

CHAPTER 1

PREAMBLE

An Automated Teller Machine or Automatic Teller Machine is an electronic telecommunications device that enables the customers of the financial institution to perform financial transactions without the need of a human cashier, clerk or bank teller, thus these smart machines have become the inevitable part of our business lives. But burglary at ATM machines remains a major nuisance and a challenge. On the national scale, Karnataka stands in the third place. While Jammu and Kashmir and Rajasthan top the list with 17 ATM robberies. Stating that 139 robberies were reported across the country, the finance ministry maintained that it has issued directives to all banks to enhance security around ATMs. The center has also directed to shut night operations of ATMs that are located in the isolated places and those that are not manned by security personals.

The Idea of Design and Implementation of Security Based ATM theft protector project is born with the observation in our real life incidents happening around us. This project deals with protection of ATM from robbery. This system uses Arduino based embedded system to process real time data collected by the vibration sensor. Once the robbery is detected, the Siren will start alerting the public. The door of the ATM will automatically shut close.

Solenoid valve is used to leak the gas (Chloroform) inside the ATM chamber to bring the thief into unconscious stage once he inhales the dose defined. GSM Modem is used to send message to the nearby police station, corresponding bank manager and Security Officers. Once the bank officials or Police come, they can disable the system by entering a password then open the ATM door and catch hold of the Thief.

1.1 PROBLEM FORMULATION

Problem Formulation for ATM theft, it appears as recession's hottest crime. There were many instances of teller machine robberies in India alone. The thieves have snatched or attempted to take off with ATMs 28 times in the past year. That's up from 2 cases of the crime in the year before. In Atlanta, which has also seen a spike in ATM crime, as many as 35 machines have disappeared this year as shown in Fig 1.1. As this is very big problem of safety for government money. So, we have decided to improve our present security system. In this security system GSM is used to protect ATM.