# SMART ATM SURVEILLANCE SYSTEM USING WIRELESS TECHNOLOGY WITH SECURED AUTHENTICATION

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**Abstract –** *An automated teller machine play an vital role in day to day life.The project is the ATM surveillance system based on wireless technology.Its having the high security level for both ATM machine as well as the money transaction. The proposed system consists of various sensors,by using that various suspicious activities(theft ,fraud raids) were detected, and by using GSM the necessary action will be taken. The proposed system having finger print scanner which is the additional security for money transaction. The proposed system thus heightens the security of ATM's against imminent attacks effectively.*

*Key Words***:** Automated teller machine(ATM), global system for mobile communication(GSM), sensors, fraud raids, high security , money transaction security, ATM security

## 1. INTRODUCTION

Due to their readily available cash the ATM have become area of target.and also ATM attacks are simultaneously rising. this is a serious problem for the people who are all regularly using the ATM. so that the system to be developed and confidence level of the customers should be improved. Currently there are CCTV camera for the security, but it is not useful when the thief wearing any mask, and also the captured images not showing the clear image. the existing money transaction security having only the pin number. suppose the pin number will be misuse, for that only we are going for proposed system.

### 1.1 ATM ATTACKS

Due to an attractive area the attacks will be more and different in ATM center. we cannot describe all the types of attacks. mainly ,there are three types of attacks, they are

- ➢ PHYSICAL ATTACK- By using tools & equipment & bomb
- ➢ ATM ATTACK : Bank card information may be theft
- ➢ SOFTWARE ATTACK: software information will be theft
- ➢ PIN NUMBER MISUSE: misusage  of the user

### 1.2 PROACTIVE MEASURES

The proposed system employs proactive measures to counteract the burglary attacks, here there are 2 sensors which is used to sense the suspicious activities (fraud raids &physical attack),and GSM which is used to sending the information to near by police station, and finger print scanner for the additional security in the money transaction process.

## 2. PROPOSED SYSTEM

In the ATM security ,The sensors sensing the activities(vibration & variation in temperature) after that by using the motor the shutter of the ATM will be closed, when the shutter closed on same time the gas (anesthia) will be spread  inside the room ,so that the thief going to unconscious  state. By using  GSM, the information will be sending to near by police station.
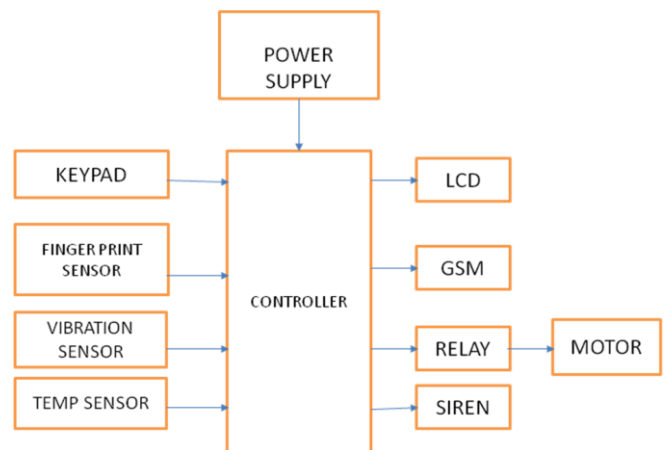


**Fig 1: Block diagram**

In the money transaction security ,once you enter the pin ,the OTP will be generated through GSM to your mobile number. After seeing that, you enter the OTP on the screen. After that you place the finger on the screen, your finger print matched with the default finger print .if it is matched the money will be transaction ,otherwise siren will be on.
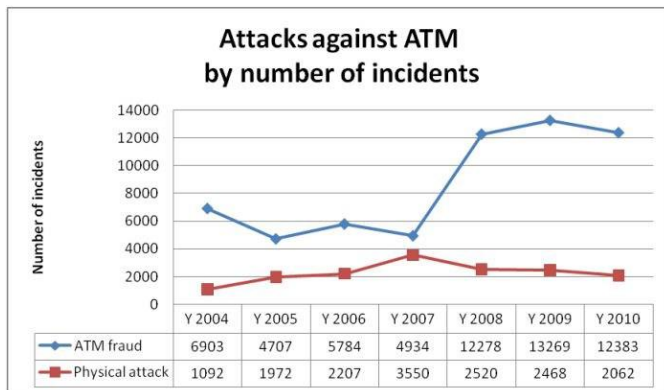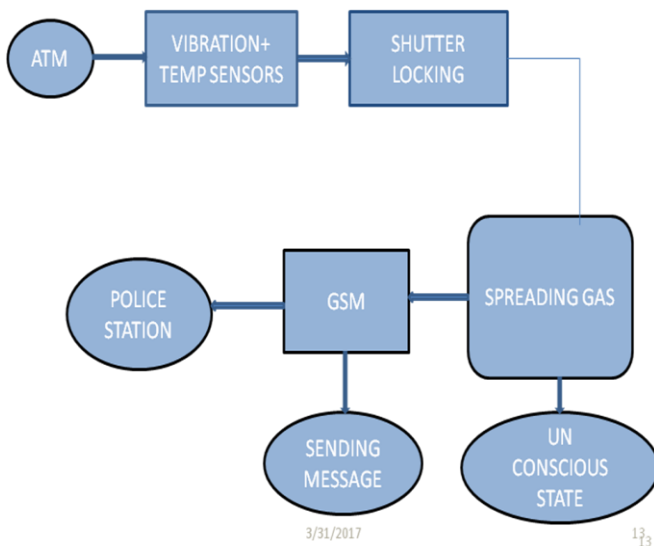
**Fig 2 : Attacks against ATM**
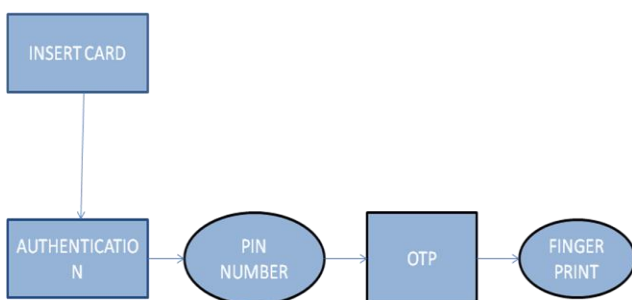


**Fig -3: ATM security**



**Fig-4: Money Transaction Security**



**Fig-5: Hardware Module**

## 3. CONCLUSIONS

The proposed system is fully based on embedded technology, so that the system should be realizable and easy to use and it should be a stable system. it utilizes the latest technology like sensors & GSM. and improves safety measures from lot of hardships involved in ATM attacks.

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