

CMPSC 580
Topics and Research Methods in Computer Science
Spring 2015

Assignment 20
Module 3 Proposal
Due Thursday, 2 April

Write a senior thesis proposal that is related in some way to the topic of “multi-agent or multi-robot systems”. Your proposal should be a *minimum* of five pages long, using the `senior_thesis_proposal.tex` file in the `cs580s2015-share/proposal-template` repository. You will also need to create a `.bib` file for your references, downloading your sources from the ACM Digital Library.

Choose a descriptive and accurate title for your proposal. Provide a one-paragraph abstract that summarizes the essential points of your proposal, connecting directly to the proposal’s title.

You may alter the section headings in the proposal template if a different organization seems more suited to your topic, but your proposal should still contain the same information—motivation and background, review of previous work in the field, method of approach, evaluation strategy, schedule, etc. Obviously you do not need to create a complete solution for the proposed problem, but you need to precisely describe the model you would use (i.e., how the agents are interacting with each other and the environment) and describe how you could potentially solve the proposed problem, which method or algorithm would you use and a justification for your choices.

You have to include at least one *technical diagram* or a *flowchart* in your proposal. The flowchart can describe the process you are using, while a diagram could describe the technical details of your proposed solution, a model or an algorithm that you are using. You have to use TikZ, or some other similar software package, to draw your diagram in L^AT_EX. In addition to asking the course instructor for help, you may consult <http://www.texample.net/tikz/>, <http://www.ctan.org/pkg/pgf>, or <http://sourceforge.net/projects/pgf/> for more examples and explanations.

Your proposal should cite multiple scholarly resources for your topic and related fields—books, journal and conference articles, technical reports, etc. The full details about these resources should be formatted using B^IB_TE_X and should appear in the “References” section of your paper.

You must have your proposal read and edited by at least one person in this class, and you must read and edit at least one proposal other than yours. Submit the hard copy of the edited version (with hand-written comments by the editor) of your proposal signed by both the writer and the editor. Also submit a signed hard copy of the final version of your proposal. Submit both documents in class on Thursday, April 2, and also commit your final `.tex` and `.bib` files to the your course repository you have shared with the faculty in a subfolder with a name like “assignment20”.

I’m available in person and via email if you want to run any ideas by me, or if you are having problems with your L^AT_EX. To ensure that I can offer timely assistance, please ask for help early!