CAP 6010 - Multimedia Systems

Prerequisites: COP 4610 Operating Systems or permission of instructor


Textbook:

Instructor: Dr. Borko Furht, Professor of CSE
E-Mail: borko@cse.fau.edu Phone: 561-297-3486

Goals: To provide an in-depth survey of the state-of-the-art in multimedia system design and applications. The student shall learn the basic techniques and standards for image and video compression (such as JPEG and MPEG), multimedia synchronization techniques, and operating system support for multimedia. In addition, the student will understand requirements of multimedia networks, both wireless and wireline, and protocols to support multimedia transmission.

Topics:
1. Introduction to multimedia systems
2. Image compression techniques and standards
3. Video compression techniques and standards
4. Motion estimation algorithms
5. Multimedia processor architectures
6. Image and video indexing and retrieval
7. Multimedia networks and communications
8. Multimedia integration and synchronization
9. Multimedia operating systems
10. Multimedia and the Internet
11. Wireless multimedia
12. Multimedia applications

Grading format: Programming Assignments (20% and 30%) 50%  
Tests (20% and 30%) 50%  
------------------------------------------------------------------------  
TOTAL 100%