

# CENG 242

## Hw #4

Spring 2007/2008

**(Due: April 27<sup>th</sup>, 2008 Sunday 23:59)**

In this homework you will implement classes and its methods for a hunter-prey framework. In this framework there will be a map with obstacles, and cooperative and competitive agents. You won't implement a decision mechanism for the agents but all the required classes and methods for the simulation. You have 4 main classes: position class to represent a location on the map, map class to present the arena, feedback class to present the feedback of the arena to the agents after each turn and agent class to present hunters and preys. Further explanations about classes and methods are given in header file

You will have two files. One is **hw4.h** for your class declarations, structures, enumerated types; the other is **hw4.cpp** for your definitions. hw4.h file is given initially, but you can add new methods to it without modifying existing ones, because I will test the methods declared in given hw4.h file. You should **not** write **main** function in these files. I will write a *main* function in **hw4main.cpp** to test your codes. If you want to test your codes before submitting, write a *main* function in *hw4main.cpp*, include *hw4.h* from this file, download the **Makefile** from website, put them in the same folder and compile your codes with the command **make** in that folder in **inek** machines.

### Specifications:

- Follow the newsgroup for any questions and possible updates.
- All the work should be done **individually**.
- You will submit a single tar file **hw4.tar** including *hw4.h* and *hw4.cpp*. You can tar your files with the command "*tar cvf hw4.tar hw4.cpp hw4.h*". Do not send me in other formats like ".tar.gz", ".rar", ".zip" etc.
- You will submit your codes through cow system. Specifications (file name, method names, class name, types etc.) are strict. Breaking any of them will cost you getting a 0 since black box method is used.