Lecture 1: Materials, April 11th

Course Overview, Optimization Models, Linear Programming

1. **Announcement**
   We are going to have a quiz on May 30th and an examination on July 11th.
   Please e-mail me at vorapong@is.s.u-tokyo.ac.jp before April 19th, if you cannot attend of them.

2. **Optimization Models, Linear Programming**
   See the following course notes by R. Fourer (Northwestern University)
   "Formulating an Optimization Model: An Introductory Example"
   (http://www.4er.org/CourseNotes/Book%20A/A-I.pdf)

3. **"Ryugaku no Susume" Event**
   There will be an event that summarize all study aboard program at Graduate School of IST right after this class. The venue is Eng 1 #15.

   Please consider joining the event if you are planning to study aboard.

4810-1183 Approximation and Online Algorithms with Application (Spring 2017)

Course Website: www.vorapong-sup.net/AO2017.html

Date/Time: Tuesday 14:55 - 16:40

Place: Sci 7 #102

Instructor: Vorapong Suppakitpaisarn
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Evaluation: Quiz 30% Final Exam 70%

Material:
1) David P. Williamson and David B. Shmoys. The Design of Approximation Algorithms. Cambridge University Press, 2010.
2) A. Fiat and G. J. Woeginer (editors). Online Algorithms: The State of the Art. Springer, 1998.

Schedule:

Date	Content
4/11	Course Overview, Optimization Models, Linear Programming
4/18	NP-Hardness
4/25	Approximation Algorithms: Knapsack Problem
5/2	Approximation Algorithms: Vertex Cover Problem
5/9	Approximation Algorithms: Clustering Problem
5/16	*No Class*
5/23	Approximation Algorithms: Recent Research Topics
5/30	**Quiz on Approximation Algorithms**
6/6	Inapproximability
6/13	Online Algorithms: Basic Definitions
6/20	Online Algorithms: Steiner Tree Problem
6/27	Online Algorithms: Load Balancing Problem
7/4	Online Algorithms: Recent Research Topics
7/11	**Final Examination**
7/18	Questions & Answers