Notes for lecture 10

1. Date: June 13th. This lecture is based on Sections 6.3, 6.4, and 6.5 of Chapter 6 of the main textbook (see Chapter6.3-6.5.pdf).
2. Section 6.3 (see Lecture10.pdf) deals with the definition of unit step function and its application in the calculation of the direct and invers Laplace transforms (Theorems about translating along t and s –axes).
3. Section 6.4 (see Lecture10.pdf) is left for self-study. It presents examples of solving linear differential equations with right-hand-side represented by piece wise continuous functions (written down with the use of unit step functions).
4. Section 6.5 (see Lecture10.pdf) deals with the definition of the generalized impulse function (Dirac's delta function) and computation of its Laplace transform.
5. The deadline for submitting homework, Assignment 10 (refer to Assignment10.pdf) is June 20th, 13:00. Solutions to this assignment (refer to Assignment10_sol.pdf) will be uploaded to Resource Section on June 20th after the class.