ECE 624 Multimedia Systems

Credits: 3 hour

Description: This course discusses design issues of multimedia information system. It provides a general coverage of three major areas that include multimedia data management (logical and physical modeling), broadband wired and wireless network architecture and protocols for distributed multimedia communication, and user interface environments. Various models and specification methodologies in these areas are introduced. The discussion is augmented with various case studies.

Motivation and Objectives: Multimedia is a newly evolving application-oriented discipline that requires integration of three base technologies, namely; data management, broadband communication (such as WiMax, 4G), and user interface. The major challenge is to integrate diverse data types including text, images, audio, and video and composed objects in a meaningful way. The result is the emergence of many applications found in business, education, manufacturing, CAD/CAE/CAI, telemedicine, entertainment etc. The objective of this course is to study the current-state-of-the-art and engineering challenges in multimedia data management, broadband and wireless networking technologies for distributed multimedia systems, and user interface. Various approaches to meet these challenges and trade-offs among these approaches are introduced.

Text: Research Papers and Handouts.

Instructor: A. Ghafoor