Mixed-Signal IC Design

Live Course @ EPFL, Lausanne, Switzerland
AUGUST 28 - SEPTEMBER 1, 2023

MONDAY, August 28

08:30 - 10:00 am	The Analog-Digital Trade-off - The Impact of Technology Scaling	Jan Rabaey
10:30 - 12:00 am	ULP Mixed-Signal Design for IoT and Weareable Devices - Sensing and Data Acquisition	Jan Rabaey
01:30 - 03:00 pm	ULP Mixed-Signal Design for IoT and Weareable Devices - Communication and Computation	Jan Rabaey
03:30 - 05:00 pm	ULP Mixed-Signal Design for IoT and Weareable Devices - Energy Harvesting, Storage and Conversion	Jan Rabaey

TUESDAY, August 29

08:30 - 10:00 am	Evolution in Digital CMOS Technology and its impact on Design	Jan Rabaey
10:30 - 12:00 am	Design Methodolgy for Systems-on-a-Chip	Jan Rabaey
01:30 - 05:00 pm	Time-Varying Circuits in Mixed-Signal Design (Parts 1 & 2)	Shanthi Pavan

WEDNESDAY, August 30

08:30 - 10:00 am	Offset and CMRR: Random and Systematic	Willy Sansen
10:30 - 12:00 am	Fully-Differential Amplifiers	Willy Sansen
01:30 - 03:00 pm	Interference Effects and PSRR	Michiel Steyaert
03:30 - 05:00 pm	Circuit Design for EMC	Michiel Steyaert

THURSDAY, August 31

08:30 - 12:00 am	Modeling and Simulation, Design Methodology	Pavan Hanumolu
01:30 - 03:00 pm	Practical Techniques of Frequency Compensation	Vadim Ivanov
03:30 - 05:00 pm	Power Management in Efficient Mixed-Signal Integrated Systems	Vadim Ivanov

FRIDAY, September 1

08:30 - 12:00 am	Noise Coupling in Mixed-Mode ICs: Mechanisms, Simulation, Measurement	Tim Schmerbeck
01:30 - 03:00 pm	Noise Coupling in Mixed-Mode ICs: Design Strategy/Hardware Example	Tim Schmerbeck
03:30 - 05:00 pm	Design for (ESD) Robustness in Silicon ICs	Tim Schmerbeck