Course Project
Deadlines & Instructions

Tamer Nadeem
Dept. of Computer Science
Class Project

- **Goal**: obtain hands-on experience

- Semester-long research project to be done individually or in teams of two.

- **Team selection** due date: Feb 8th, 2013

- Each team works on a separate research problem that involves implementing some wireless scheme, service, or protocol.

- Students will have the flexibility to either formulate their own problem or choose from the problems suggested by the instructor.

- Projects will involve additional project-specific background reading. Each project is expected to produce a *publication-quality* report at completion.
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• Project components (grading criteria):
  • Problem identification/formulation
  • Literature review
  • Solution design
  • Detailed implementation
  • Experiments/measurements evaluation

• Each paper you read is someone’s project
  • Many papers are actually student’s class projects
  • Read them critically
  • Ask yourself
    • Is the problem really important? Should you care?
    • Is the solution sound? Under what assumptions? Do you have other (better) ideas?
    • Is evaluation biased? Are results shown only in good light?
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• Discuss your thoughts, ideas with me
  • They need not be cooked, and can have many flaws
  • Statistically, every 18 ideas lead to one decent idea

• If you like an area / direction
  • Read many many related papers (utilize your readings from the survey paper)

• Don’t try to come up with a quick solution
  • Ensure your problem is a new, real problem
  • Finding the solution is typically easy
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• Protocol evaluation typically requires coding
  • Think what you would like to do
  • Options are:
    • Coding on real devices (like sensors, phones, routers)
    • Coding in existing network simulators (ns2, Qualnet, etc.)
    • Coding your own simulator
    • Theoretical projects involve MATLAB, CPLEX, etc.

• Project ideas take time … think now and then
  • Spending 3 hours for 10 days better than 10 hours for 3 days
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• Find a project partner early
  - Discuss reviews, papers (e.g., Mobicom, Mobihoc, Mobisys, INFOCOM), potential project themes

• Class project often bottlenecked by platform
  - Think of the evaluation platform during project selection
  - If you are not familiar with the Linux OS, it’s a bad idea to do a project involving router-programming
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- The project will have **four reports submissions** over the course of the semester building toward a paper

- **Deadlines:**
  - Feb 20: Preliminary Report due, should cover:
    - Problem statement
    - Motivation
  - Mar 13: Progress Report due, should cover:
    - Literature review
    - Methodology
  - Apr 17: Results Report due, should cover:
    - Experimental setup
    - Results
  - Apr 28: Final report due, should cover:
    - Introduction
    - Conclusion
    - Abstract
    - [Everything else]
  - Apr 29: In class demo/presentation.

- The report must be in pdf format and the subject line of [CS795-WNS-S13] Project-[Proposal|Progress|Results|Final]– LastName1-LastName2