

Fingerprint Authentication using Raspberry Pi based On IoT

Abstract:

User authentication is getting inflexible in our Internet of Things (IoT) world. Current approaches for authentication, such as passwords abetted by a second factor, are being reduced moot due to human fault as well as the improved sophistication of further malware attacks. We proposed a way of Fingerprint authentication is centered on minutiae matching where bifurcation, ridge ending are calculated as points and matched. This method is more vigorous than matching based on pattern and singularity points. The fingerprint is collected by optical sensor, which relays to cloud via Raspberry Pi. The fingerprints to be authenticated are stowed in a file server and web server performs 1:N verification once it obtains the data through POST request. It sends out a retort based on match score along with fingerprint index ID. Our process is secure as fingerprints are stored on server rather local platform.