

Title Progettazione di antenne Antennas Manufacture	Degree Corso di Laurea Magistrale in Ingegneria Elettronica (DM 270/04)	Year 1	Teaching Period 2	Credits 6
Teacher: Michele Midrio		Academic year: 2014/2015		

Objectives:

The course aims at providing advanced concept for the design and comprehension of working principle of linear antennas, planar antennas and volume antennas. Theoretical work will be completed by use of numerical codes for high-frequency antennas, as well as by measurement of antennas that students will manufacture in our laboratory.

Acquired skills:

- Comprehension of terms and parameters in use for the study of antennas
- Design and optimization of thin linear antennas, Yagi antennas, and log-periodic antennas
- Use of software for the design of bulk and printed antennas
- Design, manufacturing and characterization of Yagi and log-periodic antennas, either bulk and printed

Lectures and exercises		hours
Topics	Specific contents	
Linear antennas	Current in a linear antenna. Input impedance. Coupling among linear antennas. Mutual impedance.	8
Yagi and log-periodic antennas	Currents in Yagi and log-periodic antennas. Rules for the design.	6
Printed antennas	Current in a metallic-dielectric structure. Rules of design of printed antennas via numerical simulations.	6
Total hours for lectures and exercises		20
for exercises only		
Further educational activities		hours
Labs		40
Tutorials / Seminars		
Workshops		
Guided tours		
Total hours for further educational activities		40
Total hours		60

Type of exam:

Oral, Lab test

References:

Notes from lectures