

## Recitation #4

### Administrative Announcements

- Homework #1 due today

### Topics Covered

- Time invariance
- Causality
- Stability
- An example with LTI system and convolution: (Example 2.4 in book)

$$x[n] = \begin{cases} 1 & 0 \leq n \leq 4 \\ 0 & \text{otherwise} \end{cases} \quad \text{and} \quad h[n] = \begin{cases} \alpha^n & 0 \leq n \leq 6 \\ 0 & \text{otherwise} \end{cases}$$

Great things are not done by impulse, but by a series of small things brought together.

◇ *Vincent van Gogh* ◇

But a series of small things are impulses...