# Curriculum Vitae

## Personal Information


Name **Stefano Barberis**

Address

Teephone

E-mail

Nationality

Date of Birth

Gender


## Professional Interest

The world of energy production has always fascinated me since childhood and has led me to choose Mechanical Engineering for my academic training. My curiosity and desire to learn has also encouraged me to continue my training via a PhD, where I actively collaborated in a highly motivated international research group with a strong proactivity in industrial and international collaborations. I have always been interested in renewable energies and technologies related to sustainable production and use of energy and particularly in energy storage technologies, the topic of my doctoral research. The doctoral experience has allowed me to expand my knowledge about the world of energy production with a present and future energy scenario perspective, by studying technical, economic and regulatory issues.
Thanks to my PhD and my following career in RINA Consulting, I increased my attention to innovation, always thinking about how to make R&D results ready and viable for market and end-users

## Currently

Since September 2016 - Project Manager Innovation for Energy R&D Division of RINA Consulting SpA.

Coordination and Proposal Writing of Industrial and EU funded project. I've been coordinator of the H2020 Projects named PLANHEAT, SunHorizon, MUSE GRIDS, FLEXNCONFU, SOLARSCO2OL and EVERYWH2ERE. Redaction of more than 150 H2020 proposals with a personal success rate of around 40%: Coordinator for RINA Consulting SpA of all EC Funding initiatives related to energy topics.
Technical supervision and support in H2020 projects related to renewables, energy efficiency in buildings and in industrial project, fuel cell and hydrogen technologies, renewable energy.
Thanks to this job I acquired expertise in product development, energy management and auditing, innovation management and development, IPR and business modeling, energy market analysis and team management

## PREVIOUS ACADEMIC PROFESSIONAL EXPERIENCE

From January 2012 to September 2016

Associated Researcher and, before, PhD Student at the Thermochemical Power Group – TPG - Department of Mechanical Engineering – University of Genova

My PhD research project focused on the study and implementation of a smart grid at the university campus in Savona. My PhD position was supported and partially financed by the RESILIENT FP7 EU project, involving International research institutes and companies. I was involved in the writing and elaboration of a few of EU project proposals within the Horizon 2020 EU Research framework. My scientific interests were about energy storage solutions for CSP plants, fossil based power plant flexibility, smart grids and industrial plants. I supported "Energy Systems" and "Machinery and Systems for Energy and Propulsion" courses in the Mechanical Engineering Course at the Polytechnic School of Genoa (Academic Year 2013-2014, 2014-2015) and I supervised as assistant supervisor more than twenty BSc and MSc thesis.

**PREVIOUS PROFESSIONAL EXPERIENCE IN THE FIELD OF AGROENERGY AND BIOGAS**

Since January 2016 collaborator for the agricultural enterprise Sweet Milk, based in Chiusa Pesio (CN - Italy) for the development of project proposals for National and European call of proposals, as well as technical activities related to biogas plants, to their design and their management.
Since January 2016 Assistant for the Centro Italiano Biogas (CIB) for engineering consultancy activities, regulatory audits, development of research

## Professional Experience

Date: Since 2008 to 2014
Position: Scientific divulgator at the Genova Science Festival (Festival della Scienza di Genova – Matefitness)

Date: Since 2013 until today
Position: Didactic activities and lessons for various local professional training entities such as Università degli Studi di Genova – ASSEFORM – Scuola Edile IM – Studio Saj – Scuola Edile SV – Former - Università Uni-eCampus (Cultore della Materia)

Date: Since 1 September 2015 to 20 December 2015
Position: Research Engineer at KTH – Energy Department – Solar Group led by prof Bjorn Laumert in the framework of a collaborative research project about the use of concrete as Thermal Storage media for CSP Direct Steam Generation power Plant

## Education

PhD

**DOTTORATO IN INGEGNERIA DELLE MACCHINE A FLUIDO – PhD IN TURBOMACHINERY**

Università degli Studi di Genova - University of Genova

European PhD Title – Defence in April
Thesis: "Polygenerative Smart Grids and interaction with energy storage systems"

Master Degree

LAUREA MAGISTRALE IN INGEGNERIA MECCANICA Energia e Aeronautica – Master Degree (MSc) in Mechanical Engineering – Energy and Aeronautics

University of Genoa – Italy

Valutation 108/110
DATE: 25/10/2012

Thesis: Thermoeconomic Optimization of Innovative Concentrated Solar Power Plants

Bachelor Degree

LAUREA IN INGEGNERIA MECCANICA – Bachelor Degree (BSc) in Mechanical Engineering

University of Genoa – Italy
Valutation 98/110
DATE: 28/10/2010

Thesis: Experimental and FEM analysis of Friction Stir Welding Joints

Other Professional Certifications

Professional Engineer Certification Exam – 2012
Registered as P.E. in the Ordine degli Ingegneri di Genova – N.10114A
Energy Auditor for Building Energy Efficiency for Liguria Region Environmental Agency

Prize and Award

**"ASME – Young Engineer Travel Award ASME TurboExpo 2015"**
American Society of Mechanical Engineering

**Most relevant scientific Publications**

**I have been author of more than 30 publications on International Journal and conferences, here in the following I present the most relevant ones.**

Authors **S. Barberis, M.Rivarolo, A. Traverso**
Date June 2014, Asme Turbo Expo Proceedings, GT2014 -25137
Title *"Thermoeconomic Optimization Of Csp Hybrid Power Plants With Thermal Storage"*

Authors **S.BArberis, A.Traverso**
Date March 2015, Proceedings Of ICAE 2015 Conference, Abu Dhabi, UAE –
Energy Procedia 75 ( 2015 ) 1080 – 1086
Title *"Thermoeconomic Analysis Of Csp Air-Steam Mixed Cycles with Low Water Consumption*

Authors **S.BArberis, A.Traverso**
Date June 2015, ASME Turbo Expo Proceedings, Montreal Canada, Paper No. GT2015-42189
Title *"Thermoeconomic Analysis Of Csp Air-Steam Mixed Cycles"*

Authors **S.BArberis, M.Rivarolo, A.Traverso, A.F.Massardo**
Date *Applied Thermal Engineering*, Applied Thermal Engineering, Vol. 97, pp. 1-12.
Title Thermo-economic optimization of a real polygenerative district

Authors **S.BArberis, M.Rivarolo, A.Traverso, A.F.Massardo**
Date *Journal of Energy Storage*, