Card less Automatic Teller Machine (ATM) Biometric Security System Design Using Human Fingerprints

Madhuri More[1], Sudarshan Kankal[2], Akshaykumar Kharat[3], Rupali Adhau[4]
Department of Computer Engineering
[1, 2, 3] B.E Student,D. Y. Patil Institute of Engineering & Technology, Ambi,Talegaon Dabhade, Pune University, India
[4]Assistant Professor, D. Y. Patil Institute of Engineering & Technology, Ambi,Talegaon Dabhade, Pune University, India

Abstract-*The main objective of this system is to propose a system, which is used for ATM security applications. Bankers will collect fingerprints and customers' mobile numbers, while opening accounts, customers can access ATM machines. When the fingers should be placed on the fingerprint module to insert the customer ATM card, the user will automatically generate the code 4 times each time. The code will be sent by machine to the registered customer's registered mobile through a GSM modem connected to the micro controller. The user has to enter the code receive by the machine, after that user can proceed the further transaction.*

Keywords: Authentication, honey word, honey pot, password-cracking, attack

I. INTRODUCTION

The rapid development of banking technology has many advantages and disadvantages of banking activities and transactions, the arrival of Automatic Teller Machine (ATM) ATMs are electronic banking machines located at different locations and customers can make basic transactions without the help of the bank employee. With the help of ATM, the user can do many banking activities such as money transfers, cash withdrawal, credit card payments, various home-usage bills like electricity, and payment of phone bills [4].

The rapid development of banking technology, the way banking operations are dealt with has changed. A banking technique that has a positive and negative impact on banking activities and transactions is an automatic teller machine (ATM) arrival. It is a computerized machine designed to give customers cash without the need for human contact. Today, ATM users are increasing in number. At the ATM machine the card reader and keys are in the form of input devices and display screens, cash withdrawal machines, receipt printers, speakers, such as banking transactions such as banking transactions such as deposits, transfers, balance checks, mini statements, return Fast Cash, etc. ATMs are connected to a host processor, which is a common gateway through which various ATM networks become available to users. This host processor hosts various banks, independent service provider [1] the user's account information is stored on the magnetic strip located at the back of the ATM card. When we enter the card in the card reader, the card reader captures the account information and the information is used for the transaction purpose And we have to enter the PIN from the key pin is the 4 digit number given to all ATM card holders. The ATM card holder PIN is different from each other, the number is verified by the bank and allows the customers to access their account. The password is the identity, so that whenever you have the card and the correct password, you can open the account. Criminals have stolen the card and password, they can take more money than the account in the shortest period, causing huge financial loss to users [2].

II. MOTIVATION

. Card based ATM system Less secure ATM transactions. The purpose of avoiding Ford is to create "card less ATMs in the system". The "fingerprint" method is used for system forwarding. Using card less ATMs to reduce ATM crossing, fingerprint provides high protection.

III. LITERATURE SURVEY

1) Fingerprint recognition and ATM security using GSM:

In this section, it is necessary to improve security in ATM transactions. Due to the increase in the number of criminals and their work, the ATM has become unsafe. ATM system currently does not use more than one access card and pins for confirmation of identity. The personal identification number (PIN) not only provides competent protection, the fingerprint is the only one and cannot duplicate it with others. This letter connects pin verification and fingerprint detection technology for identification. From this letter, I talk about the OTP concept, which is used to recover passwords in

2) Biometrics and fingerprint payment techniques:

In this letter we conduct surveys on biometric payment systems. Instead of stress on the card, biometric payment systems are used for several types of payment systems, and they miss hard pins. This system is very safe and secure and is very comfortable and even relatively cheap,

economical, without even remembering any PIN like credit card payment system, wireless system and mobile system, such as any PIN or previous system. And this is more beneficial than others, so the problem is that one person has to take several cards and remember the password and always by Metric payment must try to save the system must be protected. Adoption of a biometric payment system will reduce the cost of biometric readers and thus it would be more suitable for small business owners.

