Tentative Meeting January 19, 2010

Instructor:
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Text :
Design for Electrical and Computer Engineering: Theory, Concepts, and Practice, by Ralph M. Ford and Chris S. Coulston, McGraw-Hill Higher Education, ISBN: 978-0-07-338035-3.

Design Resources:
IEEE Guide for Developing System Requirements Specifications [IEEE Std. 1233-1998].
IEEE Code of Ethics.
Internet.

Class and Lab Schedule
TR 2:00 –2:50 pm in MSEC 101 (class lectures)
TR 3:00 – 5:00 pm in Workman117 (lab work).

Prerequisites
EE308 & EE308L (Microcontrollers), EE321& EE321L (Analog Electronics), EE333 (Electricity and Magnetism), EE341 (Signals and Linear Systems), and have declared electrical engineering as a major.

Course Overview:
This is a course in design methodology as applied to a particular problem in electrical engineering. Students will integrate their formal course work with the use of computer-aided tools to design, construct, evaluate, and document a prototype system.

Course Objectives:
1. Design and conduct experiments, and analyze and interpret data to characterize components.
2. Communicate outcomes through oral and written reports.
3. Develop skills to work effectively as a design team.
4. Become aware of professional obligations and codes of ethics.

Grading:

Statement of Work (paper copy and electronic version)	10%	2/11/10
Ethics Study	10%	2/18/10
Conceptual Design Presentation	10%	2/25/10
Preliminary Design Evaluation	10%	3/30/10
Preliminary Design Presentation	10%	4/6/10
Final Project Evaluation	10%	4/29/10
Final Project Presentation	10%	5/5/10
Group Members' Evaluation	10%	5/6/10
Final Report (paper copy and electronic version)	20%	5/11/10

Other Electrical and Computer Engineering Resources:
- EE Product Center, www.EEProductCenter.com. A website for locating electronic components and their manufacturers.
- Circuit Cellar, www.CircuitCellar.com. Companion website for the magazine is a great reference for designers.
- Datasheet Catalog, www.DatasheetCatalog.com. A datasheet source for electronic components and semiconductors.

- Dr. Dobbs, www.ddj.com. Companion website for the magazine is a resource for software developers.
- Electronic Design Magazine, www.EDNmag.com. Free magazine for electrical design engineers that provides information on the latest products.
- Compendex, www.engineeringvillage2.org. Provides indices to journal and conference papers in a broad scope of engineering fields.
- IEEE Xplore Electronic Library, www.ieee.org. Provides papers to all IEEE journals.