HW 1: Reading and Executive Summary

Assignments are both handed out in class and are downloadable from the course's web site.

This first assignment has several goals: first, to ensure the formation of study-groups as soon as possible; second, to help you start a weekly procedure of "division of work", which typically culminates in the weekly group assignment (the readings can be divided among group members and then, in a joint meeting, each one can summarize one's material for the others); thirdly, to get you acquainted with our text-sources and web site; and finally, to help you start the course with the conviction that "Queues in Services are Here to Stay", in fact enough so as to deserve the attention that they are going to get. **All 3 parts of the assignment are due next week class.**

1. **Form a study group (3 students).**

2. **Read** Hall (**H**): Chapter 1, pages 1–18: Introduction.
   (There is one copy of H at the Engineering Library.)

   Read Fitzsimmons J. and M. (**FF**): Chapter 1, pages 1–18: The Role of Services in an Economy. (There is one copy at the Engineering Library.)

   Read "diagonally" the article "Innovation in Retail Banking", by Frei, Harker and Hunt, downloadable from http://ie.technion.ac.il/serveng2013S/Lectures/Retail.pdf
   Focus on pages 13-18 (PC Banking) and if time permits pages 18-28 (Re-Creating a Bank). Also read pages 33-37 (The "New Age Industrial Engineers", namely the integrators of Management, Science and Technology.)

   All reading materials are also available at the Technion Service engineering website http://ie.technion.ac.il/serveng2013S.

3. **Submit**, based on the readings, and your personal experience, a *typed* Executive Summary (**all future assignments will be typed, unless specified otherwise**), under the title

   "The Future of Queues in Service Systems".

   The first (cover) page should have the title. Below the title, on that same page, list the names of all group members, accompanied by the following details: Department, degree and year of study, concentration and fields of interests; relevant academic experience (Probability, Stochastic Processes, Programming Languages); work experience (past and present); an e.mail through which each member can be reached.
   The second page should start with an Introduction to the report and then, in bullet-point plus text format, the report itself – brief yet informative. It should be based on a variety of significant service examples, from both the public and private sectors, with **at least one from IE&M or Technion**. In these examples, queues (single or networks) either play, or should have played, an important role. For each example, assess whether and how long this importance is likely to prevail, what redesign or technology would take to eliminate queueing, etc. If possible, try to quantify the amount of waiting involved/saved (in hours/days/months/years, whatever is most appropriate). Make sure that you have at least one example (the more the merrier) of a service *network*, in which queues are either "here to stay" or they are amenable to creative reduction or elimination.