EE 6533 - Topics in Communications:
Mobile Systems

Intersession 2003-2004

Course Outline

Class Times: MWF 10:30-12:30
Class Room: GC111

Instructor: Professor D. MacIsaac
Office: ITD418 (Information Technology Centre)
Office Hours: Mondays 1:30-3:00 Wednesdays 9:00-10:30
Email: dmac@unb.ca
Course Web Site: http://www.ece.unb.ca/Courses/EE6533/DM/Index.htm

Course Description

The purpose of this course is to offer graduate students interested in electrical engineering, computer engineering and computer science an opportunity to become familiar with recent advances in Mobile Systems. Fundamental theory required to appreciate state of the art technology in mobile systems will be covered along with a survey of that technology. No prior exposure to mobile systems is required, but a background in basic communications is recommended. Proposed topics of interest include:

Marking Scheme

Assignment:	3/student	15 %	(5% each)
Seminar:	2/student	20 %	(10% each)
Term Paper:	2/student	40 %	(20% each)
Final Paper:	1/student	25 %	

Reference Materials

Text Book: D Agrawal, Q-A Zeng, Introduction to Wireless and Mobile Systems, Thompson Learning Inc. (Brooks/Cole), 2003.

Tentative Schedule

Week	Topic	Date	Slot
1	Course Organization	04-05-05	1
	Seminar Assignments	04-05-07	1
2	Introduction	04-05-10	1
	Mobile Radio Propagation	04-05-10	2
	Traffic Theory	04-05-14	1
	Basic Queing Systems	04-05-14	2
3	Multiple Radio Access	04-05-17	1
	Channel Coding		2
	Multiple Division Techniques	04-05-19	1
	A closer look at CDMA	04-05-19	2
4	Wireless Security Issues	04-05-26	1
	Wireless Security Issues	04-05-26	2
	Programming Environments Tools and Challenges	04-06-28	1
5	Programming Environments Tools and Challenges	04-05-31	1
	Programming Environments Tools and Challenges	04-05-31	2
	Adhoc and Sensor Networks	04-06-02	1
			2
6	Mobile, Wireless and Satelite systems and Standards	04-06-07	1
	IEEE 802.11	04-06-07	2
	Bluetooth	04-06-09	1
	Ricochet, HomeRF	04-06-09	2
7	Review	04-06-14	1
		04-06-14	2