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Brightness Based Password Safeguard System with Face Recognition in ATM

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Abstract: *The importance of security in the authentication process as well as the increase in threat level posed by such malware has attracted many researchers to the field. Many attacks are successful in accessing social network accounts since the current password-based authentication paradigms are not efficient and robust enough as well as vulnerable to automated attacks. The traditional two-factor authentication mechanisms are not applicable to online social networks because physical token or biometric data cannot be easily used to log into users' profiles. The simplest alternative is complementing the single factor (password-based) authentication process with additional identification elements, such as one-time PIN codes, generated by the user's own device (e.g. the smart phone) or received via SMS. Proposed a brightness based authentication mechanism (i.e., Bright Pass) capable of enhancing the security of identity confirmation PIN codes without asking the user to memorize an additional secret value or to solve a complex cognitive task. This method introduces a new input value that is changed at every usage combining a something you know element (i.e., the PIN) with an interface element that cannot be captured by spyware, i.e., a bright or dark circle displayed on the phone screen to tell the user when to digit the correct PIN digit and when to digit a fake one. It prevents the malware from correctly inserting the PIN code, thereby disallowing the possibility to perform critical operations without the user's agreement. Proposed work also focuses on implementing secure face recognition approach for user authentication. This approach will enhance the performance of ATM system.*

Keywords: ATM Interface Creation, User Account Creation, Application Login, PIN verification using Brightness Password, Face Recognition, ATM Application Access

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