

# ANTI-FRAUD ATM SECURITY SYSTEM

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**Abstract-**(ATM)Automated Teller Machine is an electronic automation device that facilitate customers of financial base to perform trade agreement, such as cash withdrawals, deposits, transfer funds, or obtaining account information, at any time and without the need for direct communication with bank staff.[1] The security based in the current system is pin generate & message passing. Once the pin is entered message is send to account holder after the cash withdrawal. Is this much security ATM sufficient for higher level of ATM frauds. Today the society is facing due to these insecurities we plan a propose system for Anti-fraud ATM security.

**Keyword:** withdrawal, check balance, transaction, security.

## 1. INTRODUCTION

ATM has become one of the most important prerequisites in day to day life. It provides its users with convenience of using their bank account for financial transactions anywhere round the clock. Security has become a major aspect and concern as the installations of more numbers of ATM's along the time has drastically increased. A Personal Identification Number (PIN) or Password is one important aspect of ATM security System. Pin is commonly used to secure and protect the financial information of a customer from unauthorized access. even though in spite of Pin Protection the security arrangements are not good enough to sustain and protect the facility in case of theft of ATM's and robbery. The unique idea of designing and implementation of Anti-Fraud ATM Security System has been inspired by the need of high tech security required in banking system looking at the current threats of local thefts and burglaries.[2] The Process of Anti-Fraud ATM security system is as follows:

1. If a card is swiped in the Machine then on screen several Options come. Wiz (Withdrawal/Balance Check/Withdrawal/Pin Change/Etc.)

2. After choosing option "Withdrawal" a second Page comes up asking for Pin/Password.

3. Once the Password/Pin is entered a message will be sent to the actual registered user on his Mobile for continuation or disconnection of current transaction happening at the ATM.

4. Genuine user will go for yes option and the Transaction will be completed successfully with Optimum Security.

In accordance with the above-mentioned process a customer will be able to successfully operate his financial transactions at ATM's with minimum or no risk at all. This process will be a remarkable step towards reducing the Theft and Fraud Activities.

## 2. Technology Used

### 2.1. Net Programming Language:

The .Net framework is a s/w development form developed by Microsoft for running and service that it uses. The framework was creating an application, which would run on the Windows Platform. The first adaptation of the .Net framework was released in the year 2002. The .Net framework can create both - Form-based and Web-based applications. Web services can be used to developed using .Net framework. It also supports various programming languages such as Visual Basic etc. So developers choose and select the language to develop the required application.

### 2.2 C# Programming Language:

C# is all-round, modern and object-oriented programming language pronounced as "C Sharp". It was established by Microsoft led affiliated Anders Hejlsberg and his organization among the .NET enterprise and was authorize by the (ECMA) and International Standards Organization (ISO). C# is among the languages for Common Language framework. C# is a lot similar to Java semantic and is easy for users who have knowledge of C, C++ or Java. C# is a combination of C and C++, it is a Microsoft programming language expand to compete with Sun's Java language. C# is an object-oriented programming language used with XML-based Web services on the .NET belvedere and architecture for improving capacity in the improvement of Web applications.

### 2.3 Firebase:

Firebase is a automation that allows you to create web applications without server-side programming, making improvement faster and easier. It assists Web, iOS, OS X and Android clients. Application that use firebase can use and

control data without thinking about how data is stored and accompany across different instances of the application in real-time. Working with Firebase from a developer's aspect is a wonderful benefit, as they are the basis technology of development. Firebase gives you benefit like analytics, databases, messaging and crash briefing so you can move quickly and core on your users.

**3. Problem Definition:**

Today, the banks are having advance guard in order to hold its customers as well as to attract more new customers. Providing ATM is one of the scientific facilities offered by the banks to its respected customers, as the user of ATM is increasing day by day. It is extensive to make a study of the customer satisfaction level with respect to various appearance of ATM services offered to.

**4. Aim and Objective:**

- You can disengage cash at any time, day or night.
- ATMs offer the acceptable of multiple locations.
- Your ATM card is insurance by a PIN, keeping your money safe.
- You don't need to fill out disengage and deposit slips as is required at the bank.
- ATMs are quick than going to the bank—no long lines.

**5. Proposed System:**

The system is nothing but the advancement of the current working ATM system. There is no change in the approach/working of the current system, it only consists of the incrimination of module of this proposed system. These modules are as follows.

