Programmable devices A

<u>Finalità</u>
The course provides fundamentals of digital system computer-aided design and fast prototyping. It will include pratical design experinces using suitable CAD tools.

<u>Programma</u>
Architecture and design of a embedded digital system.
A survey of the main devices used in the digital systems.
Programmable logic FPGA: technology and features.
The hardware description languages: the VHDL.
The CAD design flow: synthesis and verification methodology.
FPGA oriented methods of VHDL design.

<u>Attività d'esercitazione</u>
The course will include CAD tools sessions and the implementation of a simple digital system design.

<u>Modalità d'esame</u>
The examination is devided in an oral and a short written session.

<u>Testi consigliati</u>
The VHDL Cookbook - on the "Download" section of the site: http://ee.unipr.it/~gmatrell/mypage/