



Course Syllabus for
 DAUSY National Ph.D. Program in Autonomous Systems
 (year 2022-23)

Course title	Optimal control for Climate change and air quality
Scientific Discipline Sector	ING-INF/04
Hours of instruction	10 hours
CFU	1 CFU
Semester, period	Second semester, march-april 2023
Goal	The course will address the fundamentals of the modelling and control of real-world systems, presenting the application of control theory to climate change and air quality. Each lesson shall consist in lecture and numerical examples.
Syllabus	<ul style="list-style-type: none"> • Modelling and control real-world systems: applications and challenges. • Fundamentals of air quality and climate change control: objectives and constraints. • Introduction to the application of optimization algorithm in control • Application, examples and future
Bibliography	Slides and support material from lecturer.
Examination method	Final examination in class by written test OR individual work (presentation) on a theme to be agreed with the professor (deadline June 30).