**Module 1:** Registration -This is the first step of our proposed system; the module consists of registration of the users along with the original account holder who is already registered so that this user can get access of your ATM account.

**Module 2:** PIN controller - This module consist of the process after the card is swiped and the pin is entered .it keep the transaction on hold before showing the further option to the user until it gets conformation from the account holder.

**Module 3:** Message generation - As the described in the previous module that the transaction will be on hold. this module will mean while send a message to the users registered mobile no. asking for conformation of giving the access. if he allows it will continue else it will be cancelled.

**Module 4:** Camera Activation - This module consists of activating the service of the camera which is already placed in the current machine as well. In this the camera will capture the user and image will be verified. If user is verified the

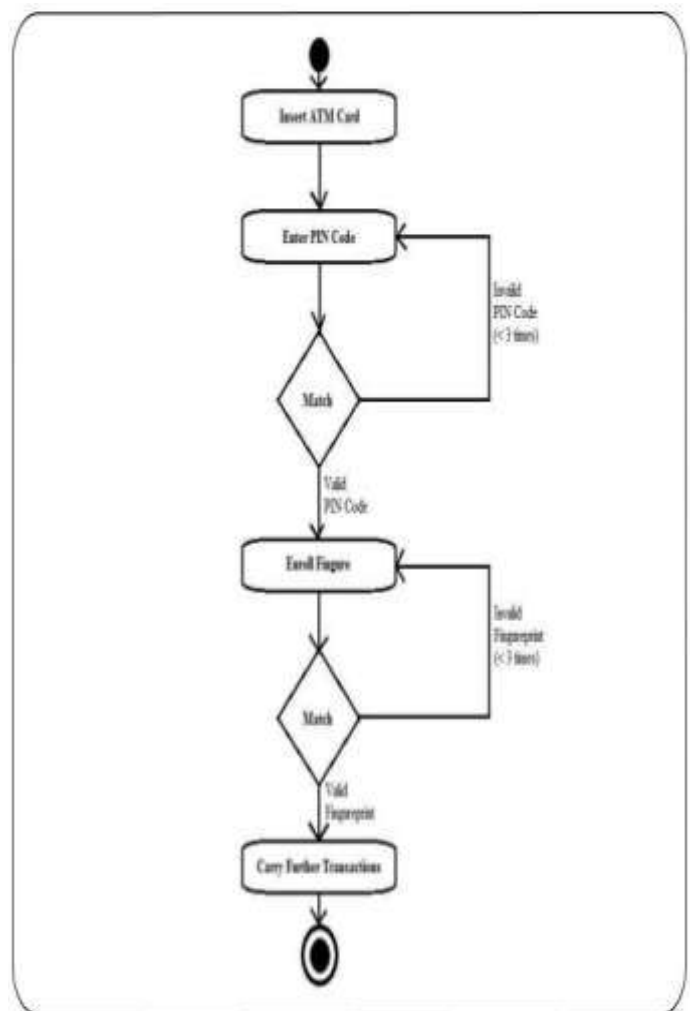
transaction will be continue if user is not verified the image of the user will be sent to the registered no.

**Module 5:** Location Tracing - This module is the contamination of the previous module where if the image is not verified the image of the user along with the location of the ATM will save in system and also sent to the two registered mobile no.

**Module 6:** Permitting Access - After getting the image and ATM location if the user allows from any one of registered mobile no. the transaction will be successfully otherwise transaction.

**6. Implementation Details:**

**6.1 Diagrams**



**Fig: Flow of Authentication for ATM System**

## 7. Conclusion:

The approval of the ATM as an electronic banking channel has positively brunt the banking industry worldwide because it is very effective and comfortable for bank customers. The approach of ATM fraud has however been a plague for many banks all over the world and many banks now aim to abate fraud costs to the bank. The proposed system can provide a practical and workable solution that addresses the requirements of the regulatory assurance of the banks. The borrow technology of the proposed system is also cheaper to expand than the authentication technique because it utilizes the components of the existing system. In general, it will positively impact the banking industry and the society by lower the rising levels of crimes that are associated with ATM transactions. The proposed second level corroborate mechanism for ATMs will increase customer satisfaction and also give customers the peace of mind they need considering the high level of security applied to their accounts. Finally, it will limit the financial risks of customers given that they most times take the authority for financial loss via ATM rather than being permit to pass on the risk to the banks.

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