Luca Mazzotta

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About me:
PhD Student in Energy and Environment at DIMA (Dipartimento di Ingegneria Meccanica e Aerospaziale) in Rome in collaboration with Baker Hughes company. Research related to combustion of hydrogen and other alternative green fuels like ammonia. Chasing sustainability and attracted by design and management of renewable technologies, focus on gas turbines combustors, analysing CFD codes, to optimize thermal performance, emissions and efficiency.

EDUCATION AND TRAINING

01/01/2022 – CURRENT – Rome, Italy
PHD STUDENT – Sapienza University of Rome - Baker Hughes

- Research project related to the combustion of hydrogen and alternative fuels like ammonia in gas turbine combustors: implementation on CFD codes and validation with experimental data
- Research in collaboration with Baker Hughes company

Address Via Eudossiana, 18, Rome, Italy | **Field of study** Combustion of Alternative Fuels |

Level in EQF EQF level 8

01/10/2019 – 25/10/2021 – Rome, Italy
MASTER OF SCIENCE: ENERGY ENGINEERING – Sapienza University of Rome

- In-depth knowledge of all major renewable technologies
- Highly complex planning and development activities with multidisciplinary technical skill involving economic-organizational and management aspects are carried out
- Control and management of different mechanical, electric and thermal system of plants powered by renewable energy sources, fossil and nuclear fuel

Address Via Eudossiana, 18, Rome, Italy | **Field of study** Energy Engineering | **Final grade** 110/110 |

Level in EQF EQF level 7 |

Thesis Numerical study of hydrogen/air combustion and thermal performance in a swirling non-premixed annular micro-combustor

01/09/2014 – 01/03/2019 – Rome, Italy
BACHELOR OF SCIENCE - ENERGY ENGINEERING – Sapienza University of Rome

Address Via Eudossiana, 18, Rome, Italy | **Field of study** Energy Engineering |

Level in EQF EQF level 6 |

Thesis Energy analysis of the technologies of the MAAT project (Multibody Advanced Airship for transport)

01/01/2018 – 01/07/2018
INTERNSHIP – ENEL SpA

WORK EXPERIENCE

01/09/2019 – 31/08/2022 – Rome, Italy
ELECTRIC SYSTEM OFFICER – FAST CHARGE - SAPIENZA UNIVERSITY OF ROME

- Designed, built, tested and raced single seat Formula SAE race car internationally
- Designed battery pack of the car with 18650 cells technology
- Developed BMS Battery Management System design and tested
- Developed COMSOL vehicle thermal and electric simulation tools to aid vehicle design
- Developed car wiring and harness using Zuken and EasyEDA electric circuit software

Business or Sector Professional, scientific and technical activities

PUBLICATIONS

Analysis of the NOx emissions deriving from hydrogen/air combustion in a swirling non-premixed annular micro-combustor

L. Mazzotta, O. Palone, F. Di Gruttola, G.G. Gagliardi, D. Borello
2022
Proceedings of ASME Turbo Expo 2022, paper no. GT2022-81131

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

CONFERENCES AND SEMINARS

12/06/2022 – 17/06/2022 – Rotterdam
ASME Turbo Expo

DIGITAL SKILLS

My Digital Skills

ANSYS workbench, ANSYS fluent | ANSYS Chemkin | COSMOL Multiphysics 5.0 | Matlab and Matlab Simulink | AutoCAD | Rhinoceros Modellazione 3D | Zuken E3 | Microsoft Word | LaTex | Microsoft Office