Final Project Description

IE481 & IE801 Game theory with engineering applications

Due 22 June 2018

The course title is "Game theory with engineering applications", but the course lacks engineering applications. I hope all of you suggest a possible way of employing game theory to solve engineering problems. In that sense, the objective of the final project is to encourage students to define their own problems of interests and formulate them in a formal mathematical way. The topic ***should be related to the general theme of the course***. Note that re-formulating a well know problem in a game theoretic framework itself deserves lots of praise.

As part of the project, you can discuss the following:

1. Define your own problem. It can be anything
2. Formulate the problem using mathematical expressions
3. (If you use any data) Describe what type of data is required for the formulation
4. Discuss what types of equilibrium concepts or decision making methods can be used to solve the formulated problem
5. Evaluate and discuss your results
6. Discuss the possible future extension

Above items are just examples. You can freely discuss your problem.

We collect two written reports for this project

Project proposal (Due 25 May 2018)

- **Format:** A written report (within 1 pages)
- **Language:**
  - Undergrad: Korean or English
  - Grad : English
- **Evaluations:** Will be credited 20% for the final project grades
- **Team Formation:**
  - Undergrad: one or up to two members
  - Grad : Individual report

Final report (Due 22 June 2018)

- **Format:** A written report (4~6 pages including all the figures and reference)
- **Language:**
  - Undergrad: Korean or English
  - Grad : English
- **Evaluations:** HW 20% (5% each), Midterm 25%, Project 40%
- **Team Formation:** Should be the same with proposal team

❖ **You can submit the report by an email (send the report to me before midnight)**