

PERSONAL INFORMATION

UMBERTO DESIDERI

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MAIN WORK EXPERIENCE

November 2016-to date

Head of the Department

University of Pisa, Department of Energy, Systems, Territory and Constructions Engineering, Largo Lucio Lazzarino, 56122, Pisa, Italy

- Management of a University Department with 55 full time faculty and over 40 administrative and technical staff

[Public University](#)

November 2014-to date

Full Professor of Thermal Machines

University of Pisa, Department of Energy, Systems, Territory and Constructions Engineering, Largo Lucio Lazzarino, 56122, Pisa, Italy

- Research and teaching

[Public University](#)

December 2014-October 2016

President of the Didactic Board of the Program of Master in Energy Engineering

University of Pisa, Department of Energy, Systems, Territory and Constructions Engineering, Largo Lucio Lazzarino, 56122, Pisa, Italy

- Management of didactic activities for the master in Energy Engineering

[Public University](#)

January 2014-October 2014

Head of the Department

University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy

- Management of a University Department with 85 full time faculty and over 50 administrative and technical staff

[Public University](#)

January 2014-October 2014

Member of the Academic Senate

University of Perugia, Piazza Università 1, 06123, Perugia, Italy

- Regulatory and Organizational activity for the whole University

[Public University](#)

December 2004-October 2014

Full Professor of Thermal Machines

University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy

- Research and teaching

[Public University](#)

December 2014-October 2016

President of the Didactic Board of the Program of Master in Energy Engineering

University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy

- Management of didactic activities for the master in Energy Engineering

[Public University](#)

March 2000-December 2004

Associate Professor of Thermal Machines

University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy

- Research and teaching

[Public University](#)

December 1992-March 2000

Assistant Professor of Energy Systems

University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy

- Research and teaching

June 1988-October 1989 [Public University](#)
Research Assistant
University of Florence, Department of Energy Engineering, Via S. Marta 3, 50139, Florence, Italy

- Research

[Public University](#)

ADDITIONAL WORK EXPERIENCE

January 2017-to date [Public University](#)
Member of the Advisory Panel of Elsevier
Elsevier, Radarweg 29, 1043 NX, Amsterdam, Netherlands

- progress science through an open dialogue with the research community

[Private Company](#)

June 2017-to date **Member of the Provveditorato alle Opere Pubbliche della Toscana, Umbria e Marche**
Via dei Servi, 50121, Florence, Italy

- Validation of Public Project concerning heating and air conditioning plants

[Public Governmental Body](#)

May 2017-to date **Member of the Administration Board of We For Green Sharing**
WeForGreenSharing, Via Evangelista Torricelli, 37, 37136 Verona, Italy

- Management of a cooperative sharing company for the electric energy market

[Private Company](#)

November 2017-to date **Director of the Master in Commissioning of Renewable Power Plants**
University of Pisa, Lungarno Pacinotti 43, 56123, Pisa, Italy

- Management of didactic activities and selection of teachers in cooperation with Enel Green Power

[Public University](#)

November 2016-to date **Member of the National Examination Board of Italian University Professors**
Ministry of Education, University and Research, Rome, Italy

- Examination of candidate associate and full professor for being eligible to those roles

[Public Governmental Body](#)

September 2016-October 2016 **Visiting Professor at Warsaw Polytechnic University**
Warsaw University of Technology, Institute of Heat Engineering - Power Division, Nowowiejska 25, 00665 Warsaw, Poland

- Teaching and research cooperation

[Public University](#)

June 2016-September 2016 **Expert for Eeb-CA2 EU Coordination Action**
EeB-CA2 is Horizon 2020 Coordination Action funded by the Europe Commission for 24 months: 1st February 2015 - 30th January 2017 (Grant agreement no: 637003)

- Validation of the Technology Readiness Level (TRL) and market potential of technologies developed in the framework of EeB PPP projects

[Private company](#)

June 2015-to date **Member of the International Scientific Board of the Future Energy Profile**
Malardalens University, Vasteras, Sweden

- Auditing and validation of didactic and research activities done within the program

[Public University](#)

November 2014-to date **Member of the Scientific Advisory Board of CRIBE**
Centro di Ricerca Interuniversitario Biomasse per l'Energia, University of Pisa, Lungarno Pacinotti 43, 56123, Pisa, Italy

- Management of research activities

[Public University](#)

September 2010 **Visiting Professor at University of Madrid Carlos III**
University of Madrid Carlos III, Leganes, Spain

- January 2010-to date

 - Teaching at PhD Students with a Grant by the Spanish Ministry of Education
[Public University](#)
 - Member of the American Society of Mechanical Engineers Committee for the Performance Test Code PTC-48 “Overall Plant Performance with Carbon Capture”**
American Society of Mechanical Engineers, New York, USA
 - Development of a Performance Test code for the power plants with Carbon Capture
[Private Association of Engineers](#)
- June 2008-to date

