Introduction to Biometrics

BINF 639 / FRSC 580

Term: Fall 2010, Tuesday 4:30pm
Instructor: J. M. Kinser
Location: Fairfax Campus

Overview

This course explores topics in forensic biometrics. The major topics include fingerprint recognition, face recognition, speaker identification, and handwriting analysis. At the end of the term selected minor topics will also be examined. These may include iris recognition, gait recognition, malicious documents, and forensic DNA analysis.

Students in this class will use software developed specifically for this course to put into practice the algorithms which are discussed in the lectures. The final grade for this course will be based on performance in the exams as well as the results from applications.

Schedule

Week 1: Course introduction and computing skills.
Week 2: Data Collections and computing skills.
Week 3: Theory of face recognition algorithms
Week 4: Applications in face recognition.
Week 5: Theory of fingerprint classification and recognition systems.
Week 6: Applications in fingerprint recognition.
Week 7: MIDTERM
Week 8: Theories in speaker identification.
Week 9: Applications in speaker identification.
Week 10: Theory in handwriting analysis.
Week 11: Minor topic: Forensic DNA.
Week 12: Minor topic: Student's choice
Week 13: Student reports.