

Course Description:

Emphasis on integration of analog signal processing techniques in monolithic IC technology. Continuous active filter design. MOS IC technology. OP amp design. Basic sampled data concepts; Z-transform analysis, switched capacitor filters. Noise aspects. Bipolar technology: radio frequency IC design.

Course Topics:

Suggested knowledge for this course: basics of MOSFET operation, some understanding of integrated circuit technology, understanding of circuit simulation, basics of logic, binary number systems, digital design. The following topics will be covered during the course lectures.

- Analog signal processing.
- Continuous active filter design.
- CMOS, Bipolar, BiCMOS IC technology.
- Operational amplifier design.
- Switched capacitor filters.
- Noise in analog circuitry.