UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Laboratory of Electronics I

2122-1-F1701Q144

Aims

Analysis and design of analog integrated circuits in CMOS technology by using CAD software CADENCE.

Contents

Experiments of electronics

Detailed program

The course deals with the analysis and the design of analog integrated circuits using CAD software Cadence performed by groups of two students. The laboratory activity is introduced by lectures on; CMOS technology, analog switches, current mirrors, currente and voltage references, gain stages, operational amplifiers. Example of experience: Design of a current mirrors, of a bandgap reference, of on operational amplifier with single-stage or two-stages, of an 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

References:

A. Baschirotto “Dispense di Microelettronica”

Gray, Hurst, Lewis, Meyer, “Analysis and design on analog integrated circuits”

F. Maloberti, “Analog designfor CMOS VLSI systems”

B. Razavi, “Design of analog integrated circuits”

Semester

1st 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).