

CS698T

Wireless Networks: Principles and Practice

Topic 01
Introduction, Course overview,
Evaluation plan

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<http://www.cse.iitk.ac.in/users/braman/courses/wless-spring2007/>

Why do a Wireless Course?

- Motivation to do any course:
 - Learning
 - What do you know after the course which you did not know earlier?
 - Practical use
 - How is what you have learnt useful?
 - To others?
 - To yourself?

Two Aspects of any Course

- Learning
 - As your instructor, it is my duty to enthuse you on the subject
- Evaluation
 - Second in priority, but of some importance

Course Contents

	Topic	Number of hours
1	Intro, course outline	0.5
2	Wireless networking challenges	1
3	Wireless propagation, fading	2
4	Path loss, antennas, modulation	2
5	Embedded sensor applications	2
6	802.15.4 PHY, MAC	2
7	TinyOS for embedded programming	1
8	Wireless performance measurements	3
9	Censoring sensor networks	1
10	802.11 PHY, MAC	5
11	Long-distance WiFi, 2P MAC	1
12	Wireless mesh networks, routing	2
13	Mobile IP	1.5
14	GSM	2
15	TCP over wireless	2
16	Introduction to cryptography	1
17	802.11 security issues	1
18	RFID systems	2
19	WiMAX overview	1
		33

Related Courses

- Prerequisite: CS425 (UG networking course)
- CS625: Advanced Computer Networks
- CS725: Topics in Computer Networks
- CS634: Mobile Computing
- EE670: Wireless Communications
- EE 676: Digital Mobile Radio Systems
- EE 642: Antennas Analysis & Synthesis
- EE 643: Smart Antennas for Mobile Comm.

Evaluation Plan

Quiz-1	5.00%
Mid-semester exam-1	15.00%
Quiz-2	5.00%
Mid-semester exam-2	15.00%
Project (groups of 2)	20.00%
End-semester exam	40.00%

Keep in mind...

- Make use of office hours: Fri 10-11am
- Reference material:
 - No books, will involve research papers, standards, etc.
 - You will learn how to read/critique research papers
- Participate in class: ask questions

It matters how you learn

- Sincerity, hard-work: **committed** learning
- Time management: **methodical** learning
- Discussion & participation: **group** learning
- Straightforwardness, honesty, no short-cuts: **ethical** learning



1 kg
20 for

1 kg
20 for