

Research Proposal

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1. Proposed Research Topic

The Feasibility of applying facial recognition system in the ATMs of Bahrain

2. Background

Facial recognition system is a computer application, used in the ATMs, which allows an automatic identification or verification of a person by using a video source. Matthew Humphries, news writer and senior editor for Greek.com wrote about the first official introduction of this technology in China in 2015. Although this technology has not widely spread all over the world, but some of the developed countries like Australia, Japan and UK have started introducing this technology in some ATMs of the country. In contrast, Bahrain has not presented this technology yet and uses the traditional ATM system where the user inserts the card and enters his/her PIN no and withdraws the amount.

3. Research Question

How likely is it to introduce Facial recognition system in the ATMs of Bahrain? What are its requirements? How can this technology work successfully?

4. Goals and Objectives

The goal of this research is to study the feasibility of and the requirements for providing a Facial recognition system in the ATMs of Bahrain.

Objectives

- To survey IT students' view on the security and implementation of Facial recognition system in the ATMs.
- To record the concerns of bank account holders and write down their suggestions about implementing Facial recognition technology.
- To study the moral and physical requirements for applying Facial recognition system.
- To perform a SWOT analysis of Facial recognition system to the traditional system.

5. Approach

Firstly, in order to work on this research, two types of surveys will be conducted. One from the bank account holders to know their comfort and willingness on Facial recognition system in the ATMs and their opinion on its security. Second type of survey will be done specifically from the IT students, to know their perspective on introducing this technology and its security, that is based on their IT related knowledge.

Secondly, information will be collected on the requirements of implementing this technology such as the resources available and needed to efficiently apply this system and its expense in Bahrain. Information about the crimes being committed in the existing system will also be gathered.

Thirdly, some of the banks in Bahrain will be contacted through email to get their opinion on this proposed Facial recognition system.

Finally, information and data from all these above methods will be analyzed and discussed in detail to find out the probability of implementing Facial recognition system in the ATMs of Bahrain.

This research requires a personal computer, internet connection and approximately a time period of six weeks from now.

6. Significance of the Research

The results of this research will show the willingness of the users (i.e. bank account holders) to move to an advanced and safer version of an ATM, which will determine

whether this technology should be introduced or not. The current traditional system can be a threat to many people because of being less secure, whereas, Facial recognition system can bring more convenience, provide better security and help reduce the crime rate in Bahrain.

7. Project Timeline

31 March – 2 April	Writing literature review and methodology
3 April – 4 April	Designing surveys and getting supervisor's approval
5 April – 17 April	Distributing surveys and collecting answers
18 April – 20 April	Analyzing answered survey
20 April – 30 April	Writing the analysis
31 April – 1 May	Writing the abstract
2 May – 3 May	Writing the introduction
6 May – 7 May	Writing the conclusion
10 May – 11 May	Editing the format and the layout of the document
12 May – 15 May	Editing and proofreading the project

8. Literature Cite/Project References

Arunkumar, Vasanth kumar, naveenly king, Aravindan (2018), *ATM Security Using Face Recognition* [Online], Available from:

<http://troindia.in/journal/ijcesr/vol5iss4part10/59-62.pdf> [Accessed on: 31st March 2019]

Hossein Reza Babaei, Ofentse Molalapata and Abdul-Hay Akbar Pandor (2012), *Face Recognition Application for Automatic Teller Machines (ATM)* [Online] Available from:

<https://pdfs.semanticscholar.org/6e88/c7bda69f4bbc20c4b68a10da3ae0a300dbd2.pdf>

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Mohsin Karovaliyya , Saifali Karediab , Sharad Ozac , Dr.D.R.Kalbanded (2015),
Enhanced security for ATM machine with OTP and Facial recognition features

[Online] Available from: <https://core.ac.uk/download/pdf/82277548.pdf> [Accessed on:
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