

# CAP 6671: Homework

(due to me in email by Apr 11th)

Dr. Gita Sukthankar

Planning, coordination, and learning are three important components in an intelligent software agent system. For this homework assignment, you have your choice of implementing one of the following algorithms in the domain that you are using for your final project:

1. state-space planner
2. Q-learning
3. auction-based coordination algorithm

You must turn in a detailed written description of the following things:

1. a formal description of your domain (e.g., possible states, actions)
2. a detailed description of the algorithm as you have implemented it
3. source code/executable that I can run

If none of these algorithms are applicable to your particular domain, you can implement them in a standard robot navigation problem or any one of the domains (e.g. Robocup) that we've discussed during class this semester. You may choose to use aspects of your code and writeup as part of your final project. If you are working in a group, each member must give me a separate writeup and note who collaborated with you on the homework.