 - Member of the Taskforce Technology of the EU Zero Emission Platform**
Carbon Capture and Storage Association, 10 Dean Farrar St., London, SW1H 0DX, U.K:
 - Participation to the activities and meetings
[Private-Public Association](#)
- January 2007-October 2014

 - Scientific Responsible of the Fuel Cell Laboratory of the University of Perugia**
University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy
 - Scientific responsibility of the activities and the research programs.
[Public University](#)
- May 2005-October 2009

 - Expert for a EU Tender**
Role and Impact of Small and Medium Size Enterprises in Energy Research framework Programme Projects" OJ 2007/S 129-157457
 - Expert comments about hydrogen and fuel cells
[Private company](#)
- May 2005-July 2009

 - President of the academic spin-off company Tree srl**
Tree srl, Via Settevalli 131/F, 06129, Perugia, Italy
 - Management and organization of the activities
[Private company](#)
- May 2005-July 2009

 - Vice-President of the academic spin-off company Bionet srl**
Bionet srl, Via della Caserma 51, 05100, Terni, Italy
 - Cooperation for the Management and organization of the activities
[Private company](#)
- November 2003-October 2005

 - Director of the International Master in Technologies for Greenhouse Gases Mitigation**
University of Perugia, Department of Engineering, Via G. Duranti 93, 06125, Perugia, Italy
 - Management of didactic activities and selection of teachers
[Public University](#)

EDUCATION AND TRAINING

- (1982-1988) **PhD Program in Energy Engineering** ISCED 6
Department of Energy Engineering, University of Florence, Florence, Italy
Thesis Dissertation about the Thermodynamic Analysis of the Kalina Cycles
- (1982-1988) **Laurea Magistrale in Ingegneria Meccanica** ISCED 5B
Faculty of Engineering, University of Florence, Florence, Italy
- (1977-1982) **Maturità Classica**
Liceo Classico “Galileo”, Florence, Italy

PERSONAL SKILLS

- Communication skills

 - Excellent communication skills and capacity to stimulate interest with the people I am interacting. Almost 30 years of research activity, teaching and communication and research team management. Speaker and invited lecturer at several national and international conferences and meetings. Tutor of over 30 Phd and over 250 Master theses.

Organisational / managerial skills

- Member of the Administration board of the University of Perugia, Member of the Academic Senate of the University of Perugia, Member of the Administration board of two spin-off companies and a cooperative company. Head of University Department either in Perugia or in Pisa. President of the Board of Studies in Energy Engineering, Director of the International Master in Technologies for Greenhouse Gases Mitigation and in of the Master in Commissioning of Renewable Power Plant. Coordination of several research projects at all levels: from national to local coordinator.

Job-related skills

- Capacity of analysing situations and to propose innovative solutions in the field of competence.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient User	Proficient User	Proficient User	Digital Competences	Proficient User

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Excellent command of office suite (word processor, spread sheet, presentation software)
- Excellent command of photo editing software gained as an amateur photographer
- Working experience with technical software tools: Aspen Plus, Simapro, Fluent
- Excellent utilization ability with operating systems: Windows, OSX, Unix

Driving licence

B

LANGUAGE SKILLS

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C1	C1	C1	C1	B2
German	B1	B1	B1	B1	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

