BIOMETRIC AUTHENTICATION SYSTEM AS SECURITY ENHANCEMENT FOR AUTOMATED TELLER MACHINE

ATM SECURITY ANALYSIS

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Abstract

ATM has been the most useful thing that supports the transaction activity of the bank customer. However, the security that ATM holds, despite the importance its hold is not really balanced. Moreover, usage of ATM card and PIN are considered not secure anymore by some people. The aim of this thesis is to enhance the security of ATM transaction into a higher level using biometric technology.

Analysis of the current system through observation, interview, and research contributes many findings. Strength and weaknesses of the current ATM security system are also provided in the analysis. To complete the analysis, a questionnaire also distributed to assess the opinion of the users about the ATM security.

In the design part, experiments that involve gathering people’s hand image as samples are done. The result and analysis will be used to support the main design, which is a biometric authentication system that uses hand as the basis for authenticating a person. Parameters that are taken are the area of the hand which facing down, finger length, and finger width.

The analysis take quite some time before the pattern can be identified as the pattern that occur from the result of the experiment is a random one.

There is also the interface design of the proposed system which is presented in the form of screenshots and many supporting diagram to make the system understandable.

Key words: Biometric, ATM, security, touch screen.
Preface

Thank You God. Without You, none of this would happen. Thank You for the strength, guidance, and blessing all the way up to this point of my life.

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