

FRANCESCO CASTELLANI

Curriculum Vitae, April 17, 2024

Born in Spoleto (PG)- ITALY 18.11.1972

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CONTACT INFORMATION

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EDUCATION

2001 PhD Machine Engineering.

University of Perugia in consortium with Polytechnic University of Bari

1997 MS Mechanical Engineering. University of Perugia

ACADEMIC POSITIONS

2021–today Associate Professor in Applied Mechanics (ING-IND/13)

2007–2021 Associate Professor in Fluid Machines (ING-IND/08)

2002–2007 Assistant Professor in Applied Mechanics (ING-IND/13)

HONORS AND AWARDS

1996 Scholarship financed by ATA (Technical Association for Automotive Engineering) for the work of the MSc final thesis at FIAT Research Center.

TEACHING EXPERIENCE

Teaching within the University degree programs:

2020–today "Mechanics of Machines" (Industrial Engineering)

2010–today "Applied Mechanics" (MSc in Mechanical Engineering)

2011–2020 "Mechanical of Vibrations" (BA in Mechanical Engineering)

2007–2011 "Fluid dynamics for industrial applications" (MSc in Mechanical Engineering)

2004–2012 "Biotechnological Industrial Plants" (MSc in Industrial Biotechnology)
2004–2010 "Biotechnological Industrial Processes" (MSc in Pharmaceutical Biotechnology)
2005–2007 "Theoretical and applied Mechanics" (MSc in Mechanical Engineering)
2003–2005 "LCA and external costs analysis" (BA in Engineering Management)

Other Teaching:

2016–2017 Course on "Innovative techniques for Performance Evaluation and Industrial Equipment Fault Diagnosis." for PhD Students within the PhD program in Industrial Engineering and Information Technology at the University of Perugia
2015–2016 Course on "Industrial safety and major accident risk assessment." for the Master (I level) in Security Engineering and Industrial Risk Analysis at the University of Perugia
2018–2019 Course on "Methods for performance analysis and early fault diagnosis in industrial plants." for PhD Students within the PhD program in Industrial Engineering and Information Technology at the University of Perugia
2018–2019 Course on "Industrial safety and major accident risk assessment." for the second edition of the Master (I level) in Security Engineering and Industrial Risk Analysis at the University of Perugia

Teaching experience abroad giving lectures on wind Farm Design and wind turbine operation:

2016, 2017, 2018, 2019 Erasmus+ Mobility at KTH
Royal Institute of Technology in Stockholm (Sweden)
2016 Erasmus+ Mobility at TUM - Munchen (Germany)
2018 Erasmus+ Mobility at FH-Technikum - Wien (Austria)
2018 Erasmus+ Mobility at DTU-Wind - Copenhagen (Denmark)

PROFESSIONAL AND ACADEMIC SERVICE

Journal Referee

Applied Energy; Energy Conversion and Management; Energies; Wind Energy; Journal of Wind Engineering and Industrial Aerodynamics; Journal of Mechanical Engineering Science; Sensors; Journal of Systems and Control Engineering; Aerospace Science and Technology; Applied Sciences; Journal of Solar Energy Engineering

Guest Editor

"Wind Turbine Power Optimization Technology" for Energies (MDPI); "Experimental and Numerical Vibrational Analysis of Wind Turbines" for Vibrations (MDPI)

Editorial Board Member

*Energies (MDPI) (<https://www.mdpi.com/journal/energies/editors>)
Applied Mechanics (MDPI) (<https://www.mdpi.com/journal/applmech/editors>)*

Machines (MDPI) (<https://www.mdpi.com/journal/machines/editors>)

Wind (MDPI) (<https://www.mdpi.com/journal/wind/editors>)

Frontiers in Energy Research - Wind Energy (<https://www.frontiersin.org/journals/energy-research/sections/wind-energy>)

PHD Board Membership

2010–2014 Member of the PhD Board in "Energy Engineering" at the University of Perugia

2013–2014 Member of the PhD Board in "Industrial Engineering and Information Technology" at the University of Perugia

2017–Today Member of the PhD Board in "Industrial Engineering and Information Technology" at the University of Perugia

University Service

2014–2019 Energy Manager of the University of Perugia

Departmental Service

2014–2019 Head of the Wind Tunnel "Raffaele Balli" (<http://windtunnel.unipg.it>)

2019–today Scientific Director of the Wind Tunnel "Raffaele Balli" (<http://windtunnel.unipg.it>)

Advisory for grant programs

Years	Name of the funding program	Institution
2018	FONDECYT-CHILE	Chile Government
2020	BOKU Researchfunds	University of Natural Resources and Life Sciences, Vienna
2018	Applied and Engineering Sciences	Netherlands Organisation for Scientific Research (NWO)

R&D ACTIVITIES WITHIN GRANTS

Years	Name of the Project	Funding	Role
2016-2020	PRIN 2015 project "Smart Optimized Fault Tolerant WIND turbines"	Italian Government	Member of the research unit
2018-2020	OPTOWIND and WIND4EV projects	Fondazione Cassa di Risparmio di Perugia	Scientific Coordinator
2016-2021	OLIVE4CLIMATE LIFE15 CCM/IT/000141	EU – Life Project	Scientific Coordinator for the Department of Engineering
2018-2021	I-REXFO LIFE 16 ENV/IT 000547	EU – Life Project	Member of the research unit

BIBLIOMETRIC INDICATORS

The bibliometric indicators from scopus are:

H-Index:	26
Number of Documents:	136
Citations:	1723

The link for the scopus author profile is:

<https://www.scopus.com/authid/detail.uri?authorId=9842716300>

RESEARCH INTERESTS

Wind Energy Resource Assessment; Wind turbine operation; Wakes; Small Wind turbine test and dynamics;
Fault Diagnosis; Structure and Gearbox vibrational analysis

Mechanical Systems Hydraulic damping systems; rotational and linear actuators;
Car and Motorcycle Aerodynamics; Wind Tunnel test experiments.

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Perugia, April 17, 2024