## **AEROSPACE ENGINEERING (LM52)**

(Brindisi - Università degli Studi)

Teaching ROBUST CONTROL AND FLIGHT CONTROL (MOD 1) C.I.		Teaching in italian ROBUST CONTROL AND FLIGHT CONTROL (MOD 1) C.I. Teaching ROBUST CONTROL AND FLIGHT CONTROL (MOD 1) C.I. SSD code ING-INF/04	Course year 1 Language INGLESE Curriculum CURRICULUM AEROSPACE SYSTEMS
		Course type Laurea Magistrale	Semester Primo-Semestre
		<b>Credits</b> 6.0	<b>Exam type</b> Orale
		<b>Teaching hours</b> Ore-Attivita-frontale: 54.0	Assessment
		For enrolled in 2020/2021	<b>Course timetable</b>
		Taught in 2020/2021	
BRIEF COURSE DESCRIPTION	The following topics are introduced and analyzed: • state-space modeling; • nonlinear systems theory; • Lyapunov control theory; • Sliding mode control		
	<ul> <li>Linear Matrix Inequalities applied to Linear Parameter-Varying systems control.</li> </ul>		
REQUIREMENTS	Basics in Automatic Control and Control Systems Theory		
COURSE AIMS	The objective of the course of Robust Control and Flight Control is to provide in-depth knowledge of the state-of-the-art control methodologies for guaranteeing robustness. The course is organized to face the control topics from an aerospace point of view with practical examples and case studies.		
TEACHING METHODOLOGY	The course is delivered with lectures and lab hours.		
ASSESSMENT TYPE	The exam is oral. The exam starts with a discussion of the project work carried out during the semester to assess the level of knowledge of the student about the Flight Control techniques analyzed during the course. The oral exam also includes the discussion of more general aspects regarding the Robust Control methodologies encountered during the lectures.		



## REFERENCE TEXT BOOKS

Lecture notes are sufficient to learn the topics faced during the course. However, further information can be retrieved from:

- Stability of Aircraft Systems: Introduction to Classical Feedback Control, Langton
- Nonlinear Systems, Khalil.

