



**7. Topics and approximate lecture hours:**

- Analog systems vs. digital systems (2 lectures)
- Analog switches; application to sample-and-hold circuits (5 lectures)
- Analog to digital converter (2 lectures)
- Digital to analog converter (1 lecture)
- Simulation of a conversion chain using Proteus (1 lecture)
- Digital electronics applications (4 lectures)
- Introduction to digital integrated circuits (3 lectures)
- Digital integrated circuits using saturated bipolar transistors (4 lectures)
- Digital integrated circuits using unsaturated bipolar transistors (2 lectures)
- Digital integrated circuits using MOS transistors (3 lectures)
- Interfacing digital integrated circuits (1 lecture)
- Applications on the different types of logic ICs (4 lectures)
- Memory; applications to memories (3 lectures)