UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Laboratory of Electronics II

2122-1-F1701Q146

Aims

Design capability for an analog MOS integrated circuit

Contents

The course consists in the full design of an analog CMOS circuit by means of the simulation software Cadence

Detailed program

The course is mainly based on laboratory sessions, using Cadence (the leading software for analog/mixed-signal integrated circuits design). The main purpose of the laboratory is to understand and learn the most important aspects of the design/simulation environment. The working groups will be composed by two students.
The main topics of this part of the course are:

1) Creating a schematic and symbol.
2) Simulating simple analog circuits using Analog Design Environment.
3) Running process/voltage/temperature simulations.
4) Running Montecarlo simulations.
The reference analog circuits used for design and simulations are: current mirror, differential amplifier, 1st order Analog Filter.

Prerequisites

Bachelor in physics or equivalent.

Teaching form

Preferably lessons

However, in consideration of the present laws in occasions of the Covid-19 emergency, lectures will be held asynchronously remotely with some synchronous remote events

Textbook and teaching resource

Lecture notes provided by the instructor

Semester

second semester

Assessment method

Oral exam

In case of limitations due to Covid-19 pandemic, exams will be online using WebEx. A dedicated news will be posted on the e-learning page of the course with a public link to freely access the virtual room where the exam will take place.

Office hours

Discussions with prof. Baschirotto will take place in person or using the WebEx upon appointment (contact via mail andrea.baschirotto@unimib.it).