A codeword-based indexing scheme for fingerprint identification

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Abstract: Fingerprint authentication system is now one of the most reliable personal identification methods. However, it is difficult to design a system such that it satisfies requirements in both accuracy and lookup speed due to large fingerprint database and complicated fingerprint measures. Therefore, fast and accurate fingerprint indexing plays very important role in fingerprint authentication system. In this paper, we present a new approach which is able to improve the performance of fingerprint indexing process. Moreover, this technique itself provides privacy property for fingerprint system which is not mentioned in previous indexing techniques. ?? 2008 IEEE.

Author Keywords: Biometric template protection; Error correcting code; Fingerprint authentication; Fingerprint indexing

Index Keywords: Biometric template protection; Code words; Error correcting code; Fingerprint authentication; Fingerprint authentication systems; Fingerprint database; Fingerprint identifications; Fingerprint indexing; Fingerprint systems; Indexing process; Indexing schemes; Indexing techniques; Lookup speed; New approaches; Personal identifications; Authentication; Biometrics; Computer vision; Identification (control systems); Robotics; Indexing (of information)

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