EE4280 Analog Integrated Circuits Analysis and Design II   2014 Spring Semester

1. Course Description:

This introductory course will cover the analysis and design of analog/mixed-signal integrated circuits for digital systems and for digital communications.

2. Prerequisite:

Electric Circuits, Electronics, Analog Integrated Circuits Analysis and Design I

3. Text books:

Design of Analog CMOS Integrated Circuits, B. Razavi, McGraw Hill, 2001.
Analog Integrated Circuit Design, D. Johns and K. Martin, Wiley, 1997.

4. References:

Fundamentals of Microelectronics, B. Razavi, Wiley, 2008
Analysis and Design of Analog Integrated Circuits, P. R. Gray, P. J. Hurst, S. H. Lewis, and R. G. Meyer, Wiley, 2001

5. Teaching Method:

Lecture: 3 hours
Outside study: 4 hours

6. Evaluation:

Homework:	50%	(no late homework)
Midterm:	25%	04/14/2014 10am – 1pm
Final:	25%	06/09/2014 10am – 1pm

7. Office Hours: Thursdays 4pm – 5pm at Delta Building R908

8. Class Webpage: NTHU e-learning system (http://lms.nthu.edu.tw)

9. Teaching Assistants:

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10. Tentative Syllabus:

- Noise
- Nonlinearity and Mismatch
- Oscillators
- Phase-locked loops
- Switches
- Switched-capacitor circuits
- Comparators
- Data converters

- Return your user information (available on class webpage) by 03/03/2014 10am.
- Tutorials for HSpice, Lakers, and Spectre are available on class webpage.
- Please contact TAs for EE workstation account application.