Fingerprint Biometric Systems

Kushsairy Kadir, Y. Faridah, Haidawati Nasir, Teddy Surya Gunawan

Abstract

One of the popular and widely practiced biometric systems is fingerprint Fingerprint biometric systems are smaller in size, easy to use and has low power. It is available and deployed globally in law enforcement, such as immigration, banking sectors, forensics, health care and many more. This study reviewed fingerprint biometric systems and the methods used in each proposed system. Many studies have been done in the area of feature extraction and matching stages. The current techniques used in these stages are minutiae-based and euclidean distance-based. Application of the fingerprint biometric system in the industries has been accepted widely and used in the Europe and some developed country. Malaysia has also incorporated the use of this system in its administration for controlling the point of entry at the Kuala Lumpur International Airport. Generally, fingerprint biometric systems can be categorized into recognition, security, identification and control systems. Each system has their benefits and drawbacks that complemented each other.