# Curriculum vitae of

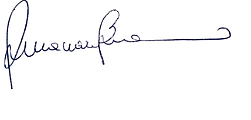
# **Annamaria BUONOMANO**

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| **null** | **Annamaria Buonomano, Ph.D.**  *Plase of birth*: San Felice a Cancello (Caserta, Italy)  *Date of birth*: November 25th, 1982  *Work address*: Department of Industrial Engineering,  University of Naples Federico II, 80125 Naples, Italy  *Website*: [www.docenti.unina.it/annamaria.buonomano](file:///C:\DATI\Users\Palombo\AppData\Roaming\Skype\My%20Skype%20Received%20Files\www.docenti.unina.it\annamaria.buonomano)  *Phone*: +39 0817682549 *Fax*: +39 0812390364  *Email*: [annamaria.buonomano@unina.it](file:///C:\DATI\Users\Palombo\AppData\Roaming\Skype\My%20Skype%20Received%20Files\annamaria.buonomano@unina.it) |
| ***Biography*** | |
| Dr. Annamaria Buonomano is full time *Assistant Professor* of Applied Thermodynamics and Heat Transfer at the Department of Industrial Engineering of the University of Naples Federico II, Italy. She obtained a B.Sc. and a M.Sc. in Engineering Management summa cum laude in 2004 and 2006 from the University of Naples Federico II and a Ph.D. in Energetics from the University of Palermo in 2010. During her postdoctoral studies she awarded several postdoctoral positions, from 2010 to 2014, at University of Naples Federico II at the Department of Energetics applied Thermo-fluid-dynamics and Environmental Control in order to develop building energy performance simulation models and innovative building-plant solutions, based on integrated construction techniques and renewable energy technologies. She was also visiting scholar at the Energy Performance of Buildings Group of the Lawrence Berkeley National Laboratory (Berkeley, USA) in 2009 and researcher at the Ben Gurion National Solar Energy Center of the Jacob Blaustein Institutes for Desert Research of University of Ben Gurion (Sde Boqer, Israel) in 2011, in order to develop a studies on hybrid ventilation and concentrating photovoltaic thermal systems, respectively.  She is currently Affiliate Professor at Concordia University (Montreal, Canada), continuing the scientific collaboration with Prof. Athienitis started in 2015 (when she also joined Concordia University as Visiting Scholar). Aim of the visits is to develop collaborative researchers on modeling and design of net zero energy buildings and integration of passive solar thermal systems in buildings.  **Expertise:** modeling, simulation and optimization of innovative building-plant systems, advanced building integrated envelope techniques, net zero energy buildings, renewable energies and innovative HVAC systems, including solar heating and cooling systems, photovoltaic solar thermal systems, polygeneration. On these topics, she published 19 peer-reviewed journal papers and one review paper, as well as many conference papers, receiving also a best paper award. As an expert on the above mentioned research fields, she has been involved in the peer review process of several international journals.  She was *substitute member* of the Management Committee of Action TU1205 (Building Integration of Solar Thermal Systems, BISTS) of the European COST (Cooperation in Science and Technology), Transport and Urban Development (TUD), involved in the modeling and simulation of solar systems for different scenarios of architectural integration.  She is *guest editor* of the Special Issue “*Solar Cooling and Heating*” of Energies ((ISSN 1996-1073). The Special Issue aims at collecting recent and relevant studies dealing with solar heating and cooling technology (<http://www.mdpi.com/journal/energies/special_issues/solar_heat_cool>).  She is *guest editor* of the Special Issue “*Renewable Energy, Environmental Engineering, Architectural and Civil Engineering, Sustainable Energy*” of American Journal of Engineering and Applied Sciences ((ISSN 1941-7020). The goal of this special issue is to collect papers on the recent advances and emerging cross-disciplinary in the field of renewable, sustainable, environmental and architectural engineering (<http://thescipub.com/journals/ajeas/cfp/49197>). | |
