Programme of "Integrita' del Segnale": "Signal Integrity"		
• Code: I0285 • Compulsory • 2nd cycle; 1st year; 2nd semester		
Number of ECTS credits: 6 (workload is 150 hours; 1 credit = 25 hours)		
Teacher: **Prof. Antonio Orlandi**		
1	**Course objectives**	The goal of this course is to provide the concepts of Signal and Power Integrity for the design of digital circuits
2	**Course content and Learning outcomes (Dublin descriptors)**	Topics of the module include: **Transmission line theory** **Crosstalk** **PCB Design** **Power Integrity theory** **Power Distribution network PI design** **PCB Technology** **Connectors** On successful completion of this module, the student should - have profound **knowledge** of signal and power integrity - have **knowledge and understanding** of the basic principles for transmission of the digital signals along interconnects - **understand and explain** the physical mechanisms governing the signal and power integrity phenomena - **demonstrate skill** in problem solving and **ability** to solve signal and power integrity problems - demonstrate **capacity** for reading and understand other texts on related topics.
3	**Prerequisites and learning activities**	The student must know the main contents of the courses of Electronic and Electromagnetic Fields
4	**Teaching methods and language**	Lectures, exercises, home work, **Language:** Italian / English **Ref. Text books** Notes of the Teacher S.Hall, G.Hall, J.McHall, *High-Speed Digital System Design*, wiley Interscience, USA, 2000 B. Archambeault, *PCB Design for Real-World EMI Control*, Kluwer, USA, 2002
5	**Assessment methods and criteria**	Written and oral exam.