

Marilena De Simone, born on 20 December 1974 in Cosenza (Italy)

EDUCATION:

- Doctor in Environmental Engineering, University of Calabria, 2001.
- 1st year of FERDOS Master in "Expert in Radioprotection and Dosimetry", University of Calabria, 04/2002 – 03/2003.
- 2nd year of FERDOS Master in "Expert in Radioprotection and Dosimetry", University of Calabria, 09/2003 – 08/2004.

ACTUAL POSITION:

- Assistant Professor in Building Physics and Energy Systems, Department of Mechanical, Energy and Management Engineering, since 2007.
- Lecturer in Thermodynamics and Heat Transfer Sciences for students in Environmental Engineering, University of Calabria, since 2009.
- Delegate of the Career Guidance for the students of Environmental Engineering of the University of Calabria, since 2016.
- Member of the Coordination Committee of the Ph.D programme in Civil and Industrial Engineering of the University of Calabria, since 2017.
- Qualified for the role of Associate Professor in 2017.

ACADEMIC TRAINING AND WORKING EXPERIENCES:

- Ph.D. in Mechanical Engineering received from the University of Calabria, 11/2002 – 02/2006.
- Recipient of a research grant in Environmental Technical Physics, University of Calabria, 06/2006 - 09/2007.
- Specialist Engineer of ALESSCO - Agency for Energy and Sustainable Development of the Province of Cosenza (Italy), April – September 2007.

TEACHING ACTIVITY:

- Lecturer in:
 - Energy performance of Buildings for students in Civil Engineering, University of Calabria, 2010-2013.
 - Thermal behaviour of Buildings for students in Civil Engineering, University of Calabria, 2007-2010.
- Tutor in:
 - Thermodynamics and Heat Transfer Sciences for students in Environmental Engineering, University of Calabria, 2004-2009.
 - Air-conditioning systems for students in Energy Engineering, University of Calabria, 2005-2009.
 - Solar Engineering for students in Mechanical Engineering, University of Calabria, 2003-2009.
 - Building Technologies for students in Architecture and Building Engineering, University of Calabria, 2006-2007.
- Lecturer in post graduate courses:
 - Use of Renewable Energy Sources, University Master in Energy Management, University of Calabria, 2011-2012.
 - Solar Thermal Systems, Master founded by the Ministry for the Environment, Land and Sea, Sila National Park, Italy, November 2011- December 2012.
 - Energy Certification of Buildings, Course for Energy Auditors organized in the European Project Enforce (Intelligent Energy Europe), Rende, Italy, April 2012.
 - Service management and sustainable integrated water - energy cycle in urban drainage systems, University Master founded by the Italian Department of Education, University and Research, University of Calabria, May 2013 - June 2013.
- International seminars:

Lecturer in the INSPIRES meeting organized for Ph.D students by the University of Lleida (Spain), 19 July 2016.

Lecturer in the 3rd Training School, Experimental apparatus for measurement, organized for Ph.D students by the University of Lleida (Spain), 24-26 October 2016.

Keynote speaker in Student conference “Science or Fiction? – Imagine the future of thermal energy storage technologies and applications”, Riga Technical University, 29 October 2017.

Lecturer of the seminars “Energy performance of buildings. Innovative technical solutions and occupants' behavior” for students and academic staff of the Technological University of Panama, Panama City, 16-20 October 2017.

PHD SUPERVISION:

- *Supervisor:*

Candidate: Dr. Mora Guerra Dafni Yenive, Title: Occupants behavior influence on buildings energy performance. Investigations in residential and office buildings, Institution: Department of Mechanical, Energy and Management Engineering - University of Calabria (The Ph.D course was founded by the Technological University of Panama in agreement with the University of Calabria - Italy), 2013 – 2017.

Candidate: Dr. Cristina Carpino, Title: Innovative solutions for nZEB buildings and active behavior of the occupants, Institution: Department of Mechanical, Energy and Management Engineering - University of Calabria – Italy, 2015 - 2017.

- *Supervisor of foreign Institution:*

Candidate: Julià Coma Arpon, Title: Green roofs and green facades as a tool for energy efficiency in buildings, Institution: Department of Computer and Industrial Engineering (University of Lleida - Spain). Supervisors: Dr. Gabriel Pérez Luque and Prof. Luisa F. Cabeza. September - December 2013

PUBLICATIONS:

Co-author of more than 80 scientific publications published in national and international journals, books, and conference proceedings on the following themes: energy performance of buildings, passive and active solar systems, solar radiation, green roofs, energy storage materials, occupants' behavior and energy consumption of buildings.

