In this lecture we study sensor networks for smart homes. The topics covered are: smart home applications and sensors; activity recognition and activity discovery; making smart home technology useable and useful; future challenges.

**Lecture:**

[http://host.comsoc.org/livebroadcast/ccnc12/streaming/keynote_cook.html](http://host.comsoc.org/livebroadcast/ccnc12/streaming/keynote_cook.html)

**Questions:** *Listen to the lecture and answer the following questions.*

What is a smart home?

What type of sensors can be used in a smart home? List some of their advantages and disadvantages.

What is activity recognition? Outline the process for performing activity recognition. List some of the challenges.
What is “generalized accuracy”? Why is it important?

List some of the ways in which users (as opposed to researchers) can access and benefit from smart home technology.

In your own words, describe one or more of the future challenges for smart homes.

**Homework:** Submit to cssubmit your answers to the lecture questions (see above), and your two research paper summaries (see below) by 8am Tuesday 28 August 2012.

1. Visit the casas project web site [http://ailab.wsu.edu/casas/](http://ailab.wsu.edu/casas/) and elect and read a paper that interest you from their publications page. Summarize the findings of that paper.
2. Select a related paper from another group (maybe a reference or citing paper) Summarize the findings of that paper.
3. Include full bibliographic reference for both papers in your report.
4. Start work on your essay for the unit (see unit web page). Help will be available during the Friday lab session this week with finding references and planning your research.

When reading and aiming to understand a research paper, you should try to answer the following questions:

What did they do? Why did they do it? What happened? What do the results mean? What is the work good for?