

# ECE75201 Analog Integrated System Design

Fall 2015

**Instructor:** Prof. Seong-Jin Kim, School of ECE  
(O) EB2 401-1 (M) [kimsj@unist.ac.kr](mailto:kimsj@unist.ac.kr) (T) 217-2115

**Classroom:** EB2 411

**Class hours:** 2:30~3:45pm on Tuesday and Thursday

**Office hours:** 10:30~11:30am on Tuesday

**Textbook:** Class material

**References:** Franco Maloberti, Data Converters, Springer

Marcel J.M. Pelgrom, Analog-to-Digital Conversion, Springer

Bang-Sup Song, Micro CMOS Design, CRC Press

Behzad Razavi, Design of Analog CMOS Integrated Circuits, McGRAW-HILL

**Purpose:** Study on various architectures of ADC and DAC with build blocks

**Grading:** Attendance 10%, Homework 15%, Paper review 30%, Term project 45%

Review papers related to data converters will be given to each student.

Students should pursue a design project related to analog systems.

## Tentative Course Schedule

Week 1:	Introduction
Week 2:	Switched-capacitor circuits
Week 3:	Sample and hold
Week 4, 5:	Digital-to-Analog converters
Week 6, 7, 8:	Nyquist-rate Analog-to-Digital converters
Week 9, 10:	Review session of data converter papers
Week 11, 12:	Oversampling data converters
Week 13, 14:	Advanced topics
Week 15, 16:	Project presentation