients' identity better and achieve the purpose that use of ATM machines improve the safety effectively.

The embedded ATM client authentication system is based on fingerprint recognition which is designed after analyzed existed ATM system. The chip is used as the core of this embedded system which is associated with the technologies of fingerprint recognition and current high speed network communication. The primary functions are shown as follows:

• **Fingerprint recognition:** The masters' fingerprint information was used as the standards of identification. It must certify the feature of the human fingerprint before using ATM system.

• **Remote authentication:** System can compare current client's fingerprint information with remote fingerprint data server.

• **Buzzer alarming:** Once an exception happens, such as log in as the fake identity, the system will start the alarm to inform client and bank staff as soon as possible.

• **Two discriminate analysis methods**: Besides the fingerprint recognition, the mode of password

 Recognition can be also used for the system.

**TECHNOLOGY:**

In present days, computer becomes a main part of human beings for storing information. This information is up to some extent is a secured one. For example the details of employees and students etc... The authority person may only change the details. For this protection we are going to provide a PASSWORD for the PCs. This is secure up to some extent only because there may be a chance of revealing the password or some times the authorized person may forgot the password. So we have to provide security for PCs with a unique and simple to remember identification. One of such identification is the FINGER PRINT.

Fingerprint Scanner is a device for computer Security featuring superior performance, accuracy, durability based on unique NITGEN Fingerprint Biometric Technology. Fingerprint Scanner can be plugged into a computer separately with your mouse. Fingerprint Scanner is very safe and convenient device for security.

**SOFTWARE USED:**

1. Embedded C
2. Keil IDE
3. ISP

**HARDWARE USED:**

1. MICRO CONTROLLER(AT89S52)
2. LCD
3. POWER SUPPLY
4. FINGER PRINT MODULE
5. MAX 232
6. DOOR SYSTEM
7. KEYPAD

**RESULT:**

This project finds its place in places where there is a need to recognize the finger print of a person.