



A NOVEL ATM TECHNOLOGY

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ABSTRACT

We all know that ATM is a machine for withdrawal of money, and we use debit card for this purpose. And we find it quite unsafe to withdraw the money during night time, and we all know that most of the times the ATM bank is being robbed by many thieves at night time, so my method is use to prevent this, and according to my idea we fix a robotic machine 50m away from the ATM machine.

Keywords: *ATM, Money Withdrawal, Safety.*

I. INTRODUCTION

With the advent of LATEST technologies in today's world, there has been an increased need for more compact ATM. People don't want to carry money physically. These requirements are fulfilled by ATM machines placed in required places. This paper describes a novel technology which can be used in ATM

II. PROPOSED DESIGN

The characteristics of the designed robot are as follows:

It scans the iris pattern of a particular person who enters the ATM. And this scanned iris pattern is being compared with the police station database which contains all the criminal history of criminal, and in this case if the iris pattern scanned by my robot matches with the iris pattern recorded in the police station investigation system, then the police cops can rush into the area immediately without any time delay, and the thief can be caught in no time.

The designed robot also tracks the SIM card information, and all the call details, which he receives. The Block diagram of the proposed novel robot is shown in Figure 1.

The designed robot also consists of a timer which records the time taken by the person to withdraw the money entering the ATM and it also calculates the number of persons entering the ATM. The Scanning Robot is shown in Figure 2. If a person spends more than five minutes in the ATM the yellow buzzer in the control room gets activated which gives the first warning and the video footage near the ATM will be displayed on the LED screen, and if the person spends more than 10 minutes, then the police cop will have take the action immediately. This could only be applicable only during the night times because during the day time there are many people, who draw money from the ATM, and one may also spend more than 10 minutes, and if the person who drew money is innocent then it could cause a blunder. But during the night time the probability of robbery is more, and we all know that the probability that the people would withdraw money from the ATM will be less. So the above method could be used assuming that most of the robbery takes place at night.

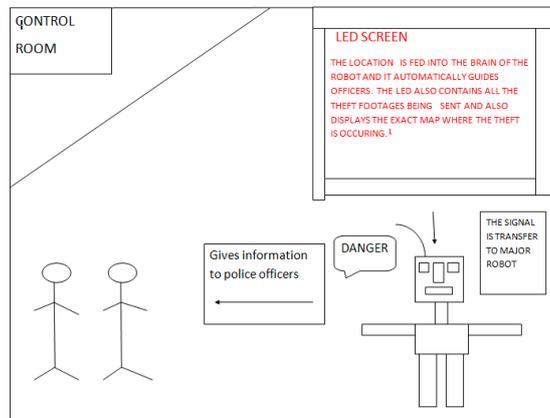


Fig. 1. Block Diagram of the Proposed Novel ROBOT.

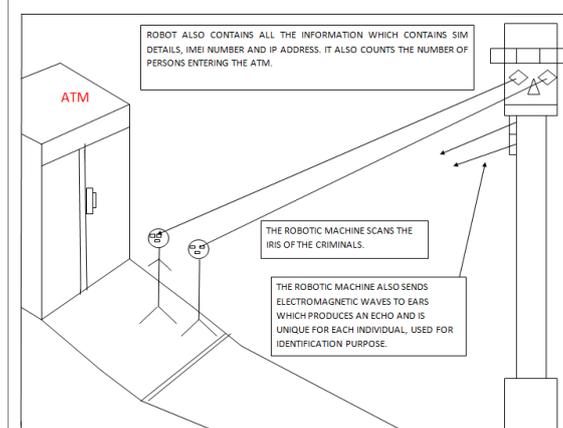


Fig. 2. Scanning of the Proposed Novel ROBOT

And another feature of the designed robot is to identify the person by the means of ear identification. The main advantage of this method over iris pattern identification and finger print method is that this cannot be produced in a duplicate, let us take an example that, duplicate finger prints and duplicate iris pattern can be produced but duplicate ear print cannot be produced. This is one of the Japanese inventions which I would like to bring it to INDIA. It works on the following principle discussed in the Paper.

