ECE 626
ANALOG CMOS INTEGRATED CIRCUIT DESIGN
WINTER 2016

Lectures: MWF 11:00 -11:50 am, in STAG 211.

Lecturer: Gabor C. Temes, Professor, KEC 3091 temes@eeecs.oregonstate.edu
Office hours: MW 2 - 3 pm, or by appointment.

Prerequisites: ECE 464 and 520, or equivalent background.

URL: http://classes.engr.oregonstate.edu/eecs/winter2016/ece626/

or


Course content: This course will discuss the circuitry, algorithms and architectures used in analog and mixed-mode CMOS integrated circuits. The discussion of the following topics is planned:

1. Sample-and-hold stages.
2. Continuous-time filters based on Gm-C and MOSFET-C schemes; self-tuning techniques.
4. Non-ideal effects in SC circuits, and correction techniques; low-voltage SC design.
5. Noise in analog circuits.
6. CMOS data converters: Nyquist-rate data converter fundamentals; CMOS implementation of DACs and ADCs.
7. Oversampling (delta-sigma) data converters: fundamentals and implementations.


Final examination: TBA. Take-home project planned.