

Advance Analog IC Design

The course will consist of a series of lectures on topics leading to advanced analog IC design. Several design exercises are included. All lectures are in PowerPoint format. The lecture notes are taken from the book "Analog Design Essentials (Springer), which is handed out to the participants.

DAY 1

- Comparison of models of MOST and bipolar transistors
- Analysis of amplifying building blocks
- Differential voltage and current amplifiers
- Noise analysis of elementary stages

DAY 2

- Stability of multi-stage operational amplifiers
- Low-power design of operational amplifiers
- Most-used opamp configurations
- Fully-differential operational amplifiers : design examples

DAY 3

- Offset and CMRR; random and systematic
- Class AB driver amplifiers
- Low-power Sigma-Delta converters
- Design of low-power oscillators

Trainer	Dr. Willy Sansen
Date / Time	9-11 th Jun 2010, 9Am- 5PM
Cost Fee	S\$3000 Discount of S\$400 for registration before 1 st Apr 2010 Discount of S\$200 for registration before 1 st May 2010
Venue	* PSB Academy Singapore

* The venue is subject to change depends on its availability.



Willy Sansen has received the MSc degree in Electrical Engineering from the Katholieke Universiteit Leuven in 1967 and the PhD degree in Electronics from the University of California, Berkeley in 1972.

He has been a full professor at the 2.U.Leuven since 1980. During the period 1984-1990 he was the head of the Electrical Engineering Department. Since 1984 he has headed the ESAT-MICAS laboratory on analog design, which counts about sixty members and which is mainly active in research projects with industry. He is a fellow of the IEEE.

Prof.Sansen is a member of several editorial and program committees of journals and conferences. He is cofounder and organizer of the workshops on Advances in Analog Circuit Design (AACD) in Europe. He is a member of the executive and program committees of the IEEE ISSCC conference. He was program chair of the ISSCC-2002 conference. He is president of the IEEE Solid-State Circuits Society from January 2008 on.

He has been involved in design automation and in numerous analog integrated circuit designs for telecommunications, consumer electronics, medical applications and sensors. He has been supervisor of sixtyfive PhD theses in these fields. He has authored and coauthored more than 660 papers in international journals and conference proceedings and fifteen books among which "Analog Design Essentials" (Springer 2006).