III. WORKING PRINCIPLE

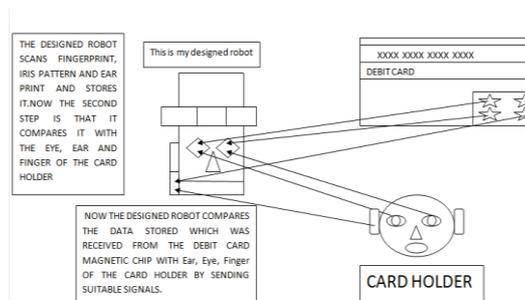


Fig. 3. Block Diagram of the Proposed Ear and Eye Identification System.

Figure 3 shows the block diagram of the proposed Ear and Eye Identification System. I would just like to talk more about this ear print technique of identification – One of the advantages is ear print is more reliable, it is accurate.

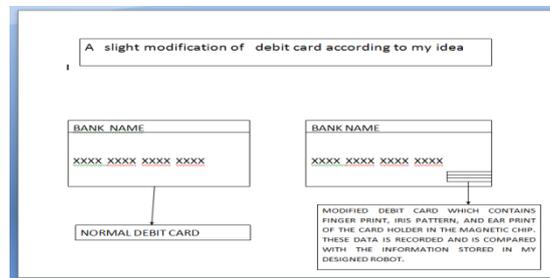


Fig. 4. Modified ATM card with all the details.

Other advantage of the ear print technique is that the ear of a person can be captured using the cameras and that could be compared with the criminal investigation records. This is only I know about ear print technique. I want this technology to be brought to all the ATMs so that the robbery in the ATM could be substantially reduced and I believe that this idea of mine would really be beneficial to the public and people could withdraw money without any fear. And when this idea is adopted, I believe that people at night time could be able to withdraw money in case of emergency such as during the case in hospitals, etc.

And I would also like to tell some more points about my modified debit card which carries a lot of information in the magnetic strip which is inter related with the designed robot.

Consider the following diagram to be the brain of the designed robot which is related with the modified debit card. The modified debit card is shown in Figure 4 which has all details needed for further processing.

IV. CONCLUSION

This research work provides an insight to the various types of ATM robberies and discusses various novel technologies to prevent money theft in ATM. From the paper we conclude that the proposed novel techniques enhance the safety and security of the ATM to a great extent.

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ABOUT THE AUTHORS



DR. M. LEVY is currently working as Professor in the Department of Electronics and Communication Engineering at Sambhram Institute of Technology, Bengaluru. He is also the P.G Coordinator and Research Coordinator in ECE Department. He has obtained his Ph. D Degree in the thesis entitled “Investigations on fractal concepts in smart antennas, ultra-wide band antennas and optical antennas” jointly from University of Saskatchewan, Saskatoon Canada and National Institute of Technology, Tiruchirappalli, Tamil Nadu, India. Entering as Topper in Government Engineering College, Pondicherry affiliated to Pondicherry University, he has done Bachelor of Technology in Electronics and Communication Engineering. He studied Masters of Technology in Electronics and Communication Engineering as a top GATE candidate in the Pondicherry Engineering College, Government Undertaken, Pondicherry affiliated to Pondicherry University and completed as University Top Ranker and Gold Medalist. He has also won the Best Student Award and Chief Ministers Gold Medal Prize. He is also the Recipient of Best Project Award for his M.Tech Project. He has attended several Workshops, Seminars, Faculty Development Programs, National and International Conferences, Specialized training Programs and presented several technical papers and also delivered special talks at various colleges, special gatherings and Institution of Engineers, India (IEI). He was a participant in the President meeting held at Anna university, Chennai and attended the special lecture delivered by Dr.A.P.J.AbdhulKalam, the then President of India in the year July 2003. He has Keen interest for Research in the Field of Smart Antennas for Wireless Communications, optical antennas and Ultra-Wide Band Antennas applying fractal concepts and working in the Areas of Applications and developing new algorithms in Smart Antennas Technology for Mobile Communications, designed and developed novel UWB antennas and done numerical analysis for the designed antennas. He has around 25 national and international conference papers published 15 international journal research papers in reputed journals and four journal papers are under preparation. He has won the MHRD scholarship and Canadian common wealth scholarship and is having International research experience at Canada from January 2012 to July 2012 at the University of Saskatchewan, Saskatoon, Canada under the leadership of Dr. Anh Dinh, Professor, Dept. of Computer and Electrical Engineering. He is having total 20 years of teaching experience and taught many subjects and guided around 20 B.Tech and M. Tech projects. He has applied to various organisations for funded projects which is under review.

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