

Prof. Ing. Daniele TESTI, PhD

Born in Pietrasanta, Italy, December 28, 1977

STUDY AND RESEARCH

1995 USA "Graduation" with top grades

1996 Italian "Maturità Scientifica" with top grades (60/60)

2000 Scholarship at von Kármán Institute for Fluid Dynamics, Brussels

2002 Laurea Degree (5-year Course) in Aerospace Engineering with top grades (110 cum Laude/110), University of Pisa (UNIFI)

2003-05 PhD in Electrical and Thermal Energetics, UNIFI

For his PhD Thesis he received the "EUROTHERM Young Scientist Award", conferred every 4 years for European researches in the field of Applied Thermodynamics and Heat Transfer.

2006-10 Post-doctoral Position, Dept. Energetics, UNIFI

2011 Post-doc, Department of Energy and Systems Engineering (DESE), UNIFI

2011-14 Assistant Professor, Department of Energy, Systems, Territory and Construction Engineering (DESTEC), UNIFI

2014-22 Associate Professor, DESTEC, UNIFI (Scientific Discipline: ING-IND/10 "Industrial Technical Physics")

2022- Full Professor, DESTEC, UNIFI (Scientific Discipline: ING-IND/10 "Industrial Technical Physics")

Programme PRIN 2008 (Research Projects of National Interest): Member of the UNIFI Research Unit (Project: "Complex flow-structures in thermogravitational systems, their prediction, promotion, and heat transfer optimization").

Programme PRIN 2017: Coordinator of the UNIFI Research Unit (Project: "The energy flexibility of enhanced heat pumps for the next generation of sustainable buildings").

Main research fields: electrohydrodynamics, single-phase and multiphase heat transfer, mixed convection, submerged jets, compact heat exchangers and heat sinks, convective heat transfer enhancement techniques, measurements techniques in thermo-fluid dynamics, experimentation in microgravity, thermophysics of buildings and HVAC plants, energy saving in buildings, territorial energy planning, simulation and design of distributed energy systems (modelling, integration, optimization, risk assessment), microclimate for conservation of books and artworks.

Author or co-author of over 100 works, including over 50 papers published in major international scientific journals or in indexed book series, and 4 invited lectures to international congresses. In these papers, innovative researches are presented in the fields of electroconvection in gases and liquids, combined free and forced convection (both in horizontal and vertical configuration), measurement techniques in thermo-fluid dynamics (thickness of thin liquid films and liquid crystal thermography), energy efficiency in buildings, and optimal design and operation of distributed energy systems.

Involved in research and consulting contracts for public institutions and enterprises, such as Robur (2006-08), Energy Agency of the Pisa Province (2009), ENEA (2009-), Geo Network (2010-14), Tratech (2010-13), Pisa Research Consortium (2011), Samares (2011), Aosta Valley Region (2015), Immergas (2016-), RiESCo (2021-), Assotermica - ANIMA Confindustria (2021-).

TEACHING AND MANAGEMENT

Assistant Professor at UNIPI for "Applied Thermodynamics", Aerospace Engineering (2003-11, BSc), "Technical Physics II", Electrical Engr. (2004-06, MSc), "Technical Physics", Electronic Engr. (2011, BSc).

Supervisor of over 100 Laurea theses and 6 PhD theses.

Professor at UNIPI for:

2012-14 "Energy Saving in Buildings", Energy Engr. (MSc)

2012- "Thermo-Fluid Dynamics", Energy Engr. (MSc)

2015 "System Theory", Energy Engr. (BSc)

2015-18 "Energy and Energy Systems", Management Engr. (BSc)

2016- "Technical Physics", Energy Engr. (BSc)

2016-21 President of MSc Course in Energy Engineering

2018- Board Member of CIRESS (Centre for Research on Energy for Sustainable Development)

2019-22 "Smart Heating and Cooling Systems", Energy Engr. (MSc)

2020- Section Board Member of the Journal "Energies"

2021- Topic Editor of the Journal "Fluids"

2021- President of BSc Course in Energy Engineering

2022- "Methods for Energy Sustainability", Energy Engr. (BSc)