

PassNeighbor:A Shoulder Surfing Resistant Scheme

Abstract:

Information security is the rapidly rising area of concern in today's world of network technology. Traditionally, secure access to information is guarded by combination of username and password. The idea of graphical password as an alternative to text based approach was proposed by Blonder in 1996 motivated by the fact called as "picture superiority effect" i.e. tendency of human brain to memorize images far better than text. In this paper, we have proposed a new secure graphical password technique of authentication, which conceals information about the user's password without sacrificing the usability. The technique exploits indirect entry of password image by creating a delusion to select nearby neighbor which makes it difficult for a shoulder-surfer to identify the user's actual password.

Introduction:

This paper presents a shoulder surfing resistant graphical password scheme. The proposed method is recognition based technique, here the password images along with distracter images are provided as challenge set for input. These image are randomly placed in the presented challenge set, hence for every authentication session this placement strategy is different. During password creation phase, the user has to choose password images from the image portfolio set and a particular direction like left, right, top and down. Apart from password images, the user needs to remember the chosen direction for successful login. At the time of authentication step, instead of selecting the password image the user has to select its adjacent neighbor called as a subordinate image. For a particular password image there would be four adjacent neighbors (left, right, top and down block image), among them the subordinate image is governed by the direction chosen by the user during password creation step.

Technofist,

YES Complex, 19/3&4, 2nd Floor, Dinnur Main Road, R.T.Nagar, Bangalore-560032

Ph:080-40969981, Website:www.technofist.com. E-mail: technofist.projects@gmail.com