| ***University education***   * *Ph.D. degree* in *Energetics* at the University of Palermo (Italy). She awarded a Ph.D. grant to carry out research activities on building physics and dynamic simulation modeling of building – HVAC systems, including energy efficiency strategies and renewable energy technologies. She defended a thesis entitled “Dynamic Models for Performance Simulation of Buildings – HVAC Systems” on 9th April 2010. Period of enrolment: from January 2007 - December 2009. * *M.Sc degree* in *Engineering Management (Curriculum Energy Management)* at University of Naples Federico II - Grade: 110/110 summa cum laude (23th October 2006) (average: 29.53/30 cum 4 honors). The thesis focused on the modeling and simulation of the energy and economic performance of the HVAC plant of the commercial center “Vulcano Buono” designed by Renzo Piano and located close to Naples (South Italy). Thesis title: Thermodynamic and Economic Analysis of Water Loop Heat Pump System: A case study of “Centro Servizi Vulcano”. Period of enrolment: from November 2004 to October 2006. * *B.Sc. degree* in *Engineering Management of Logistics and Production* at University of Naples Federico II - Grade: 110/110 summa cum laude (4th November 2004) (average: 29.40/30 cum 6 honors). Thesis title: ”Heat Energy Measurement for civil and industrial usage: economic and managerial aspects”. Period of enrolment: from November 2001 to November 2004.   ***Postdoctoral university education***   * January 2011 - December 2014: Awarded a Postdoctoral position at the Department of Energetics applied Thermo-fluid-dynamics and Environmental Control, University of Naples Federico II (Italy). The carried out research activities aimed at the i) development of dynamic simulation codes for the calculation of the buildings energy consumptions and the energy performance analysis of innovative systems and technologies (e.g. solar heating and cooling, concentrating hybrid photovoltaic, etc.); ii) assessment of the energy and environmental performances and of the technical and economic profitability of innovative plant solutions and building integrated construction techniques, also toward the net zero energy building goal. * May - September 2010: Awarded a postdoctoral scholarship in order to develop a calculation model for the study of energy scenarios based on the use of molten carbonate fuel cells by using biogas obtained by several types of biomass and/or waste. The research activity was carried out at the Department of Energetics applied Thermo-fluid-dynamics and Environmental Control of University of Naples Federico II (Italy) in collaboration with the ENEA Institute (Ente per le nuove Tecnologie l’Energia e l’Ambiente). | |
| ***International collaborative researches and activities***   * *Visiting Scholar* at Concordia University (Canada – from July to November 2015 and from July to September 2016) in order to perform collaborative research activities in collaboration with Professor Andreas K. Athienitis on modeling and design of net-zero energy buildings and integration of passive solar thermal systems in buildings. The research activity was mainly focused on the development of numerical simulation models for the prediction of the thermal, electrical and daylighting performance of a multi-story double skin façade integrated with photovoltaics and of a multi-inlets building integrated photovoltaics / thermal system. In order to perform such research, she is co-supervising some students of Professor Athienitis’ team. The research was funded by University of Naples Federico II (Short-term mobility of teachers and researchers- International exchange program). * *Member of the Management Committee of Action TU1205* (Building Integration of Solar Thermal Systems, BISTS) of the European COST (Cooperation in Science and Technology), Transport and Urban Development (TUD), <http://www.cost.eu/domains_actions/tud/Actions/TU1205>. She is included in the international working group involved in the modeling and simulation of solar systems for different scenarios of architectural integration (WG2). Aim of the working group is the development of dynamic models for the analysis of the energy performance of innovative building integrated solar systems. Period: May 2014 at present. * *Researcher* at the Ben Gurion National Solar Energy Center, Jacob Blaustein Institutes for Desert Research (Israel – from July to October 2011), supervised by Professor David Faiman on the development and experimental validation of a heat transfer model for Concentrating Photovoltaic/Thermal (CPV/T) systems actively cooled. The research was funded, through a grant, by the Ben Gurion University. * *Visiting Scholar* at the Energy Performance of Buildings Group - Lawrence Berkeley National Laboratory LBNL, Berkeley (CA, USA – from February to September 2009), supervised by Max Sherman, Ph.D.. The research activity was focused on the analysis of the performance of passive, mechanical and hybrid ventilation systems for different US dwellings and climate zones. * *Erasmus Student* at the Department of Chemical Engineering of the University Rovira I Virgili, Tarragona (Spain – from February to July 2006). She conducted, as Erasmus Student, an internship research activity focused on the characterization and economic viability of biodiesel. Report title: Análisis de viabilidad económica y energética de la producción de biodiésel. | |
| ***Supervision of doctoral and research master students***  2015-2016: Scientific *supervisor* of Umberto Montanaro, postdoctoral student and holder of a grant provided through the National Operative Program for Research and Competitiveness funded by the Italian Ministry for Education University and Research though the European Fund for the Regional Development. Title of the research activity: Energy performance of buildings: development of dynamic simulation models including robust algorithms for the control of the temperature and humidity of indoor air.  ***Teaching, curricular and extra-curricular activities***   * 2015 – She was invited teacher at the Second Training School within the framework of the COST Action TU1205 on BIST (Building Integration of Solar Thermal systems), held at the International Center for Numerical Methods in Engineering of University of Lleida, Barcelona, Spain, from March 31st to April 2nd, 2016. The title of the lecture, attended by European PhD and MSc students selected by the members of the Action, was “Modelling building integrated solar systems with MatLab: methodology and examples”. * from 2007 to 2014 – She completed didactic tasks and teaching activities (tutorial and educational assistance) for the academic courses of i) Applied Thermodynamics and Heat Transfer and ii) HVAC systems, at the School of Engineering of the University of Naples Federico II (Italy). * 2011 and 2012 – She taught a module entitled: Energy audits and energy certification: use of thermal imaging cameras and other tools for testing and measuring data in an existing building. The module was held as part of several training courses for the energy certification of buildings, organized by the University of Naples Federico II and the Certification Board of Architects and Engineers of Naples (Italy).      * from 2007 up to now – She supervised and co-supervised more than 30 M.Sc., Ph.D. and postdoctoral students over the last seven years on the topics: energy efficiency of buildings, heating and cooling of buildings, thermodynamic and economic analysis of innovative HVAC systems, dynamic energy performance analysis of air conditioning and ventilating systems performance, energy saving in civil and industrial buildings, net zero energy buildings, renewable energy for civil and industrial applications. | |
| ***Management Activities***   * Substitute member of examination committee for doctorate degree thesis in Fluid Thermodynamic Engineering, University of Tarragona Rovira i Virgili (Spain). She was invited by the Chair of the doctoral programme to also review the Ph.D. thesis of Arturo Ordoñez García, titled “Effects of architectural design variables on energy and environmental performance of office buildings”. * Member of the Selection Committee for the award of a research grant AR/2015/SMARTGEN007 (Department of Industrial Engineering, University of Naples Federico II (Italy)) (May 2015). Tilte: Energy performance of buildings: development of dynamic simulation models including robust algorithms for the control of the temperature and humidity of indoor air.     ***Financed Projects***   * PON project on “Innovative multi-functional solutions for the optimization of primary energy consumption and indoor comfort in buildings” (PON03PE\_00093\_1, SMART CASE). National Operative Program for Research and Competitiveness funded by Italian Ministry for Education University and Research (European Fund for the Regional Development). Project duration: 2013-2016.      * POR project on “Mobility platform based on intelligent multi-agent systems” (FESR 2007-2013) Innovation Call - Regional Operational Program for Campania Region funded by Italian Ministry for Education University and Research (European Fund for the Regional Development). Project duration: 2014-2016. | |
