

1125-VM-482      **Shota Kurtanidze\*** (shotkurtanidze@gmail.com), apt. 41, 67a Ketevan Tsamebuli ave., 0120  
Tbilisi, Rep of Georgia. *Securing FingerPrint Data By RSA algorithm.*

In many organizations fingerprint sensor is used to determine if person has access to this organization. It is reasonable to forbid storing fingerprints by organizations. We developed solution which allows organization to verify person's fingerprint without storing fingerprints in organization's database. We offer to use plastic cards which stores the encrypted version of the fingerprint of the person and for encryption the RSA algorithm private key of the Organization is used. When person's identity is to be verified, organization scans his/her fingerprint, then retrieves the encrypted fingerprint from person's plastic card, decrypts it with its public key and compares with the scanned fingerprint of the person and by this the correspondence of person's fingerprint with the encrypted fingerprint stored on the plastic card is established. As for identification of the person, his RSA private key is used. Person's fingerprint is stored on the plastic card as encrypted by the private key of the Person. The public key of the person is stored in organization's database. When retrieving user's fingerprint from the plastic card, organization has to decrypt it by the public key of the person and by this the identification of the person is conducted. (Received September 18, 2016)