Remarque
Next time : September 21st 2020 - October 2nd 2020

Summary

Content
Day 1:
- MOS Transistor Modeling for Low-Voltage and Low-Power Circuit Design
- Basic Low-Power, Low-Voltage Circuit Techniques
- Differential Amplifying Blocks with Positive Feedback
Day 2:
- Noise Performance of Elementary Transistor Stages
- Stability of Operational Amplifiers
- Systematic Design of Low-Power Operational Amplifiers
- Important Opamp Configurations
Day 3:
- Important Opamp Configurations
- Bandgap and Current Reference Circuits
- Distortion in Elementary Transistor Circuits
- Low-Power Continuous-Time Filters
Day 4:
- Matching of MOS Transistors in Deep-Submicron
- Micropower ADCs
Day 5:
- Layout Considerations in Mixed-Signal Circuit Design
- Ultra-Low Voltage Analog Circuit Design

Keywords
Low-Voltage Analog, Op-Amps, Sigma-Delta Converters, Switched-Capacitor

Learning Prerequisites
Recommended courses
Analog IC Design

Resources
Ressources en bibliothèque
• Understanding Delta-Sigma Data Converters / Pavan
• Understanding delta-sigma data converters / Schreier
• Analog-to-Digital Conversion / Pelgrom
• Charge-Based MOS Transistor Modeling: The EKV Model for Low-Power and RF IC Design / Enz
• Methodology for the Digital Calibration of Analog Circuits & Systems / Kayal
• All-Digital Frequency Synthesizer in Deep-Submicron CMOS / Staszewski
• Structured Analog CMOS Design / Kayal
• Analog Design Essentials / Sansen
• RF analog impairments modeling for communication systems simulation: application to OFDM-based transceivers / Smaini