| ***Memberships***   * Member, IBPSA - International Building Performance Simulation Association. * Member, Working group “NZEB (Net Zero Energy Buildings) in Mediterranean climates” on the development of new design guidelines and prototypes for achieving the NZEB goal in temperate climates. | |
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| ***Research interests and activities***  Research activities are focused on: building physics and thermodynamics principles, applied to the sustainability and the built environment; dynamic simulation modeling of building and HVAC systems, with a particular focus on energy efficiency and renewable energy technologies; thermo-economic and environmental analyses; energy efficiency and net zero energy building (NZEB) for civil, hospital and industrial applications; thermodynamic, economic and environmental analysis of power systems; renewable energy applications for civil, hospital and industrial applications. Her research long term vision is developing and providing advanced and flexible building energy performance simulation tools, capable to enable the building community to produce marked-viable innovative renewable applications, to be integrated in buildings, also toward the net zero energy buildings target. Such tools, necessary to design, construct and operate the next generation of buildings, must be able to perform energy, comfort and economic analyses, related to energy conservation measures, innovative building – plant technologies, also supported by renewable energies, and advanced control strategies, with the aim to overcome the trade-off between low energy demands and high thermo-hygrometric and visual comfort levels of occupants. On these topics she supervised more than 30 BSc, MSc and PhD students.  According to Scopus, her *h*-index is 9 and the number of total citations is 198. | |

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| ***Participation in international conferences as speaker*** |
| * *ECOS 2007 - 20th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems*, 25-28 June 2007, Padova, Italy (ISBN-10: 8889884088, ISBN-13: 9788889884089 - Editor: SGEditoriali); * *Climamed 2007: Energy, Climate and Indoor Comfort in Mediterranean Countries*, 5-7 September 2007, Genova, Italy (ISBN 9788895620022 - Editor: AiCARR); * *AIVC 2009* - *30th Air Infiltration and Ventilation Centre Conference*, 1-2 October, 2009, Berlin, Germany (ISBN 9781617827822 1617827827 - Editors: St-Stevens-Woluwe, Belgium - International Network for Information on Ventilation and Energy Performance , Red Hook, NY); * *ASME-ATI-UIT 2010 - Conference on Thermal and Environmental Issues in Energy Systems*, 16 - 19 May 2010, Sorrento, Italy (ISBN/ISSN: 978-884672659-9 - Editor: Edizioni ETS); * *SHC Conference 2013 - 2nd International Conference on Solar Heating and Cooling for Buildings and Industry*, 23-25 September 2013, Freiburg, Germany (ISSN: 1876-6102 - Editor: Elsevier); * *ECOS 2014 - 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems*, 15-19 June 2014, Turku, Finland (ISBN: 978-1-63439-134-4 - Editor: Zevenhouen R.); * *BSA 2015, Building Simulation Applications 2015* *- 2nd IBPSA-Italy Conference*, 4-6 February 2015, Bolzano, Italy (ISBN: 978-88-6046-074-5); * *IBPC 2015, 6th International Building Physics Conference*, 14-17 June 2015, Turin, Italy (paper published on Energy Procedia, doi: 10.1016/j.egypro.2015.11.316); * *Euro-Elecs 2015* - *First Latin-American and European Conference on Sustainable Buildings and Communities*, 21-23 July 2015, Guimarães, Portugal; * *Smart Net Zero Resilient Buildings and Communities CZEBS-iiSBE-APEC Net Zero Built Environment 2015 Symposium*, 20-21 August 2015, Montreal, Canada. * *NSERC/Hydro-Québec Industrial Research Chair 2016 Workshop*, Laboratoire des technologies de l’énergie, 29-30 August, 2016, Shawinigan, Canada.   The Best Paper Award - 2nd Place, at the 30th AIVC Conference *Trends in High Performance Buildings and the Role of Ventilation* (Berlin, Germany, October 2009) was obtained for the paper entitled *Analysis of residential hybrid ventilation performance in U.S. climates* (authors: Buonomano A., Sherman M. - Proceedings of 30th AIVC 2009 - ISBN: 9781617827822). |
