

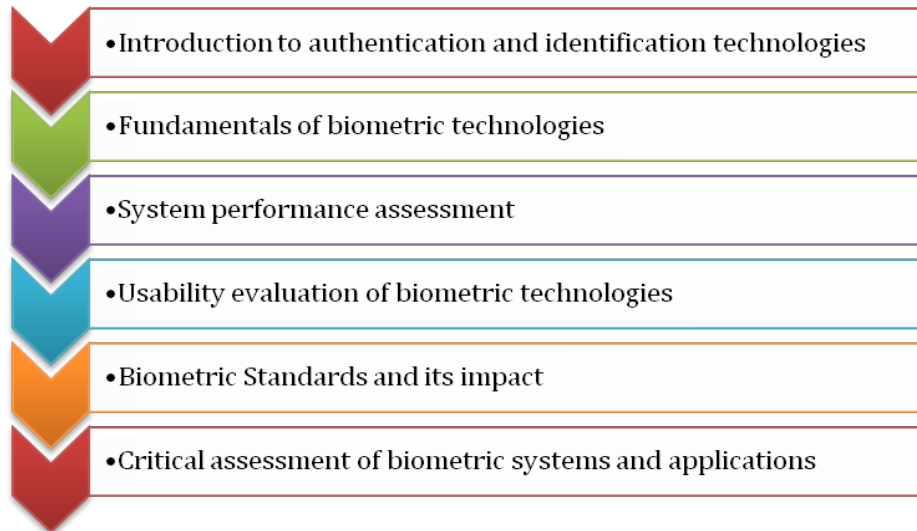
Purdue University announces

Biometrics: Systems and Applications

An online course on biometric technologies and applications

Purdue University's Biometrics Standards, Performance, and Assurance Laboratory (BSPA) is offering an online education program on biometric technologies and applications. This self-paced, noncredit educational program provides a private virtual classroom that can be used during a timeframe that's convenient for participants. The biometrics online education program is designed for security professionals, managers, and individuals who want to learn about biometric technologies and its applications. The course is designed as a series of 16 modules, with a quiz at the end of each module. The module details are on Page 2.

Course Objectives



Learning Outcomes

- To understand biometric terms
- To gain a broader knowledge of biometric technologies
- To understand differences among biometric technologies
- To design better biometric systems
- To critically evaluate biometric systems in real world applications

Registration

- You can register online at: <http://www.continuinged.purdue.edu/bsacert>

Contact Information

- For more information on course material or registration requirements, please email contact@bspalabs.org.



BSPA LABS

BIOMETRIC STANDARDS, PERFORMANCE, AND ASSURANCE LABORATORY

Module Details

The course is structured as a series of 16 modules with a quiz following each module. Listed below are the topics that will be covered in each module.

Module Number & Name	Description
1. Course Introduction / Introduction to Authentication Technologies	<ul style="list-style-type: none"> Basics of authentication technologies Differences between biometrics and traditional authentication Impact of biometrics on information security Biometric System Model
2. Biometric System Performance Terminology	<ul style="list-style-type: none"> Performance assessment terminology Testing methods used in biometrics Acquisition errors and its calculation Comparison errors and its calculation Graphical analysis of system performance
3. Fingerprint Recognition 4. Iris Recognition 5. Face Recognition 6. Vein Pattern Recognition 7. Hand Geometry 8. Voice Recognition 9. Signature Verification 10. Keystroke Dynamics 11. Retina Recognition	<ul style="list-style-type: none"> History Anatomy and discussion of biometric features Acquisition techniques Feature extraction techniques Discussion of feature matching techniques Impact of quality on performance Discussion of challenges & applications of each technology Video case studies
12. Multi-biometric Systems	<ul style="list-style-type: none"> Introduction to multi-biometric systems Types of multi-biometric systems Levels of fusion in multi-biometric systems Discussion of challenges & applications of multi-biometric systems
13. Usability of Biometric Systems	<ul style="list-style-type: none"> Introduction to human biometric sensor interaction Evaluation of biometric systems from user's perspective Impact of sensor design and human perception on performance
14. Biometric Standards	<ul style="list-style-type: none"> Structure of biometric standards organizations Importance of biometric standards Discussion of biometric standards
15. System Integration	<ul style="list-style-type: none"> Requirements analysis of applications with respect to biometrics Analysis of system vulnerabilities Biometric data lifecycle Biometric management policies Privacy considerations
16. Final Exam & Case Study Analysis	<ul style="list-style-type: none"> Case study analysis Final comprehensive exam



Course Material:

There is no required book for this course. All course related material will be provided as part of the lecture material. The “Handbook of Biometrics”, edited by A.K Jain, P. Flynn and A. Ross, is recommended as reference material.

