**ABSTRACT**

Password based authentication is the most widely used method to authenticate a user before granting access to the websites. With the proliferation of websites, the security level of password-protected accounts is no longer purely determined by individual ones. Users may register multiple accounts on the same site or across multiple sites, and these passwords from the same users are likely to be the same or similar. As a result, an adversary can compromise the account of a user on a web forum, then guess the accounts of the same user in sensitive accounts, which is stated as shadow attack on passwords. To overcome this drawback, image pixel-based authentication schemes are already in practice. But these techniques use a single image and multiple points to authenticate the user which can be randomly guessed by the attacker. In order to prevent this unauthorized entry, Clued Click Point technique is used. In addition to entering the right password, user must select the correct image pixel which was chosen at the time of creating the account. If wrong choices are made repeatedly, random images are generated and an alert message is sent to the user’s registered email id, thus providing an additional level of security. Thus by applying this security mechanism, the risk of cracking the password is minimized and the user is also alerted by an email.