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| ***Peer review activity*** |
| Involved in the peer review process of several Journals, such as:   * *Energy*, The International Journal, Elsevier - ISSN 0360; * *Applied Energy*, Elsevier – ISSN 0306-2619; * *Applied Thermal Engineering*, Elsevier - ISSN 1359-4311; * *Energy and Buildings*, Elsevier - ISSN 0378-7788; * *Renewable Energy*, Elsevier – ISSN 0960-1481; * *Journal of Renewable and Sustainable Energy*, AIP Publishing - ISSN: 1941-7012; * *American Journal of Engineering and Applied Sciences*, Science Publications - ISSN1941-7039. |
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| ***Peer review journal papers***   1. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d’Accadia, Gabriele Ferruzzi, Sabrina Frascogna, Adolfo Palombo, Roberto Russo, Marco Scarpellino, *Experimental analysis and dynamic simulation of a novel higherature solar cooling system*. Energy Conversion and Management, Volume 109, February 2016, Pages 19-39. 2. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Stefania Santini, *Dynamic building energy performance analysis: A new adaptive control strategy for stringent thermohygrometric indoor air requirements*. Applied Energy, Volume 163, February 01, 2016, Pages 361-386. 3. *Annamaria Buonomano*, Giuseppina De Luca, Umberto Montanaro, Adolfo Palombo, *Innovative technologies for NZEBs: an energy and economic analysis tool and a case study of a non-residential building for the Mediterranean climate*, Energy and Buildings, 121 (2016) pp. 318-343. 4. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, Maria Vicidomini, *BIPVT systems for residential applications: An energy and economic analysis for European climates*. Applied Energy, in press, doi:10.1016/j.apenergy.2016.02.145. 5. *Annamaria Buonomano*, *Code-to-Code Validation and Application of a Dynamic Simulation Tool for the Building Energy Performance Analysis*. Energies 2016, 9(4), 301; doi:10.3390/en9040301; 6. *Annamaria Buonomano*, Francesco Calise, Maria Vicidomini, *Design, simulation and experimental investigation of a solar system based on PV panels and PVT collectors*. Energies 2016, 9(7), 497; doi:10.3390/en9070497; 7. *Annamaria Buonomano*, Francesco Calise, Maria Vicidomini, *A dynamic model of an innovative high-temperature solar heating and cooling system*. Thermal Science 20(4): October 2016, doi: 10.2298/TSCI151204111B. 8. *Annamaria Buonomano*, Francesco Calise, Maria Vicidomini, *A Novel Prototype of a Small-Scale Solar Power Plant: dynamic Simulation and Thermoeconomic Analysis*. American Journal of Engineering and Applied Sciences: January 2016, doi: DOI: 10.3844/ajeassp.2016.xxxx.xxx. 9. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, Maria Vicidomini. *Energy and economic analysis of geothermal–solar trigeneration systems: A case study for a hotel building in Ischia*, Applied Energy 138 (2015) 224–241. 10. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d’Accadia, Raffaele Vanoli, Maria Vicidomini, *Simulation and experimental analysis of a demonstrative solar heating and cooling plant installed in Naples (Italy)*. American Journal of Engineering and Applied Sciences: August 2016, in press. 11. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, Adolfo Palombo, *Molten Carbonate Fuel Cell: an experimental analysis of a 1 kW system fed by landfill gas*. Applied Energy 140 (2015) 146–160. 12. *Annamaria Buonomano*, Giuseppina De Luca, Rafal Damian Figaj, Laura Vanoli, *Dynamic simulation and thermo-economic analysis of a PhotoVoltaic/Thermal collector heating system for an indoor–outdoor swimming pool*. Energy Conversion and Management 99 (2015) 176–192. 13. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, *Buildings dynamic simulation: Water loop heat pump systems analysis for European climates*. Applied Energy, Vol. 91(1), March 2012, pp. 222 - 234. 14. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, *Solar heating and cooling systems by CPVT and ET solar collectors: A novel transient simulation model*. Applied Energy, Vol. 103, March 2013, pp. 588-606. 15. