EEE-6561 Fundamentals of Biometric Identification
Spring 2018 Homework #1

January 12, 2018

Due: January 17, 2018, 11:59 PM

This assignment should be completed individually by the student. Late submissions will not be accepted. Proper citation should be provided for any references used.Points will be awarded based upon the thoroughness of the answers you provide.

1. [20 points] Consider a scenario wherein a hand geometry-based biometric system is installed in the bookstore at the University of Florida. Assume that shoppers have the option of enrolling into the system which would allow them to render payment at the checkout register by placing their right hand on a scanner and typing in a four digit PIN. The purpose of the biometric system would be to access and update the customer's bank account. Based on the biometric application taxonomy discussed on pages 28-29 of the text, how would you classify this system? Justify your answer in detail.

2. [30 points] (Case Study) Biometric systems have been deployed in transportation applications (e.g., airports), commercial scenarios (e.g., grocery stores), forensics (e.g., disaster victim identification), medical services (e.g., medical record security), etc. Pick one such **specific** application and describe the following in detail:

   (a) How would you classify this system?

   (b) Which traits are being used for identification?

   (c) Describe the operation of the biometric system?

   (d) What target population would most likely use this system?

   (e) Why was a biometric-based solution incorporated into the application?