

## Federico Silenzi

### DESIRED OCCUPATION

### Energy Efficiency, Renewables

#### PROFESSIONAL EXPERIENCE June 2022 - Today

#### Istituto Nazionale Fisica Nucleare – INFN sez. Genova

Via Dodecanneso 33, Genova

- Data analysis for the Inner Tracker (ITk) cooling system of the ATLAS experiment at CERN (Matlab), Thermal Quality Control Tests on the bare Half Rings supports of the ATLAS Inner Tracker cooling system

Cooling Field

May 2021 - April 2022

#### University of Genova - DIME

Via all'Opera Pia 15a, Genova

- Research activity in innovative greenhouse heating systems using microwaves – Project “Mezzi Fisici”.

Study and development of a basal heating system using waste heat from a CHP generator. The system is part of a working demonstrator equipped with a microwave emitter to heat plants and to sterilize the cultivation soil. (MS Word, MS Excel, Sketchup, Openstudio, EnergyPlus)

Energy Field

September 2023 – June 2024

#### University of Genova - Scuola politecnica di Ingegneria e Architettura

Via all'Opera Pia 15a, Genova

Tutoring course in “Applied Physics” for the bachelor course in Civil Engineering held by Prof. Corrado Schenone

Didactic Activity

September 2022 – June 2023

#### University of Genova - Scuola politecnica di Ingegneria e Architettura

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Didactic Activity

March 2020 - February 2021

#### University di Genoa – DIME

Via all'Opera Pia 15a, Genova

- Research activity in innovative LNG applications – European Project SIGNAL.

Drafting of technical reports, development of dynamic models of energy recover system to exploit regasification exergy in port areas (MS Word, MS Excel, Honeywell Unisim)

Energy Field

November 2016 – December  
2018

#### Process Engineer C/O Demont s.r.l.

Zona Industriale, Località Braia, Millesimo (Sv)

- Assistant in dimensioning of HVAC (Heating, Ventilation, Air Conditioning) systems for naval

applications.

- Study, Enhancement and Normative Update of the calculation algorithms for dimensioning of HVAC systems (MS Excel).
- Draft and Check of Technical Documents for Customers and Suppliers (MS Word, MS Excel, AutoCAD).

Energy Field

November 2016 – November 2019

### PhD C/O Department of Mechanical, Energy, Management and Transportation Engineering (DIME - TEC)

Via all'Opera Pia 15a, Genova

- Study of mathematical and numerical models for geothermic energy systems (Matlab).
- Dynamic energetic simulation of buildings (Sketch-up, Openstudio, Energy Plus).

Energy Field

January 2016 – July 2016

### Apprenticeship for Master Thesis Project

Toshiba T&D Europe, via De Marinis 1, 9° piano, Genova Sampierdarena

- Dynamic energetic simulation of buildings in the framework of the European Project A2PBEER (Affordable and Adaptable Public Building through Energy Efficient Retrofitting), Case Study: San Martino Hospital – Monoblocco Pavilion (Sketch-up, Openstudio, Energy Plus)
- Collaborator for Rina Consulting (formerly D'Appolonia S.p.A.) for gathering, elaboration and organisation of data requested for the final report of the A2PBEER project. (MS Word, MS Excel)

Energy Field

September 2012-December 2012

### Formative Apprenticeship

C/O B.S. Franco Martini – Serra Riccò - Genova

- Hydrocarbons polluted Soil Cleaning with bio-physical and mechanical techniques.

Environmental Field

## EDUCATION AND TRAINING

November 2016 – March 2020

### Doctor Of Philosophy in Mechanical, Energy and Management Engineering - Technical Physics Curriculum

EQF 8

Via all'Opera Pia 15a, Genova

Thesis: "Thermal and dynamic analysis of a nearly zero-energy building equipped with geothermal and solar energy systems"

The PhD studies were focused on dynamic energy modelling of high efficiency building (NZEB and hi-tec greenhouses) and the validation of a semi-numerical method to simulate the thermal response of ground when unconventional shaped ground heat exchangers are considered. The experimental laboratory activity was based on the development and test of a prototype mobile bench for assessing thermal solar panels efficiency (compliant with Iso 9806-1 and EN 12975-2:2006 standards).

March 2021

### Qualification to practice as Graduate Agrotechnician (100/100)

Collegio Nazionale degli Agrotecnici e degli Agrotecnici Laureati

Professional qualification valid in Italy and in Europe (Directive 2005/36/CE)

September 2013 – July 2016

### Master's degree in Environmental and Energy Engineering with honors (110/ 110)

EQF 7

Università degli Studi di Genova – Campus di Savona – Via A. Magliotto 2, 17100, Savona

The focus of the studies regarded Thermodynamics, Chemistry (Combustion), Flu dynamics, Power Plants and Renewable Energies, Mass Transfer phenomena, Natural Risk Management.

September 2006- July 2013

### Degree in Environmental Engineering (105/110)

EQF 6

Scuola politecnica di Ingegneria e Architettura, via Montallegro 1, 16154, Genova

The studies focused on Hydraulics and Hydraulic Structures, Waterworks and Sewage system

dimensioning, Applied Thermodynamics, and elements of Chemistry, Physics, IT, Electrical Engineering.

September 2001-June 2006

### High School Diploma

Science High School L. Lanfranchi, via ai Cantieri 7, 16158, Genova

#### PERSONAL SKILLS

Mother Tongue Italian

#### Other Languages

	COMPREHENSION		SPEECHING	WRITING
	Listening	Reading		
English	C2	C2	B2	C2
Bulats Certification – Cambridge English Language Assessment (obtained July 2015)				

#### Communication Skills

I have a gregarious personality with good communicative skills. During my work I have learnt how to teamwork and how to organize my job in a precise and scheduled activity, to respect deadlines. I possess also good capacity in problem solving, in both theoretical and practical situations.

#### IT Skills

Good competence MS Windows and Digital Technologies alike.  
MS Word, MS Excel, MS Powerpoint.  
Good skills with 2D drawing (AutoCAD) and 3D design (Sketchup - CREO).  
Good skills with Energy Plus and Openstudio (building dynamic energy simulation tools).  
Good skills with Honeywell UNISIM.  
In possess of the European Computer Driving License (ECDL).  
Matlab and Simulink.

#### Other Skills

I possess good handcraftsmanship due to my experience as construction worker (2013-2016)

#### Driving Licence

B & A1 (with own car)

#### FURTHER INFORMATION

#### Personal Interests

Crossfit, Martial Arts, Books, TV series, Movies.

#### Privacy Agreement

In compliance with the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance with art. 7 of the above-mentioned decree.