

#15

A report submitted in partial fulfillment  
of the regulation governing the award of the  
Degree of BSc (Honours) Computing  
for Business at University of  
Northumbria at NewCastle

Title: Biometric ATM Security Enhancement System

Student Name: Kumutha a/p Manoharan  
(99107578)

Course : BSc (Hons) Computing for Business

Year : 2004/2005



## ABSTRACT

This project proposes a biometric ATM security enhancement system, which involves fingerprints recognition as an authentication method. This project also identifies the user through a biometric interface. It uses a biometric USB fingerprint scanner.

This project uses minutiae-based representation, each minutiae is describe by location(x, y coordinates). Fingerprint verification will be an easy task of just counting the number of spatially matching pairs between the two images.

The whole system is design using Microsoft Visual Basic and Microsoft Access as the database. The system needs the hardware, which is the USB fingerprint scanner and also the smart card reader. Identification and verification is possible through this system.

Increasing the security will be one of the main highlight in this modern Biometric ATM Security Enhancement System. Results show that minutiae-based matching technique works very well but with some limitation.