

CURRICULUM VITAE PROF. SIMONE PEDRAZZI

PERSONAL INFORMATION

- **Name:** Simone Pedrazzi
 - **Address:** Via della Solidarietà 10, 42015, Correggio (RE), Italy
 - **Telephone:** +39 0592058159 | **Mobile:** +39 3932409554
 - **E-mail:** simone.pedrazzi@unimore.it
 - **Nationality:** Italian
 - **Date of Birth:** 30/04/1985
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WORK EXPERIENCE

- **May 2024 – Present: Associate Professor**
 - **Institution:** University of Modena and Reggio Emilia – Department of Engineering “Enzo Ferrari”
 - **Field:** Industrial Technical Physics (GSD 09/IIND-07 - SSD IIND-07/A)
- **May 2022 – April 2024: Tenure-track Researcher (RTD-B)**
 - **Institution:** University of Modena and Reggio Emilia – Department of Engineering “Enzo Ferrari”
 - **Field:** Industrial Technical Physics (SSD ING-IND/10)
- **April 2019 – April 2022: Assistant Professor (RTD-A)**
 - **Institution:** University of Modena and Reggio Emilia – Department of Engineering “Enzo Ferrari”
- **January 2017 – December 2018: Research Fellow**
 - **Institution:** INTERMECH – University of Modena and Reggio Emilia
 - **Project:** REBAF (Recovery of River Bed Biomass) – focus on thermoconversion of river residues through gasification and pyrolysis
- **November 2014 – June 2021: Founder and Technical Manager**
 - **Organization:** Syn-GAS Srls (Bio-energy Start-up), Modena
- **January 2016 – December 2016: Research Fellow**
 - **Project:** "Use of a woody biomass gasification plant serving an agro-food greenhouse"
- **August 2014 – July 2015: Research Fellow**
 - **Project:** "Innovative methodologies for energy recovery from water resource prevention and maintenance activities"
- **June 2013 – May 2014: Research Fellow**
 - **Focus:** Modeling and simulation of advanced stationary generation systems (DG-SOFC-MGT) and syngas treatment optimization
- **May 2011 – May 2013: Research Fellow**
 - **Focus:** Functional analysis and optimization of cogeneration systems powered by biomass gasification
- **October 2010 – September 2011: Founding Partner**
 - **Organization:** Studio Tecnico Associato ESSEPIESSE (Energy design studio)

- **March 2010 – October 2010: Technical Manager**
 - **Organization:** A.G. Impianti S.a.s. (Civil and industrial systems)
 - **October 2008 – February 2010: Contract Teacher**
 - **Institution:** Convitto Nazionale Statale “Rinaldo Corso” – Technology laboratory and secondary school teaching
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EDUCATION AND TRAINING

- **January 2011 – March 2014: Ph.D. in Advanced Mechanics and Vehicle Engineering**
 - **Institution:** University of Modena and Reggio Emilia
 - **Thesis:** Design, simulation, and experimental analysis of woody biomass gasification cogeneration plants
 - **Classification:** ISCED 6
 - **May 2008 – July 2010: Master’s Degree in Mechanical Engineering**
 - **Focus:** Computer design and simulation of renewable energy cogeneration systems (wind/PV) with hydrogen storage
 - **September 2004 – May 2008: Bachelor’s Degree in Mechanical Engineering**
 - **Institution:** University of Modena and Reggio Emilia
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TEACHING ACTIVITIES

- **Academic Year 2024-2025 (Main Courses):**
 - **Energy Sustainability and Renewable Sources** (12 CFU) – Master's in Civil and Environmental Engineering
 - **Technical Physics** (5 CFU) – Bachelor's in Vehicle Engineering
 - **Automotive Thermal Control** (3 CFU) – Master's in Vehicle Engineering
 - **Renewable Energy Sources** (6 CFU) – PhD in Mechanical and Vehicle Engineering
 - **Past Roles:**
 - Member of the Teaching Board for the PhD program in Industrial and Territorial Engineering "Enzo Ferrari" since 2019
 - Co-supervisor of 28 degree theses on heat transfer and biomass energy
 - Extensive external teaching for technical institutes (ITS-TEC, IFTS) on energy management and water resource tutoring
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PATENTS

- **PCT WO2016178175:** Reactor for gasification plants (10/11/2016)
 - **PCT WO2016178176:** Gasification plant (10/11/2016)
 - **Italian Patent n. 102017000082284:** Apparatus and method for purifying gaseous products from biomass gasification (07/10/2019)
 - **Pending Applications:** Systems for condensate drainage in hydronic units, and methods for using char from gasification for thermal insulation and fertilizers
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RESEARCH PROJECTS & ADDITIONAL INFORMATION

- **Major Project Participation:**

- **VALBIOCOMB (PNRR NEST):** Smart Sector Integration for energy sustainable transition
- **ECOSISTER (PNRR):** Ecosystem for Sustainable Transition in Emilia-Romagna
- **CHAR RIMEDIO:** Principal Investigator (PI) for UNIMORE
- **VINE LEAF FOR LIFE:** Scientific Responsible for UNIMORE
- **Scientific Roles:**
 - Guest Editor for **American Institute of Physics (AIP)** Conference Proceedings
 - Reviewer for international journals: *Applied Energy*, *Energy*, *Renewable Energy*, and *Energy Conversion and Management*
- **Professional Affiliations:**
 - Licensed Engineer (Order of Industrial Engineers of Reggio Emilia, No. 2010 Sec. A)
 - Member of the **Italian Thermotechnical Association (ATI)** and **Italian Technical Physics (FTI)**

SKILLS & BIBLIOMETRICS

- **Languages:** Italian (Native), English (Excellent in reading, writing, and speaking)
- **Software Proficiency:** Advanced **Matlab**, **Python**, **Latex**, and 2D/3D CAD
- **Bibliometric Indicators (Scopus):**
 - **H-index:** 25
 - **Total Documents:** 136
 - **Total Citations:** 1669

Date: 29 May 2026

Signature

