PERSONAL INFORMATION

Marco Dreoni

✉ marco.dreoni@outlook.com

in linkedin.com/in/marcodreoni

Sex Male | Nationality Italian

Passionate of science and warmly involved in the environment preservation.
I wish to contribute to the development of renewable energies and other sustainable solutions.
Goal-oriented, flexible, continuously learning.

EDUCATION AND WORK EXPERIENCE

01/01/2022–Present   **PhD, Industrial Engineering**   EQF level 8

Department of Industrial Engineering - Università degli Studi di Firenze, Firenze (Italy)

Energy and Innovative Industrial and Environmental Technologies:
"Numerical and Experimental Analysis for Next-generation Electrolyzers".
CFD modelling: ANSYS Fluent. In collaboration with McPhy.

15/10/2023-Present   **Internship at McPhy Italy, San Miniato (Italy)**

Period of work in close contact with the mechanical engineers and experts in the electrolyzer field for the PhD research. Practice at test-bench for experimental purposes.

01/07/2023–15/10/2023   **Internship at McPhy Germany, Wildau (Germany)**

Period of work with R&D department for the PhD research. CFD activities for device optimization.

01/11/2020–31/12/2021   **Plant Engineer**

Sani Ingegneria Srl, Via Santa Reparata, 40, Firenze

Design of technical plants (HVAC) for pharmaceutical industries. Use of Autocad. Teamwork.

09/04/2018–02/10/2020   **Master of Science, Energy Engineering (110/110 with honors)**   EQF level 7

Università degli Studi di Firenze, Firenze (Italy)

Energy (Power-plant design, ICE design, refrigeration systems, air- treatment fundamentals, fuel cells), *Renewable Energy* (wind, CSP, photovoltaic, geothermal plants, biomass), *Mechanical Design* (finite element analysis, CFD, rotating machine design).

Thesis title: "Multibody Aeroelastic Simulation of a H-Darrieus Vertical-Axis Wind Turbine"

01/02/2020–21/06/2020   **University research intern**

Delft University of Technology - TU Delft, Delft (The Netherlands)

Erasmus + Traineeship

Research in the fields of energy & aero-elasticity. Validation and development of innovative aero-elastic models for wind turbine simulation in collaboration with TU Delft research group.

- Development of a multibody model to evaluate fatigue loading on wind turbines using Siemens Simcenter software program and Python codes

15/09/2014–09/04/2018   **Bachelor Degree, Mechanical Engineering (106/110)**   EQF level 6

Università degli Studi di Firenze, Firenze (Italy)

Basics of mechanics, physics, advanced calculus, differential equations, inorganic chemistry.

Thesis title: "Performance Analysis on Vertical-Axis Wind Turbine Blades with Adaptable Thickness"

PERSONAL SKILLS

Mother tongue(s) Italian
Other Language(s) English (C1), Spanish (B2), French (B1), German (A2)

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Independent user	Independent user	Independent user

Digital skills - Self-assessment grid

- *Programming languages:* Python, C/C++
- *CFD software:* Ansys Fluent
- *FEM software:* Solidworks
- *Other:* Matlab, Microsoft Office (Excel, PPT, Word), LaTeX, Windows, AutoCAD

Other skills

- *Problem solving:* good capacity to analyze problems.
- *Plan/Organize:* plan strategies suitable to achieve goals & milestones.
- *Achieve goals:* setting out ambitious but achievable goals has helped me complete my studies quickly.
- *Critical thinking:* during my time in university I have learned to approach a problem looking for areas of improvement.
- *Cognitive flexibility:* good capacity to look at problems from multiple perspectives, my term abroad has helped me with this independence: able to work proficiently and independently reach milestones as demonstrated in my traineeship & university projects.
- *Team work:* skill developed in university projects and perfected during the period spent as HVAC engineer.

Driving licence B

ADDITIONAL INFORMATION

Certifications Italian PE exam - qualification to practice the Engineering profession

Privacy consent I authorise the handling of my personal data pursuant to the Italian Personal Data Protection Code – Legislative Decree n. 196/2003

10/01/2024, Florence