Lecture 7 – 09/14/2015

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- Unit Step Response
  - Convolution the unit step with impulse response
  - Recovering impulse response from step response

- Linear Constant-Coefficient Differential Equations
  - Provide implicit specification of the system
  - We will focus on their use to describe causal LTI systems
  - Example 2.14
  - Homogeneous solution is often called natural system response
  - Condition of initial rest
  - Higher order linear constant-coefficient differential equations

- Linear Constant-Coefficient Difference Equations
  - Recursive equations
  - Finite impulse response (FIR) systems
  - Example 2.15
  - Infinite impulse response (IIR) systems

- Block Diagram Representation