
Gianluigi Lo Basso

Contacts:

E - mail:

Current Address:

Mobile:

SKILLS

Keywords: Renewable Energy, Hybrid Systems, Smart Grid, Hydrogen end-uses, H₂NG blends, CHP plants, CCHP plants, Gas and Steam Turbines, Combined Cycles, USC power plants, Dynamic models development, Energy management, Electrical Market mechanisms, Techno-economic feasibility analysis, Budgeting for national and international research project proposals, Teaching, Public speaking.

Technical: Adobe Photoshop CS3/CS4; FileMaker 8. Pro; Minitab 14; Mathcad 13; Madonna 8; Solidworks 2008 ; Cosmos Works 2008; Cosmos Flow Works 2008; Cosmos Motion 2008; GATE cycle; Termus 16.0 ; DOCET; X CLIMA ; Solarius-PV 5.0; Tsol Pro 4.5; Hybrid 2; HOMER 2.68; Matlab Simulink; Master Clima 11300; BlueMatica.

Other:

Adjunct Professor of Technical Systems - Sapienza University of Rome- Faculty of Architecture.

International conferences chairing:

IEEE-Energy Sustainability in Small Islands- Milan (Italy) 2017

Scientific reviewer for international journals:

Renewable and Sustainable Energy Reviews - Ed. Elsevier

Energy and Buildings- International Journal - Ed. Elsevier

International Journal of Hydrogen Energy - Ed. Elsevier

Energy -International Journal - Ed. Elsevier

Sustainability- Ed. MDPI AG

Energies- Ed. MDPI AG

Energy Efficiency Journal-Ed.Springer

Renewable Energy Journal - Ed. Elsevier

Linguistic: Italian (mother tongue), English (Advanced).

CERTIFICATION

2011 Building Energy Auditor License, Regional Specialisation course (160 hours)

2010 Professional Engineer License

EXPERIENCE

Since April 2017

Sapienza University of Rome (Italy)

Italian work-package Technical coordinator of PRISMI Project

(Penetration of Renewables in Smart Mediterranean Islands) funded by EU

- INTERREG Program

Since March 2016

HyDEP s.r.l. Lodi (Italy)

Process Engineer for Mass and heat balances for alkaline electrolysers

design, Hydrogen piping and purifying systems

April–July 2014:	<i>H2 Nitidor s.r.l Milan (Italy)</i> – Technical advisor for energy–economic feasibility analysis for off–grid hydrogen–based dwellings in different climate areas
April 15–September 15, 2010:	<i>ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)</i> - Technical Advisor for CCHP plant design and techno–economic feasibility.
September 19, 2009–March 21, 2010:	<i>SAE (Energy services for athenaeum) Sapienza, University of Rome</i> - Internship in Central Technical Division for the University Smart Grid development.
January 2009–February 2011:	<i>E–ON Energy (Italy)</i> –Sales account for Business Customers. Contractor for electricity and natural gas supply.
May 2008–December 2008:	<i>Acea Electrabel</i> – Sales account for Business Customers. Contractor for electricity, energy services, data monitoring software, renewables supply.
June 1995–May 2008:	Other activities (non–technical)

EDUCATION

October 2014:	Ph.D. in “Energy Saving and Distributed Micro Generation” . DIAEE (Department of Astronautics, Electrical and Energy Engineering) Sapienza, University of Rome. <i>Thesis: Hybrid system for renewable hydrogen end use: experimental analysis for performance assessment on the integrated CHP reciprocating engine fuelled with H₂NG blends.</i>
October 31, 2014	Ph.D. graduation with honour.
September, 2014	Selected Researcher for ENERSTORE 2014, International Grant Winner for attending specialist summer school on energy storage systems at TU–Dresden (Technische Universitat of Dresden) , Germany
November 2010–2014:	Ph.D. Student, Scholarship Winner, first place with a score 100/120 in “ Energy Saving and Distributed Micro Generation” . DIAEE (Department of Astronautical,

Electrical and Energy Engineering) - Sapienza, University of Rome.

February 27, 2009: Master' s Degree in “ Energy and Nuclear Engineering” , 05/110 at Tor Vergata University of Rome.
Thesis: *Energy rationalization of INDESIT manufacturing plant located in Melano (Italy)*.

April 27, 2005: Bachelor' s Degree in “ Mechanical Engineering” , 101/110 at Tor Vergata University of Rome.
Thesis: *USC (Ultra Super Critical) steam power plants for energy production*.

July 1994: Scientific Studies Degree 46/60, at Liceo Scientifico San Leone Magno, Rome (Italy).

