EE160 Winter 2014

Communication-System Fundamentals

When and Where: Tuesdays and Thursdays, 10:30AM–noon in Moore 070.

Instructor: Babak Hassibi, Moore 162B, `hassibi@systems`.
Office hours: noon-1pm on Tue., Thur. or by appointment.

Home page: `http://www.ee.caltech.edu/EE/Faculty/babak/courses/ee160.html`

Teaching Assistants:

- TBD

Text: S. Haykin, *Communication Systems*, 4th Ed., Wiley, 2001.

- Goal is to cover chapters 1-5 (perhaps also 6)

Grading: Homework 50% (due each Tuesday), Weekly 15 min quizzes 50% (each Thursday) (Late homework is not accepted.)

Prerequisites: EE111 (or equivalent), ACM/EE116 (or equivalent).
Goals:

1. To present the key laws and principles of communications systems (noise as a limiting factor, analog modulation schemes, sampling and digital transmission, performance measures, probability of error, signal-to-noise ratio, etc.).

2. To develop the skills and tools necessary to analyze communications systems.

3. To introduce some basic facts about random processes.

4. To set the stage for more advanced study of communications theory, information theory, error-correcting codes, wireless communications, optical communications, communications networks, statistical signal processing, stochastic control, etc.