



Research Topic (2)

Title: Clustering, Gaming and Search

Description and Instructions

General Instructions

- Research thesis replaces the final written exam
- The research is individual
- Each part/component of the research has a weight
- Research submission is online in electronic format
- Due date will be the date announced by faculty/program administration
- Research should be submitted in announced Student Template
- Plagiarism checking will be applied. Research is subject to rejection in such case

1. Research Description

1.1. Research short description/general objectives

The research topics focus on three artificial intelligence algorithms which are the Depth-first search (DFS), the Alpha-beta (gaming) and the K-means algorithm. Go to file ([topic2_description](#)) for the detailed requirements of each algorithm.

1.1. Research phases/requirements

Your thesis document should be organized as described in file ([topic2_student_template](#))

1.2. Research deliverable

You should deliver two documents:

- 1- The research thesis document organized as student template ([topic2.pdf](#)).
- 2- One Python file including the code of the 3 algorithms ([topic2.py](#)).

1.3. Research references

Research always have references (books [1], article/paper [2], published lecture or content [3], or web sites [4]). There is no problem in using references, but ethically you



should cite them correctly. Here are examples of how you cite your research references.

[1] AuthorLastName, AuthorFirstname. *Title*. Publisher, Year.

[2] AuthorLastName, AuthorFirstName. "Article Title." *Journal Title*, Version, Number, Publication Date, Page Numbers.

[3] Lecturer's name. "Title of lecture." Name of sponsoring organization. Physical Location of lecture, date.

[4] AuthorLastName, AuthorFirstName. "Title of Article or Individual Page." *Title of website*, Name of publisher, Date of publication, URL

1.4. Guidance to submission

Check carefully your documents (the pdf file and the py file) before submission.

Best Wishes