Project 2 Overview

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High Level Overview

- The project must give you more depth in one aspect of wireless networking or systems
- There must be a concrete deliverables
  - A design, implementation, measurements that are interesting, ..
- There is a strong preference for projects that involve real wireless signals being abused by propagation through the ether
  - Simulation may be a reasonable alternative in some cases
- An ideal project will have both conservative and stretch goals
- You should consider both technical and logistic risks
  - E.g., access to hardware/software, unexpected functionality, …

Deliverables

- A short e-mail with team members, 2-3 possible, ranked project topics
- A projects proposal of 2-3 pages.
  - The more detail you provide, the more feedback I can give
- 2 checkpoints as specified in the project schedule. Details on format will be provided closer to the deadlines
- A short presentation at the end of the semester, possibly with demo
- A short project report that describes not only what you did, but also what you learned (see handout)
- Meetings with course instructor to discuss your project proposal and checkpoints

Example of Recent Project 2 Topics

- An information-centric wireless datalink layer
- A system to monitor Low Earth Orbit (LEO) satellites
- A WiFi system for buggies
- A TDM protocol for sensor networks
- A Cross Technology Communication system for WiFi to Zigbee
- Design, evaluation of a Visible Light communication system
- Acoustic wireless links
- WiFi relay placement selection using a Roomba vacuum cleaner
- Measurement study of IoT communication in TV White Spaces

Discussion

- If you want to talk about possible projects and get early input, please use office hours
  - This can save you a lot of time by avoiding spending time on projects that are unrealistic, not interesting, …
- Deadlines are exactly that: the last day you can submit
  - If you submit early, you will get feedback early!
- Make sure you discuss your hardware requirements with me early
  - Some things are easy: Raspberry Pis, WiFi interfaces, etc.
  - Some hardware may not be feasible
  - Also, keep delivery times in mind