Biometrics Security - Fingerprint Authentication

Costinela Luminiţa DEFTA (CIOBANU)* May, 2011

Abstract

The main issue regarding the authentication of users via the internet is the inherent lack of security of traditional authentication methods. Passwords are often forgotten or written down and can be stolen using keystroke loggers. Biometric authentication is a safer solution because a biometric can't be stolen, misplaced, forgotten or copied. The fingerprint authentication has more advantages than other biometric technologies and has been thoroughly verified through various applications. This type of authentication is now also available for the home and business user and is now becoming increasingly popular with laptop manufacturers. In this paper we will briefly describe the biometric technology, we will highlight, from a security point of view, the main issues of the fingerprint authentication and we will describe some methods for securing fingertip recognition systems.

2010 Mathematics Subject Classification: Primary 68P15, 68P05; Secondary 68N17.

Key words and phrases: authentication, security, fingerprint, biometrics, protocols.

^{*}University of Pitesti, Faculty of Mathematics and Computer Sciences, Computer Science Department, Targu din Vale Street, No.1, 110040 Pitesti, Romania, lumi.defta@yahoo.com.