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, *Thermoeconomic analysis of storage systems for solar heating and cooling systems: A comparison between variable-volume and fixed-volume tanks*. Energy, Vol. 59, September 2013, pp. 600-6016. 16. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Laura Vanoli, *A novel solar trigeneration system based on concentrating photovoltaic/thermal collectors. Part 1: Design and simulation model*. Energy, Vol. 61, 1 November 2013, pp. 59-71. 17. *Annamaria Buonomano* and Adolfo Palombo, *Building energy performance analysis by an in-house developed dynamic simulation code: An investigation for different case studies*. Applied Energy, Vol. 113, January 2014, pp. 788-807. 18. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, Laura Vanoli, *A novel renewable polygeneration system for hospital buildings: Design, simulation and thermo-economic optimization*. Applied Thermal Engineering, Vol. 67, Issue 1-2, June 2014, pp. 43-60. 19. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, Adolfo Palombo, *Dynamic energy performance analysis: Case study for energy efficiency retrofits of hospital buildings*. Energy 2014, Vol. 78, 15 December 2014, pp. 555–572. 20. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice, Adolfo Palombo, Maria Vicidomini, *Hybrid solid oxide fuel cells-gas turbine systems for combined heat and power: A review*, Applied Energy 156 (2015) 32–85. |
| ***Selected conference proceedings and other publications***   1. Zissis Ioannidis, *Annamaria Buonomano*, Andreas Athienitis, Teodore Stathopoulos, *A detailed dynamic model of multi-story double skin facades with integrated photovoltaic panels*. Proceedings of eSim 2016 International Conference (IBPSA-Canada. May 3 – 6, 2016, Hamilton, ON, Canada. 2. Zissis Ioannidis, *Annamaria Buonomano*, Andreas Athienitis, Teodore Stathopoulos, *Double Skin Façades Integrating Photovoltaic Panels: A Comparative Analysis of the Thermal and Electrical Performance*. Proceedings of Clima 2016 International Conference (May 22 – 25, 2016, Aalborg, Denmark). 3. Cristina Becchio, *Annamaria Buonomano*, Francesca Cappelletti, Stefano P. Corgnati, Tiziano Dalla Mora, Adolfo Palombo, Fabio Peron, Piercarlo Romagnoni, *Towards nZEBs: experiences in Italy*. Proceedings of Clima 2016 International Conference (May 22 – 25, 2016, Aalborg, Denmark). 4. Annamaria Buonomano and Adolfo Palombo. *A non-residential NZEB in Naples*, Rehva Journal. Vol. 52, issue 6, 2015 (ISSN 1307-3729. Rehva, Federation of European Heating, Ventilation and Air Conditioning Associations). 5. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Stefania Santini, *Multi-zone buildings thermo-hygrometric analysis: a novel dynamic simulation code based on adaptive control*. Building Simulation Applications 2015 - 2nd IBPSA-Italy Conference, Bolzano (Italy); 02/2015. 6. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Stefania Santini, *Adaptive control for building thermo-hygrometric analysis: a novel dynamic simulation code for indoor spaces with multi-enclosed thermal zones*. 6th International Building Physics Conference, IBPC 2015, Turin, Italy; 06/2015. 7. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Stefania Santini, *Building temperature control using an enhanced MRAC approach*. 2015 European Control Conference (ECC), Linz, Austria; 07/2015. 8. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Maria Vicidomini, *Energy saving technologies for a non-residential NZEB in Mediterranean climate.* Euro-Elecs 2015 - First Latin-American and European Conference on Sustainable Buildings and Communities, Guimarães, Portugal; 07/2015. 9. *Annamaria Buonomano*, Adolfo Palombo, *Modelling PCM, BIPV/T and other innovative technologies for energy efficiency in buildings: a case study for a non-residential NZEB in temperate climates*, Smart Net Zero Resilient Buildings and Communities CZEBS-iiSBE-APEC Net Zero Built Environment 2015 Symposium, Montreal, Canada; 08/2015. 10. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Maria Vicidomini, *NZEBs in Mediterranean climates: energy design and optimization for a non-residential building*, ATI 2015 - 70th Conference of the ATI Engineering Association, Rome, Italy; 09/2015. 11. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, Maria Vicidomini, *Building integration of solar thermal systems: a thermo-economic analysis*, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, Dubrovnik, Croatia; 09/2015. 12. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Adolfo Palombo, Maria Vicidomini, *A review of hybrid power plants including solid oxide fuel cells and gas turbine systems*, EFC15 - European Fuel Cell Conference & Exhibition - Naples (Italy), December 16-18, 2015. 13. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Adolfo Palombo, Maria Vicidomini, *A review of hybrid power plants including solid oxide fuel cells and gas turbine systems*, EFC15 - European Fuel Cell Conference & Exhibition. Naples, Italy, 16-18 December 2015. 14. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, Laura Vanoli, *Variable-volume storage systems for solar heating and cooling system: A case study for different Italian climates,* Energy Procedia, Vol. 48, 2014, pp. 290–299. 15. *Annamaria Buonomano* and Adolfo Palombo, *NZEBs design and simulation: a new tool for dynamic energy performance analyses*, ECOS 2014, 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy systems. Turku, Finland, 15-19 June 2014 (ISBN 978-952-12-3099-8). 16. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Laura Vanoli, *Simulation of a demonstrative solar heating and cooling plant installed in Naples*. ECOS 2014, 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy systems. Turku, Finland, 15-19 June 2014 (ISBN 978-952-12-3099-8). 17. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Marco Scarpellino, *Design and simulation of a prototype of a small‐scale solar power plant based on evacuated flat‐plate solar collectors and Organic Rankine Cycle*, ECOS 2014, 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy systems. Turku, Finland, 15-19 June 2014 (ISBN 978-952-12-3099-8). 18. *Annamaria Buonomano*, Giuseppina De Luca, Rafal Damiai, Laura Vanoli, *Transient Simulation of a PhotoVoltaic/Thermal Collector heating system for outdoor swimming pools*, ECOS 2014, 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy systems. Turku, Finland, 15-19 June 2014 (ISBN 978-952-12-3099-8). 19. *Annamaria Buonomano*, Umberto Montanaro, Adolfo Palombo, Stefania Santini, *Indoor air temperature control in buildings via an optimal tuned PI strategy*, International Journal of Engineering and Innovative Technology (IJEIT) Vol. 4, Issue 4, October 2014 (ISSN: 2277-3754). 20. *Annamaria Buonomano*, Francesco Calise, Massimo Dentice d'Accadia, Laura Vanoli, *Concentrating parabolic dish photovoltaic/thermal collectors. Part 1: design and simulation model*, Proceedings of SEEP2012. Dublin, Ireland, 05-08 June 2012. 21. *Annamaria Buonomano*, Gur Mittelman, David Faiman, et al., *Modelling an actively-cooled CPV system*, AIP Conference Proceedings, 1477 (2012), pp. 235-238. doi: 10.1063/1.4753876. 22. *Annamaria Buonomano* and David Faiman, *CPV/T actively-cooled system: A predictive heat transfer dynamic simulation model*, Proceedings of the 17th Sede Boqer Symposium on Solar Electricity Production, Sde Boker, Israel, October 2011. 23. *Annamaria Buonomano*, Francesco Calise, Gabriele Ferruzzi, Adolfo Palombo, *Water Loop Heat Pump System: Dynamic Simulation and Energy Saving Optimization*, Proceedings of the ASME-ATI-UIT International Conference on Thermal and Environmental Issues in Energy Systems, Sorrento, Italia, 16-19 May 2010, pp. 55-60. 24. *Annamaria Buonomano* and Max Sherman, *Analysis of residential hybrid ventilation performance in U.S. climates*. Proceedings of AIVC 30th Conference Trends in High Performance Buildings and the Role of Ventilation, Berlin, Germany, 1-2 October 2009, pp. 40-45 (ISBN 9781617827822). 25. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo, Thermodynamic and Economic *Simulations of Water Loop Heat Pump Systems: A Computer Based Approach*, ECOS 2007 - Proceedings of the 20th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems, Padova, Italia, 25-28 June 2007, Vol. I pp. 619-627 (ISBN-10: 8889884088, ISBN-13: 9788889884089). 26. *Annamaria Buonomano*, Francesco Calise, Adolfo Palombo. *Water Loop Heat Pump System Performances in European Climates*, Proceedings of CLIMAMED 2007 Energy, Climate and Indoor Comfort in Mediterranean Countries, Genova, Italia, 5-7 September 2007, pp. 471-490. |

I declare that the Curriculum Vitae is true and correct as at August 31st 2016.

*Montreal (Canada), August 17th, 2018*



*Annamaria Buonomano*