

**Universiti Teknologi MARA**

**IMAGE PASSWORD  
AUTHENTICATION ON A WEBSITE**

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## **ABSTRACT**

Human factors are often considered the weakest link in a computer security system. If we point out that there are three major areas where human-computer interaction is important: security operations, developing secure systems, authentication. We focus on the authentication problem here. User authentication is a fundamental component in most computer security contexts. Studies about passwords show that user can only remember a limited number of passwords, they tend to note them down somewhere or will use the same/similar passwords for different accounts. Authentication is performed using passwords that are alphanumeric in nature. The problem is the users find it difficult in remembering a password that is long and needs to be recalled again and again while implementing it. In addition, text-based passwords are easy to crack by intruders.

To lessen the problems, this work proposed image password for authentication. However, Knowledge Based Techniques are the most widely used authentication techniques that include text-based and picture-based password. The recognition-based graphical techniques are one of the techniques of picture-based passwords. Using recognition-based graphical techniques, a user is presented with a set of images and the user passes the authentication by recognizing and identifying the images his/her selected during the registration stage. The user will upload the image/set of images along with all his/her details during the time of the registration. Then the image selected by the user will appear on the next page.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Study

Nowadays, security issues are especially important when using the Internet and other networks. Security breaches can affect the privacy and reputation of users (Chavan, Gaikwad, Parab, & Wakure, 2015). Due to this risk, various measurements have been taken to prevent network security. An example has been made due to the problem is more than any network. Encryption is defined as modifying the information into a special code, especially to prevent unauthorized users from accessing such information (Scholar & Kumar, 2015). Conversely, decryption is the opposite of encryption.

Now, it is more important to protect the data on the Internet due to the rapid increase in Internet users. An unauthorized people take a huge risk in form of data and thus the danger is more exposed to the citizens. (Rao, Tambe, Khude, & Patil, 2017).

Most encryption algorithms today are based on text data (Dhiman & Singh, 2017). The importance of secure password is password serves to almost all things carried out online. Password protects individual identity on the website, discussion group, e-mail account and more. Apart from that, also was used for bank transaction and make a purchase that is safe. The password is special protection towards computer hacker. The automatic programme also can be used to speculate password repeatedly from ordinary word database or other information.