

COP 6930 – Advanced Internet Engineering

Prerequisites: graduate status and basic knowledge of Internet and Web systems and programming. For undergraduate students: permission of instructor.

Course Description: Students will get familiar with current Internet and Web technologies and application trends. Topics include computer networks and Internet architectures, wireless Internet, Internet and application service providers, multimedia transmission over the Internet, and advanced applications. Student projects: programming and research projects.

Textbook:

- *Handbook of Internet Multimedia Systems and Applications, CRC Press, 1999.*
(selected chapters)

Reference Material:

- J.F. Kurose and K.W. Ross, “*Computer Networking: A Top-Down Approach Featuring the Internet*,” Addison-Wesley, 2001.
- B. Furht, “*Handbook of Internet Computing*,” CRC Press, 2000.
- *Selected papers*

Instructor:

Dr. Borko Furht, Professor of Computer Science and Engineering

Topics:

1. Introduction to Internet and World Wide Web
2. Design of Web Sites
3. Computer Networks and the Internet
4. Wireless Internet
5. Multimedia Networking
6. Internet Service Providers and Application Service Providers
7. Content-Based Multimedia Search and Retrieval on the Internet
8. Real-Time Video Over the Internet
9. Internet-Based Unified Messaging Systems
10. Multimedia Applications on the Internet
11. E-and M-Commerce Applications
12. Students’ Projects

Grading Format:

Test	30%
Challenging Problems	10%
Student Projects	60%
Total	100%