

Circuit modelling of PCB parasitic elements

The simulation laboratory aims to introduce students to the use of a commercial software widely used in industry for obtaining circuit models of the parasitic elements of device package and board.

The common approach based on the graphic interface will be first introduced. The simulation of PCB developed with other CAD software will be discussed. After that, advanced approaches based on non-GUI simulation, preparatory for boards optimal design, will be presented.

The course is organized into 6 meetings of 3 hours.

A final event, in which students present the results of their activities, will conclude the course.

Outline

1. Introduction to basics and graphic interface of Q3D simulator. (3H)
2. Solution setup and simulation: Spice netlist extraction. (3H)
3. Importing and simulating PCB developed with external CAD. (3H)
4. From graphic interface to non-GUI simulation. (6H)
5. Group activity and final event. (3H)

Classroom: P4

Date	Duration	Time
11/11/2024	3H	14.00 – 17.00
	3H	
	3H	
	3H	
	3H	
	3H	

Prof. Santi Agatino Rizzo will hold the lessons.

Before the first lesson, the students must contact the professor (santi.rizzo@unict.it) for Q3D installation and license information.