- Scopus h-index: 9

REFeree OF INTERNATIONAL JOURNALS, MEMBER OF EDITORIAL BOARDS AND CONFERENCE COMMITTEES:

- Reviewer of: Renewable Energy, Applied Energy, Energy and Buildings, Energy Conversion and Management, Energy efficiency, International Journal of Thermal Sciences.
- Member of the editorial board of Journal of World Architecture, Bio-Byword Scientific Publishing, Sidney (Australia).
- Speaker in several national and international Conferences, Member of the organization committee of ATI 2011 (Rende, Italy) and AIGE 2013 (Rende, Italy). Chair of Innostorage Conference 2016 (Beer-Sheva, Israel), member of the scientific committee of EnerStock 2018 (Adana, Turkey).

PARTECIPATION IN FUNDED NATIONAL AND REGIONAL PROJECTS:

- PRIN 2003 - Italian Ministry of Education, University and Research – Energy and environmental assessment of buildings. Evaluation and Simulation methods. Code. 2003099773_007, duration: 24 months, started on November 2003.
- PRIN 2008 - Italian Ministry of Education, University and Research - Energy performance of existing residential buildings and requalification: real consumption, strategies and intervention techniques, methods of analysis to support the energy

classification and certification, Code: 20089S39ML_005, duration: 24 months, started on March 2010.

- Eolamp - Italian Ministry for the Environment, Land and Sea - funding of research projects aimed at energy efficiency measures and use of renewable energy sources in urban areas, Code: 31, duration: 24 months, started on February 2011.
- PON Research and Competitiveness 2007-2013 (APQ) - Italian Ministry of Education, University and Research - Integrated and sustainable water - energy cycle management in urban environment, Code: PON01_02543, duration: 36 months, started on October 2011.
- PON Research and Competitiveness 2007-2013 (APQ) - Italian Ministry of Education, University and Research, New Low Environmental Impact Process with Reduced Operational Risk in order to Recover and Recycle Lead Batteries Materials, Code: PON01_01366, duration: 36 months, started on December 2011.
- POR ERFD Calabria 2007-2013: IMPV project (September 2014 - December 2015)

PARTECIPATION IN FUNDED INTERNATIONAL PROJECTS:

- EC2 - European Union - Europe-China Clear Energy Center. The general objective is to support the Chinese Government's efforts to shape a more sustainable, environment-friendly and efficient energy sector. Reference: EUROPEAID/128591/L/ACT/CN. Contract number: DCI-ASIE/2010/222-185, duration: 60 months, started on April 2010.

LOCAL SCIENTIFIC COORDINATOR OF FUNDED INTERNATIONAL PROJECTS:

- INPATH-TES "PhD on Innovation Pathways for TES" - European Union - The goal is to create a network of universities and research institutes to implement a joint PhD programme on thermal energy storage (TES) technologies. Call: H2020-LCE-2014-2 - Type of action: CSA – G.A. 657466. Duration: 36 months, started on May 2015.

COORDINATOR OF INTERNATIONAL RESEARCH ACTIVITIES:

- Coordinator for the University of Calabria of the IEA EBC ANNEX 66 Definition and Simulation of Occupant Behaviour in Buildings, (IEA) International Energy Agency, EBC - Energy in Buildings and Communities Programme, 2014-2017.
- Leader of the scientific activity "Reference procedures for obtaining occupancy profiles in residential buildings" (ANNEX 66, Subtask A).
- Co-Principal Investigator of the activity: Interdisciplinary International Survey on Occupant Behavior (OB) in Office Buildings (ANNEX 66, Subtask E).

PARTECIPATION IN INTERNATIONAL JOINT RESEARCH ACTIVITIES:

- "Comparative research between Italy and China on building energy consumption - Statistical analysis, Survey and case study" in collaboration with the Tsinghua University of Beijing (China), Prof. Da Yan. May 2012.
- "Renewable Energy Technologies" in collaboration with the School of Engineering - University of Edinburgh (Scotland), Prof. Frank Mill. July - August 2012.
- "Energy performances of green roofs. A comparison between different technical solutions" in collaboration with CREA (Applied Energy Research Centre) – University of Lleida (Spain). May 2013 – April 2015.

MEMBER OF ASSOCIATIONS AND COMMITTEES:

- AICARR (Air Conditioning, Heating and Refrigeration Italian Association) and member of the Cultural Committee, since 2017.
- ATI (Italian Association of Thermotechnics).
- IBPSA (Italian regional affiliate of the International Building Performance Simulation Association).

FELLOWS AND VISITINGS:

- Fellowship Research Grant from the University of Lleida and Crea Institute (Spain) for research activities and cooperation on the topic "Thermal Energy Storage". 15 - 22 July 2015.
- Visiting Professor at the Technological University of Panama (Panama City) for the evaluation of the programme of the Master Degree in Mechanical Engineering. 16-22 October 2017.

PRIZES:

- Prize "Caputo 2012" received from ATI Lazio (Italian Association of Thermotechnics – Lazio Region) and attributed to the paper: G. Oliveti, N. Arcuri, R. Bruno, M. De Simone, A rational thermodynamic use of liquefied natural gas in a waste incinerator plant, Applied Thermal Engineering 35 (2012) 134-144.