

PH.D. IN AEROSPACE ENGINEERING
COURSE III LEVEL
AN INTRODUCTION TO DRONE
MODELLING AND OPTIMAL
CONTROL



SPEAKER



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PROGRAM

Abstract

The course "An introduction to drone modelling and optimal control" will focus on Guidance Navigation and Control topics, and particularly Radar Applications for Health Safety.

Course Plan

- Nov. 25th, 14:00-16:00: From rigid-body to drone dynamics.
- Nov. 27th, 09:00-12:30: Optimal control of a simplified drone model and Nonlinear control and trajectory tracking.
- Nov. 28th, 09:00-11:30: Advanced planning and control methods examples.

BIO

Bruno Guerreiro is currently a **Tenured Assistant Professor** at the Faculty of Science and Technology (FCT) and researcher at CTS/UNINOVA, **Universidade NOVA de Lisboa (UNL)**, and also a researcher with the Institute for Systems and Robotics (ISR), Dynamic Systems and Ocean Robotics group (DSORg), in Lisbon, Portugal.

His research interests include sensor-based SLAM, sensor-based control of helicopters relative to infrastructures, nonlinear MPC for helicopters, laser automatic calibration, and helicopter dynamic models and simulation.



Nov. 25th, Nov. 27th, Nov. 28th,



Sala Ferrari, II floor, DIMEAS – Politecnico di Torino