LIST OF INTERNATIONAL PUBLICATIONS

1. DE SANTOLI, L., LO BASSO, G., BRUSCHI, D., (2014), A small scale H₂NG production plant in Italy: techno-economic feasibility analysis and costs associated with carbon avoidance. International Journal of Hydrogen Energy, ed. Elsevier.
 2. DE SANTOLI, L., LO BASSO, G., BRUSCHI, D., (2013), Hybrid system with an integrated CHP plant fuelled by H₂NG blends: theoretical energy-environmental analysis and foreseeable optimizations. Energy and Building, ed. Elsevier.
 3. DE SANTOLI, L., LO BASSO, G., BRUSCHI, D., (2013), Energy characterization of CHP fuelled with hydrogen enriched natural gas blends. Energy, ed. Elsevier.
 4. DE SANTOLI, L., LO BASSO, G., BRUSCHI, D., (2013), Hydro methane blends use in a CHP plant: an energy-environmental analysis. In: CLIMA 2013 – 11th REHVA World Congress and the 8th International Conference on IAQVEC, 16 - 19 June, Prague, Czech Republic.
 5. DE SANTOLI, L., LO BASSO, G., BRUSCHI, D., (2013), Preliminary experimental analysis of a CHP hydromethane system. Journal of Energy and Power Engineering, ed. David Publishing.
 6. L. DE SANTOLI, LO BASSO G. (2011) Preliminary experimental analysis of a CHP hydromethane system. 6th Dubrovnik conference on sustainable development of energy, water and environment systems, September 25th - 29th 2011, Dubrovnik, Croatia.
 7. DE SANTOLI L., ALBO A., BRUSCHI D., LO BASSO G., NASTASI B. (2014) RES (Renewable Energy Sources) availability assessments for Ecofuels production at local scale: carbon avoidance costs associated to a hybrid biomass/H₂NG-based energy scenario. Energy Procedia. In press
 8. DE SANTOLI L., LO BASSO G., ALBO A., BRUSCHI D., NASTASI B. (2015) Single cylinder internal combustion engine fuelled with H₂NG operating as micro-CHP for
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residential use: preliminary experimental analysis on energy performances and numerical simulations for LCOE assessment. Energy Procedia.

9. **LO BASSO G.**, DE SANTOLI L., ALBO A., NASTASI B. (2015) Hydrogen–Natural Gas mixtures (H₂NG) effects on energy performances of a condensing micro–CHP for residential applications: an expeditious assessment of water condensation and experimental analysis. Energy, Ed. Elsevier

10. DE SANTOLI L., **LO BASSO G.**, NASTASI B. (2015) Sapienza Distributed Generation Lab for Smart Energy Systems: research activities outline. 10th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES 2015, Dubrovnik, 27th Sep. - 2nd Oct. 2015

11. NASTASI B., **LO BASSO G.** (2016) Hydrogen to link heat and electricity in the transition towards future Smart Energy Systems. Energy, Ed. Elsevier

12. **LO BASSO G.**, PAIOLO R. (2016) A preliminary energy analysis of a commercial CHP fuelled with H₂NG blends chemically supercharged by renewable hydrogen and oxygen. Energy Procedia, Ed. Elsevier

13. **LO BASSO G.**, NASTASI B., ASTIASO GARCIA D., CUMO F. (2017) How to handle the hydrogen enriched natural gas blends in combustion efficiency measurement of conventional and condensing boilers. Energy, Ed. Elsevier

14. SALATA F., GOLASI I., DOMESTICO U., BANDITELLI M., **LO BASSO G.**, NASTASI B., DE LIETO VOLLARO A. (2017) Heading towards the nZEB through CHP + HP systems. A comparison between retrofit solutions able to increase the energy performance for the heating and domestic hot water production in residential buildings. Energy Conversion and Management, Ed. Elsevier

15. DE SANTOLI L., **LO BASSO G.**, NASTASI B. (2017) The Potential of Hydrogen Enriched Natural Gas deriving from Power–to–Gas option in Building Energy Retrofitting. Energy and Buildings, Ed. Elsevier

16. **LO BASSO G.**, NASTASI B., SALATA F., GOLASI I. (2017) Energy retrofitting of residential buildings - how to couple CHP and HP for thermal management and off–design operation. Energy and Buildings, Ed. Elsevier

17. NASTASI B. **LO BASSO G.**, (2017) Power–to–Gas integration in the Transition towards Future Urban Energy Systems

18. DE SANTOLI L., PAIOLO R., **LO BASSO G.** (2017) An overview on safety issues related to hydrogen and methane blend applications in domestic and industrial use. Energy Procedia, Ed. Elsevier

19. DE SANTOLI L., **LO BASSO G.**, NASTASI B. (2017) Innovative Hybrid CHP systems for high temperature heating plant in existing buildings, Energy Procedia, Ed. Elsevier

20. DE SANTOLI L., LO BASSO G., LETTINA F., LIMATOLA A., Energy And Economic Analysis On A Demo Hybrid CCHP (Combined Cooling Heat And Power) Plant For University Lecture Hall Air Conditioning. 12th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES 2017, Dubrovnik, 4th Oct. - 8th Oct. 2017

21. ASTIASO GARCIA D., BERGHI S., BRUSCHI D., GROPPI D., LO BASSO G., On the path to energy independence: hybrid energy systems evaluation towards Favignana smart energy island. 12th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES 2017, Dubrovnik, 4th Oct. - 8th Oct. 2017.

22. DE SANTOLI L., LO BASSO G., PAIOLO R. (2017) An overview on safety issues related to hydrogen and methane blend applications in domestic and industrial use. Energy Procedia, Ed. Elsevier.

23. LO BASSO G., ROSA F., ASTIASO GARCIA D., CUMO F. (2018) Hybrid systems adoption for lowering historic buildings PFEC (primary fossil energy consumption) – A comparative energy analysis. Renewable Energy, Ed. Elsevier

24. DE SANTOLI L., LO BASSO G., SPIRIDIGLIOZZI G., ASTIASO GARCIA D., (2018) Innovative hybrid energy systems for heading towards NZEB qualification for existing buildings. 18th IEEE International Conference on Environment and Electrical Engineering, 12–15 June 2018, Palermo, Italy.

LIST OF PUBLICATIONS UNDER REVIEW

Per pubblicazione

I sottoscritto, ai sensi del D.L.vo 196/2003 dichiara di essere a conoscenza che i propri dati saranno trattati dall'università per assolvere gli scopi istituzionali ed al principio di pertinenza.

Firma

