



## Image Based Password Authentication

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**Abstract—** With increasing demand of security . Now a day's it is very critical issue, there for user authentication is one of the important topics in information security to protect users" privacy. Text based password authentication can be easily compromised with attacks. Image-based-authentication (I.B.A.) is a good alternative to traditional password system. Images are easier to recall than alphanumeric password. Image based password authentication system by using touch screen sensor based graphical LCD interfacing provides an image based security system. which can be installed in various sectors like industrial, educational institute, banking and medical also. This system provides a better security system for all users. This system provides user-friendly environment . Images are more easy to recall in comparison to string of character. To develop a hard to guess and crack password system keeping it very easy & interactive for the user . User can installed this system in personal hand held device like iphone, tabs, smart phone.

**Keywords—** Authentication, Security, Image, Password ,Login

### I. INTRODUCTION

Image based password authentication is most important topics in security password . Security plays a vital role in protecting resources against unauthorized access. There are numerous ways of authenticating a person. Authentication systems based on text passwords are widely used but they can be easily crack and also difficult to remember. image based authentication system is less vulnerable to attacks. The most common method used for authentication is text password that is the combination of letters and sting of character. But normally user selected a simple password because they can be easily memorized at the time of login . Then Simple and short password is easy to remembered while random and lengthy passwords are secured but hard to remember. This paper provides security to important information of user by using image based password system. This system is useful only for those peoples who are not able to remember passwords .And some one have more number of passwords there for to avoid the confusion among password this system is very useful. Here the password need not be a string of characters It can be few images this may be easy for the illiterates and those who are not remember their password. This system provides user-friendly environment for the users with a kind of image interaction. The human brain is more adept in recalling a previously seen image than a previously seen text. It can also be operated very easily there for this system is open to all illiterates even by very old people. Image based Authentication (IBA) is based on user's successful identification of his image key password. After the user name is sent to the authentication module,It displays a set of image blocks that are randomly arranged. The user has to select a sequence of image,that sequence of image is nothing but the secret image in the form of password to get successful access. It responds by displaying an image which The purpose of this paper is to present the authentication process which is simple enough and cost effective.



Figure 1. Gallery of Image

## II. LITERATURE SURVE

Image password become an effective research area after introducing the concept of click based passwords by Blonder in 1996. A system is presented with a set of images and the user passes the authentication by recognizing and identifying the images he selected during the regeneration stage. Image based authentication was developed as an image based password scheme where users select image from gallery of images The gallery displays on below Several Image Based Authentication systems have been proposed in literature . Dhamija and Perrig proposed a system D´ej`a Vu through which a person authenticates himself through her ability to recognize images which he has seen before that is at registration time. Rachna Dhamija and Adrian Perrig have proposed system to improve the security of the systems that relies on recognition-based, rather than recall-based authentication. Dhamjia & perrig proposed a graphical authentication scheme as shown in Fig. 1 . At the time of Registration user has to select number of images from set of random pictures. After at the time of login user has to identify the images that pr-selected at the time of registration. The aim of this system is to satisfy the some of requirements:

- 1.The system should not rely on precise recall. Instead, it should be based on recognition, to make the authentication task more reliable and easier for the user.
- 2.The system should prevent users from choosing weak passwords.
- 3.The system should make it difficult to write passwords down and to share them with others.

