

COT 6930 – Mobile Multimedia

Course Description: This is a graduate level course on Mobile Multimedia Services. The course will cover technologies, tools, and standards for multimedia services over 3G/4G wireless networks. Topics covered include the 3GPP's *IP Multimedia Subsystem (IMS)* and video services over IMS.

Prerequisite: graduate status and basic knowledge of programming, and communication networks.

Text book: Emerging Wireless Multimedia: Services and Technologies by Apostolis Salkintzis (Editor), Nikos Passas (Editor). Wiley. August 2005. ISBN: 0-470-02149-7

References:

The IMS: IP Multimedia Concepts and Services in the Mobile Domain by Miikka Poikselka, Georg Mayer, Hisham Khartabil, Aki Niemi. Wiley. June 2004. ISBN: 0-470-87113-X

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Studio Time: 9:30 AM to 10:50 AM Tue and Thr **Office Hours:** 11:00 AM to 12:00 Noon,
Tue and Thr or by appointment

Goals: This course is intended to introduce the state of the art in the next generation of multimedia services over wireless networks. The course will cover the key coding and communication standards for multimedia services over 3G/4G networks. The course will provide a background and experience in the area of video communications relevant to the industry needs today as well as the challenges and future developments in the field.

Topics:

1. Introduction to Wireless Multimedia
2. Video compression – MPEG-4 and H.264
3. Multimedia content representation (MPEG-4 LAsER and SMIL)
4. QoS Provisioning
5. RTP
6. Multimedia Messaging Service (MMS)
7. Multimedia Broadcast Multicast Services (MBMS)
8. IP Multimedia Subsystem (IMS)
9. Multimedia Personal Area Networks
10. Pervasive Media Delivery

Grading:

Final Exam	30%	Projects	70%
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