

AEROSPACE ENGINEERING

MUR DM 118 - Multidisciplinary Optimisation to Reduce the Environmental Impact of Urban Air Mobility Vehicles

Funded By	MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584] Dipartimento DIMEAS
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Context of the research activity	<p>The topic of the reasearch is an electric vertical take-off and landing aircraft based on the ThrustPod technology patented by the Politecnico di Torino. Aircraft aerodynamics and controls (both for the vertical and the horizontal phases) are designed together to optimise the noise emissions and the mission performance.</p> <p>Progetto finanziato nell'ambito del PNRR – DM 118/2023 - CUP E14D23001660006</p>
Objectives	<p>The reasearch aims to investigate and implement the most promising techniques to optimise the aircraft aerodynamics and control strategies to reduce the noise and improve the performance of an electric vertical take-off and landing aircraft based on the ThrustPod technology patented by the Politecnico di Torino. From realistic missions, the research also aims to optimise the flight routes for urban and sub-urban operations.</p>
Skills and competencies for the development of the activity	Aerodynamics, Flight Dynamics, Controls and Simulation