**TITLE**

**Smart ATM Surveillance System**

Automated Teller Machine (ATM) surveillance system which is a smart system based on embedded technology and incorporates various sensors to continuously monitoring whether suspicious activities like physical attack take place and also monitoring its surrounding components like CCTV camera, AC etc;

**SYSTEM STUDY**

The attacks on ATM’s are steadily rising and this is a serious problem for law enforcement and banking sectors. Currently to provide protection to the ATM and to the customers using it, there are CCTV security cameras and emergency sirens. Other measures that are being researched includes a system that implements a low cost standalone embedded webserver, Machine to Machine (M2M) and RFID to implement an anti-theft system.

The proposed system employs proactive measures to counteract the burglary attempt, here the sensors of the system act as first line of defence and detects the break-in and instigates the protective actions which will deter the burglars from continuing with their attack, thereby successfully thwarting the attack and 24\*7 for monitoring the surrounding components.

**FEASIBILITY STUDY**

The initial investigation points to be question whether the project is feasible. The feasibility study concerns with the considerations made to verify whether the system fit to be developed in all terms. Once the idea to develop the question that rises first will pertain to be the feasibility aspects. Feasibility study is a test of proposed system regarding its efficiency, its impact, ability to meet the need of bank security and whether it provide confidence to customers when using the ATM .

Thus, when a new project is proposed, it normally goes through a feasibility study before it is approved for development. A feasibility study is conducted to select the best system that meets the system performance requirements. This entitles an identification description, an evaluation of candidate system and the selection of the best system.

During system analysis, a feasibility study of the proposed system was carried out to see whether it was beneficial to the organization. Three key considerations that are involved in the feasibility study. They are,

* Technical Feasibility
* Economic Feasibility
* Behavior Feasibility

**TECHNICAL FEASIBILITY**

Technical Feasibility centers on the existing computer system hardware, software, etc. and to some extent how it can support the proposed addition. This involves financial considerations to accommodate technical enhancements. Technical support is also a reason for the success of the project. The techniques needed for the system should be available and it must be reasonable to use. Technical Feasibility is mainly concerned with the study of function, performance, and constraints that may affect the ability to achieve the system. By conducting an efficient technical feasibility, we need to ensure that the project works to solve the existing problem area.

Since this project is designed with embedded C as programming language with microcontroller328, vibrating sensors, visual blocking detection sensors, temperature and humidity sensors, power supply monitoring sensors etc.: These sensors act as first line of defense for protecting the ATM machine. It is more efficient than existing system and has 24\*7 monitoring, provide alert to the authorities whenever needed. Hence this project has good technical feasibility.

**ECONOMIC FEASIBILITY**

The designed system meets the requirement to provide security to the ATM with sensors of minimal cost within the affordable price by encouraging more of proposed system. Economic feasibility is concerned with comparing the development cost with the income/benefit derived from the developed system.

Economic Feasibility is mainly concerned with the cost incurred in the implementation of the proposed system. Since this project is developed using embedded C with various sensors like vibrating, temperature, humidity, force sensors etc.: is more commonly available and even the cost involved in the installation process is not high.

Similarly, it is not necessary to recruit persons for operating this system because existing authorities can easily operate it. Even if we want to train the persons in these areas the cost involved in training is also very less. Hence this project has good economic feasibility.

The system once developed must be used efficiently. Otherwise there is no meaning for developing the system. For this a careful study of the existing system and its drawbacks are needed. The authorities should be able to distinguish the existing one and Proposed one, so that one must be able to appreciate the characteristics of the proposed System, the existing system is not highly reliable. The proposed system is efficient, reliable and also quickly responding.

**BEHAVIOUR FEASIBILITY**

Proposed projects are beneficial only if the system that will meet requirement of the ATM security and monitoring. An estimate should be made of how strong reaction when this system can prevent the rising amount of ATM attack likely to have towards the development of a computerized monitoring of ATM system.

In this project the bank authority has full control over the system. Here authority can monitor the ATM for 24\*7. Each components of the ATM provide individual monitoring.

**SYSTEM REQUIREMENTS AND SPECIFICATIONS**

**HARDWARE CONFIGURATIONS**

These are the hardware configurations used in this project,

* + - * + Processor: Intel core
        + RAM: 4 GB
        + 328 microcontrollers
        + Vibrating sensor
        + Temperature sensor
        + Humidity sensor
        + Power supply sensor
        + GSM module
        + Visual blocking sensors

**SOFTWARE CONFIGURATIONS**

These are the software configurations used in this project,

* + - * Operating System: Windows 7
      * Front End: Embedded C