3) Extended Encryption Standards:

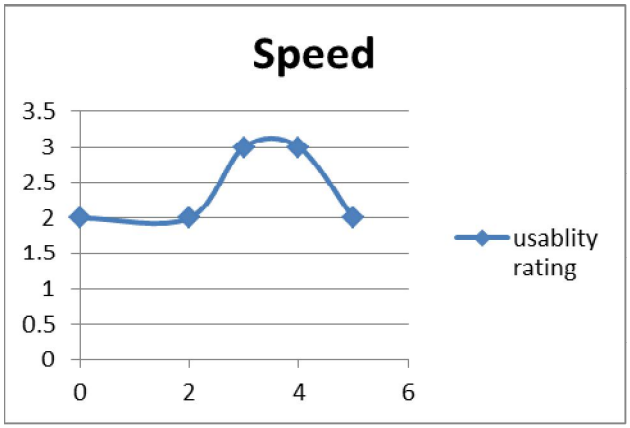
In this paper, we conduct surveys on Residential Algorithm, which use a symmetric block crypt, which can process 128 bit data block using the sole key with the size of 128 bits, 192 and 256 bits. Rijndael was designed to handle additional block sizes and key lengths; Although they have not been accepted in this standard, during the remainder of this standard, the algorithm specified in it will be called "AES algorithm". The algorithm also used with the three different key lengths mentioned above, and therefore these different "taste" as "AES-128", "AES-192", and "AES-256"

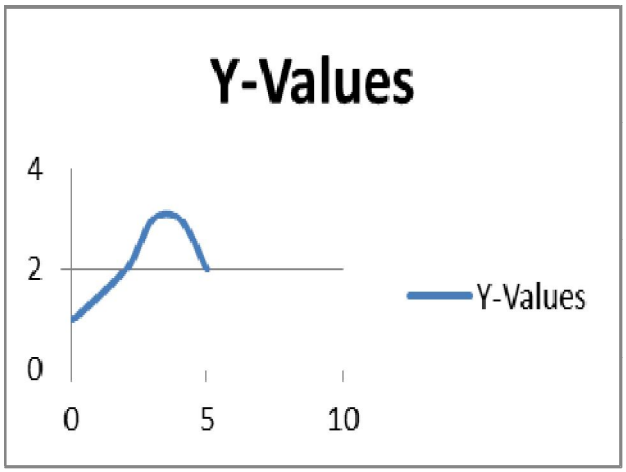
4) Automatic teller machine (ATM) operation facilities and uses in Ghana:

In his work, the authors believe that the packages of the automated teller machines (ATMs) of banks in Ghana are running very long without the full search of all the necessary functions, and it is public and it is demanding for others Decision makers about the impact of ATM operations, it leads to the author's research interests to evaluate the operating facilities of ATMs, and for customers, "use of ATMs Coke modeling of ATMs used in the study was used to determine a protein model was used to determine the factors that affect the use of the ATM facilities. Use collected data from 160 clients. Apart from this, the impact of high academic achievement, the number of ATMs per bank, facility and security features, efficiency and impact of low transaction fees affecting the use of ATM services have great impact on the effect.

Table 1: Performance comparison

Parameter	Paper1	Paper2	Paper3	Paper4	Paper5
Security	1	3	2	2	4
Speed	2	2	3	2	3
Efficiency	1	3	1	3	2
Performs	3	4	2	2	4





IV. ACKNOWLEDGMENT

The authors would like to thank publishers, researchers for providing their resources and we are also thankful for their important guidance to the teachers. We would like to thank the General Manager for providing the necessary infrastructure support. Finally, we would like to thank friends and family members.

V. CONCLUSION

The automated teller machine has become a mature technology that provides financial services. Therefore, making the process more secure and reliable is very important. Thus, the use of fingerprint recognition and implementation of ATM security by using GSM modem has benefitted from the stability and reliability of fingerprint characteristics. In addition, the system also includes the original verification method which was importing the customer's password, which is sent to the customer. When this system is fully deployed, then the rate of fraud activities will definitely be reduced on ATM machines, such as only the registered owner of the card and nominee, access to the bank account, and the nominated user will also make the transaction so that it is more Be

comfortable in emergency situations Thus the system becomes more secure, reliable and easy to use.

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