ADDITIONAL INFORMATION

Projects	<p>In addition to several research contracts with companies: Piaggio, GE/Nuovo Pignone, Umbra Cuscinetti, Sorgenia, Cartiere di Trevi, Fratelli Piacenza, Ansaldo Ricerche, Akzo Nobel Coatings, Manuli Rubber, GRTN (now Terna), GSE, Banca Monte dei Paschi, Enel Green Power, Prof. Desideri was the scientific responsible:</p> <p>2001-2003: UE Thematic Network ISACOAT</p> <p>2003-2004: UE Program Asia Pro Eco: Efficient Integration of Renewable Biomass/Wastes Processing (Gasification and Clean Combustion in Particular) with Downstream Micro (gas) Turbine for Bioenergy (Bioelectricity in Particular) Supply.</p> <p>2003-2005: PRIN (Italian Ministry of University and Research): Study of high temperature fuel cells with alternative fuels. National Coordinator</p> <p>2004-2005: UE Program Asia Pro Eco: Feasibility study for the design of an industrial park with very low energy consumption and energy integration between the manufacturing and the residential buildings</p> <p>2005-2009: FISR (Italian funds from MIUR, MIPAF, MATT): New systems for distributed generation based on fuel cells. National Coordinator (10 M€ project)</p> <p>2011-2014: UE 7th FP: LOTUS—Low Temperature Solid Oxide Fuel Cells for micro-CHP applications</p> <p>2007-2009: PRIN (Italian Ministry of University and Research): Development of diagnostic systems for energy consumption in residential buildings</p> <p>2011-2013: UE LLP: Consorzio Erasmus Placement "Ingegneria per la sostenibilità"</p> <p>2010-2013: Industria 2015: "Mobilità Urbana ed Infraurbana Sostenibile e Sicura (MUSS)"</p> <p>2012-2014: UE 7th FP: CONTEX- Molten Carbonate Fuel Cell catalyst and stack component degradation and lifetime: Fuel Gas CONtaminant effects and EXtraction strategies</p> <p>2012-2015: UE 7th FP: H2FC Infrastructure Project for Hydrogen and Fuel cells</p> <p>2013-2016: SMART CITIES CENTRO-NORD: SEAL (Smart and Energy Aware Assisted Living)</p> <p>2015-: SIGS (Innovative ground source heat pumps) Funds of the Tuscany Region</p> <p>2015-: STECH (New technologies for gas turbines)) Funds of the Tuscany Region</p> <p>2015-2018: Coordinator and scientific tutor of the H2020 Marie Curie, GLASUNTES (New heat storage systems for concentrated solar energy)</p>
Conferences	<p>Participation at several national and international conferences</p> <p>Session organizer and track organizer for the ASME Turbo Expo Conferences since 1998</p> <p>Member of the Scientific Committee of ICAE (International Conference of Applied Energy) Conferences since 2009.</p> <p>Member of the Scientific Committee of ECOS (International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems) since 2012.</p> <p>Member of the Scientific Committee of the ICREGA'16 Conference.</p> <p>Member of the Sdewes (Sustainable Development of Energy Water and Environment Systems Conferences) Scientific Advisory Board since 2014.</p> <p>Member of the Scientific Committee of REMOO Energy Conferences since 2015.</p>
Honours and awards	<p>Best paper Award of the Coal Biomass and Alternative Fuels of the International Gas Turbine Institute in 2006</p> <p>Best paper Award of the Coal Biomass and Alternative Fuels of the International Gas Turbine Institute in 2009</p>
Memberships	<p>Member of the American Society of Mechanical Engineers since 1994</p> <p>Chair of the Coal Biomass and Alternative Fuels Committee of the International Gas Turbine Institute from 2006 to 2008</p> <p>Vice Chair of the Coal Biomass and Alternative Fuels Committee of the International Gas Turbine Institute from 2004 to 2006</p> <p>Fellow of the American Society of Mechanical Engineers since 2017</p>
Editorial Activity	<p>Member of the Editorial Board of the ASME Journal of Fuel Cell Science and Technology since 2005</p> <p>Member of the Editorial Board of the Journal Applied Energy since 2007 and Associate Editor since 2011.</p> <p>Member of the Editorial Board of the Journal Applied Thermal Engineering since 2013.</p> <p>Member of the Editorial Board of the Journal Energy Conversion and Management form 1999 to 2002</p> <p>Member of the Editorial Board of the Journal Science China Technological Sciences form 2012</p> <p>Member of the Editorial Board of the Journal of Thermal Science and Engineering Progress form 2015</p> <p>Member of the Editorial Board of the Journal Heliyon form 2016</p> <p>Editor and Guest Editor of several Special Issues published by Applied Energy.</p> <p>Reviewer for Energy, The International Journal of Hydrogen Energy, Journal of Power Sources, Journal of Cleaner Production, Energy and Buildings, Journal of Greenhouse Gas Technologies, Building and Environment, Bioresource Technologies, Chemical Engineering Science, Energy Conversion and Management, Experimental Thermal and Fluid Science, Geothermics, Journal of Analytical and Applied Pyrolysis, Biomass and Bioenergy, Energy Policy, Fuel, Renewable Energy, Sustainable cities and society.</p>

Refereeing activity Expert reviewer for projects submitted to the Dutch Ministry of Environment, City University of Hong Kong, Hong Kong University, French ANR Austrian FFG Ministry of Education of Romania Republic of Kazakhstan Technical University of Graz Swiss National Foundation The Flemish Foundation for Research.

Expert reviewer of projects submitted to the Italian Government Regione Piemonte Regione Puglia Province autonome di Trento e Bolzano Regione Veneto

Academic Examinations

External examiner for PhD dissertations at: Cranfield University, Royal Institute of Technology, Norwegian University of Science and Technology Trondheim, Malardalen University, University Roviri i Virgili, University of Zaragoza

Member of the examination board for the position of Associate Professor at the University of Stavanger

External evaluator for the position of Full Professor at the Hong Kong Polytechnic University

External evaluator for the position of Associate Professor at the Shanghai Jiaotong University

Citations

On January 17, 2019 Scopus reports 226 Publications with over 2500 citations and h-index=27 <http://orcid.org/0000-0001-7360-5762>

Publications

Ai sensi e per gli effetti di cui all'art.13 del Dlgs 196 del 30 giugno 2003 (Codice in materia di dati personali) dichiara di essere stato informato che i dati personali raccolti saranno trattati, anche con strumenti informatici, esclusivamente nell'ambito del procedimento per il quale la presente dichiarazione viene resa e che al riguardo mi competono tutti i diritti previsti.

Firenze, 17 Gennaio 2019