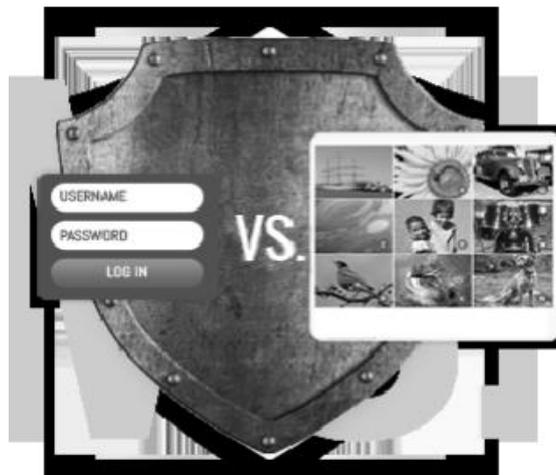


Figure 2. Comparison

## III. PROPOSED SYSTEM

Now-a-days, all business, government organizations and academic organizations are investing a lot of efforts, money, time and computer memory for the security of information. Password guessing attacks have been known since the early days of the Internet, there is little academic research on prevention techniques used in this system. Image Password Authentication scheme based on colour image gallery here the user having the choice to select minimum one and maximum three to four number of colour image block, therefore the user is having the flexibility to select the any kind of password i.e sequence of selecting images from gallery. Security is achieved because only user is known that what kind of colour image block selected and in what sequence. Image-based authentication techniques, is used in security goal in password-based authentication systems with that image in correct sequence for successful login. This system leverages the user's cellphone and communication service in case of incorrect authentication attempts. This is to prevent incremental guessing attacks.

### A. System Architecture

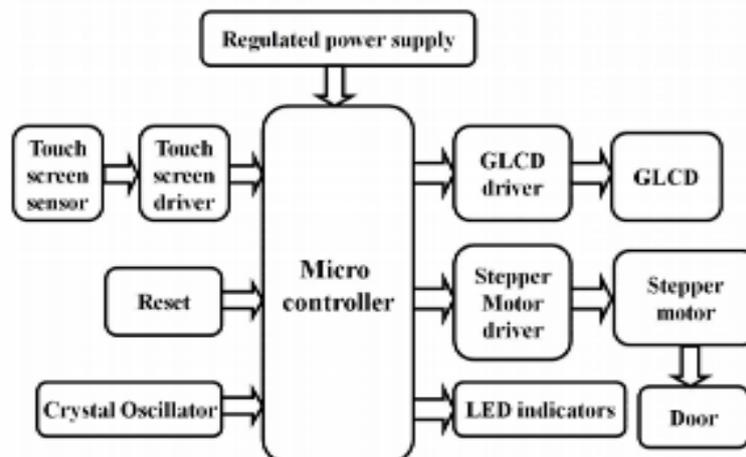


Figure 3. Block Diagram

### **B. Hardware description**

Regulated power supply with voltage regulator  
Micro controller  
Touch screen sensor  
Touch screen sensor  
Stepper motor  
Buzzer

### **C. Operation**

The user select a image that are easy to remember – such as watch, fish and cup of tea. In this example, the user would enter different images. Any time authentication is required, the user is presented with a randomly generated gallery of images.

The user authenticates by identifying which images on the gallery fit their secret authentication password categories. In this project the micro controller is the heart of system. All operation is perform according to micro controller. It has many input and output port which is connected to control unit. Touch screens provide fast access to any and all types of digital media, with the help of graphical LCD the image displayed. Using a touch interface can effectively increase operator accuracy. It reduce training time, and improve overall operational efficiencies, there for the system becomes simple and keeping costs down. A properly designed touch interface can improve each operator's accuracy. The image input from the touch screen is provide to controller and provides access to the user if the password received is correct

## **IV. FEATURES**

1. Choose the number of pictures displayed
2. Determine how many categories users must remember
3. Define whether a user must identify their categories in a specific order
4. Display or hide letters
5. Choose click able version or require users to type letters

## **V. CONCLUSIONS**

Image Password Authentication Scheme based on colour image gallery here the user having the choice to select minimum one and maximum N number of colour image block, therefore the user is having the flexibility to select the any kind of password i.e sequence of selecting images from gallery. Security is achieved because only legal user is known that what kind of colour image block selected and in what sequence Image- based authentication techniques, although currently in their infancy, might have a wider applicability in future common security goal in password-based authentication systems is to maximize the effective password . We perceive it more user-friendly technique that helps to increase the password quality tremendously compared to a text-based approach. In this paper we have proposed simple secure authentication technique issues of how better to protect the available information.

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