Abstract

The most common account based password used for authentication is Textual passwords. But Textual passwords are in risk to phishing attack, burette force attack, social engineering and shoulder surfing. Biometrics is used for human recognition which consists of authentication, verification and recognition. Biometric passwords are introduced as alternative techniques to textual passwords. Many biometric systems exist today by using fingerprint, face, iris, etc but risk to duplicating a fake (For e. g. :- "fingerprint-gummy finger"). Palm vein authentication is one of the modern biometric techniques, which employs the vein pattern in the human palm to verify the person. The merits of palm vein on classical biometric (e. g. fingerprint, iris, face) are a low risk of falsification, difficulty of duplicated and stability. In this propose method, detecting a hand vein by using Near Infrared (NIR) Light method for web based account. A CCD camera will capture the image of person's palm vein region. The captured image will process through Mat lab software and emphasize to get vein structure. The detected palm vein structure which acts as a password for web based account for password security.

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Index Terms

Computer Science
Security

Keywords

Biometric Near-Infrared Image Normalization Binarization Filtering Image segmentation

Pattern Thinning
Matching.