

CSE 990-001: Cyber-Physical Systems HW #3

Assigned: 2016-09-27
Due: 2016-10-11 in-class

Homework Overview

The idea with this homework is to get you reading the CPS literature. In this homework you will select two CPS papers that will help you with your project and write up a summary of those papers. Objectives:

- Gain experience reading CPS papers and more generally the academic literature in this area
- Gain experience researching, assimilating, and analyzing material

Grading

100 points. 15% of final grade. Please put forth a solid effort to read, understand, and synthesize the material.

HW #3

1. Select two CPS papers that interests you and read them.
 - (a) Here are a few possible places to look:
 - i. International Conference on Cyber-Physical Systems (ICCPS)
 - ii. Proceedings of the IEEE special issue on CPS January 2012
 - iii. ACM Transactions on Cyber-Physical Systems
 - iv. Plug “cyber-physical systems” into a Google Scholar search and you’ll get lots of papers
2. Prepare a one page summary for each paper
 - (a) 1/2 page on paper content, sufficient for you to remember the paper, including
 - i. General topic of the paper
 - ii. Context (application area, related work, etc.)
 - iii. Technical contribution
 - iv. Method used, experiments, evidence to support contributions
 - (b) 1/2 page critique:
 - i. What assumptions do the authors make?
 - ii. Were the contributions supported? Were they flawed? (In what systems or applications do they apply?)
 - iii. Any obvious future work?
 - iv. Any novel methods or techniques compared to other papers?
 - v. Did you learn anything? Are there papers with a better example?
 - vi. Does anything from the paper relate to your class project? Your other research?
 - vii. Has the work been discovered or applied to other fields? Should it be?
 - viii. Personal notes for yourself (really great figure, interesting explanation approach, etc.)