Mixed-Signal IC Design

ON-LINE CLASS by MS TEAMS

SEPTEMBER 5-16, 2022

WEEK 1	**September 5-9**
WEEK 2	**September 12-16**

	Central European Time **CET (Lausanne)**	Eastern Standard Time **EST (New York)**	Pacific Standard Time **PST (California)**	India Standard Time **IST (India)**
Lecture 1	4:00-5:30 pm	10:00-11:30 am	7:00-8:30 am	7:30-9:00 pm
Lecture 2	6:00-7:30 pm	12:00 am -1:30 pm	9:00-10:30 am	9:30-11:00 pm

WEEK 1	**Lecture**		
Monday, Sept. 5	1	The Analog-Digital Trade-off - The Impact of Technology Scaling	Jan Rabaey
	2	ULP Mixed-Signal Design for IoT and Weareable Devices - Sensing and Data Acquisition	Jan Rabaey
Tuesday, Sept. 6	1	ULP Mixed-Signal Design for IoT and Weareable Devices - Communication and Computation	Jan Rabaey
	2	ULP Mixed-Signal Design for IoT and Weareable Devices - Energy Harvesting, Storage and Conversion	Jan Rabaey
Wednesday, Sept. 7	1&2	Future Trends in Digital Methodolgy	Jan Rabaey
Thursday, Sept. 8	1&2	Digital Calibration of Analog Front-Ends and Analog-to-Information Conversion	Marian Verhelst
Friday, Sept. 9	1&2	Noise Coupling in Mixed-Mode ICs: Mechanisms, Simulation, Measurement	Tim Schmerbeck
WEEK 2	**Lecture**		
Monday, Sept. 12	1	Noise Coupling in Mixed-Mode ICs: Design Strategy/Hardware Example	Tim Schmerbeck
	2	Design for (ESD) Robustness in Silicon ICs	Tim Schmerbeck
Tuesday, Sept. 13	1&2	Modeling and Simulation, Design Methodology	Pavan Hanumolu
Wednesday, Sept. 14	1	Offset and CMRR: Random and Systematic	Willy Sansen
	2	Fully-Differential Amplifiers	Willy Sansen
Thursday, Sept. 15	1	Interference Effects and PSRR	Michiel Steyaert
	2	Circuit Design for EMC	Michiel Steyaert
Friday, Sept. 16	1	Practical Techniques of Frequency Compensation	Vadim Ivanov