Brooklyn College
Department of Computer and Information Sciences

CISC3645 [50.1] Multimedia Security

3 hours; 3 credits


Syllabus:

1. Intellectual property protection
2. Copyright industries
3. Information security objectives: confidentiality, data integrity, authentication, non-repudiation
4. Overview of cryptography
   a. Classification of ciphers
   b. Types of authentication
   c. Digital signatures
5. Overview of watermarking
   a. Requirements for a watermarking scheme
   b. Classification of watermarking schemes
   c. Common attacks
6. Conditional access (CA) systems for satellite, cable and terrestrial television networks
7. Digital rights management (DRM) systems for the Internet
8. Copy protection (CP) systems for digital home networks
   a. DVD protection
   b. Digital interface protection
9. World Intellectual Property Organization (WIPO)
10. U.S. laws for copyright protection
11. Selective encryption for multimedia data
12. IP multicast security in wired networks
13. IP multicast security in wireless networks
14. Security of wireless LANs

Bibliography: