Design of secured ATM by wireless Password Transfer and shuffling keypad.

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Abstract—*Security is to grant access to a legal user, and to prevent the system from illegal or non authorized person. The so called process of Authentication has five factors in modern era. something You have (e.g., a hardware token/credit card), Something You are (e.g., a fingerprint, eye print), Something You know (e.g., a password/PIN code), In this project, we have developed such a technique which provides more security to a user in typing his password, in a public place, and in case that user is in critical position, of accessing his computer system. SHOULDER ATTACKS is one of the latest weapons used by hackers or adversaries in an organization to hack an account or to authenticate in a secure zone. In a shoulder attack a person is watching the user while he is typing the password and reads his fingers that what he has typed or makes a video of him typing the password and so comes to know that what the password is. So whenever we need to put PIN code, we will be using our mobile phone to type that pin code.*

Keywords—***ATM, LCD, OTP, PIN, GLCD, Shoulder Attack .***

I.   Introduction

Passwords play an important role in daily life in various computing applications like ATM machines, internet services, windows login, authentication in mobiles etc. The major aim for using passwords is to restrict unauthorized users to access the system. Passwords are necessary but, still they are not considered much safe to provide the security to the users because of many flaws in the conventional password systems. A large number of attacks on many systems are related to the passwords. This type of attack most probably occurs in the case of cash credit cards , While entering the password in mall or any shops the surrounding people may predict our password accidently or purposely. To avoid this and make the transaction safer this system gives more security to the ATM/Debit/Credit cards.

Present work related to the project topic:-

Current market survey:

If we look into STEPS of card payment:

 Step1: The merchant inserts your card at a PIN enabled POS terminal

  Step2: He enters the transaction amount

  Step3: The machine prompts for a PIN to be entered by you

  Step4: You enter your Credit Card ATM PIN in the machine

 Step5: On entering the correct PIN the transaction is confirmed and completed

  Step6: For terminals without PIN authentication support, your new Chip+PIN credit card shall continue to support the regular signature mode.

II.   Related Work

A.   *An integrated mobility system using real-time data for traffic simulation*
In that area we are combining mobile and sensors and create a wireless network. And with the help of that system monitoring of urban mobility can be done.

B.   *IoT enabled environmental monitoring system for smart cities*
That IoT based system is used to monitor air quality, humidity as well as $CO2$ from an environment**.** That system uses transmitter and receiver. The data is monitored and recorded at the receiver side with the help of GUI.

III.   Abbreviations and Acronyms

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Key Shuffling	It is an Algorithm that shuffles the letters or key which is used for entering the OTP at mobile Application.
DD	Software that enables computer hardware to communicate with a device. A device driver may also translate data and call other drivers to actually send data to a device. The software development board (SDB) uses a device driver for Windows NT to ensure communication between the host and the SDB..
M	A **microcontroller** is a small computer on a single integrated circuit. In modern terminology, it is similar to, but less sophisticated than, a system on a chip or SoC.
ADC	An **analog-to-digital converter** (**ADC**, **A/D**, or **A-to-D**) is a system that converts an analog signal, such as a sound picked up by a microphone or light entering a digital camera, into a digital signal. An ADC may also provide an isolated measurement such as an electronic device that converts an input analog voltage or current to a digital number proportional to the magnitude of the voltage or current.

IV.   Proposed Work
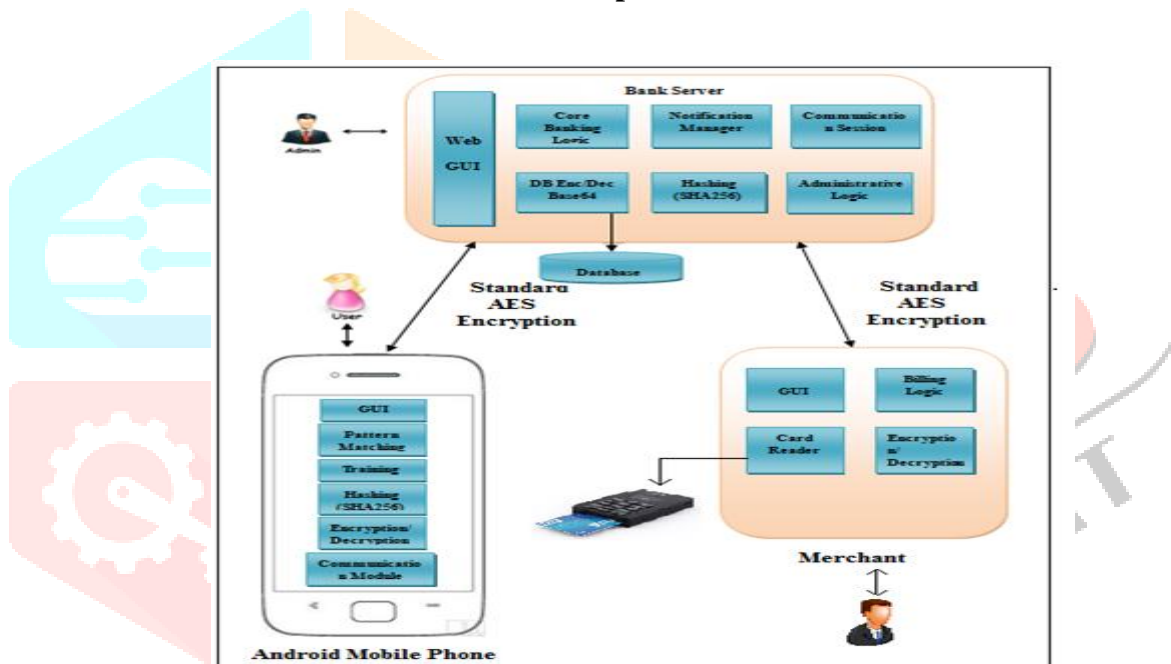
Fig 1. System Design

The merchant inserts your card at a PIN enabled POS terminal. He enters the transaction amount. Then the bank server will notify user on his android mobile phone to enter PIN number. User can now enter PIN using his/her mobile. Even user is free to provide number as YES/NO or any pattern which he can change on daily or monthly basis. After entering pin number bank server will do the authentication, check whether user is valid or not and also he has a sufficient balance to pay. After checking bank server will transfer the amount in merchant's account.

User first need to fill the form of bank server then only he is allowed to do such transaction. Bank server is private and only admin is able to handle the request. There are four options in bank server Add Card, View Card, Add Users and View Users. Bank Server is going to handle the entire requests.

V.   Conclusion

Our present project work relates to emebedded design for Design of secured ATM by Wirelesss Password Transfer And Shuffling Keypad. Which gives a more security to the ATM Card Transaction.

Acknowledgement

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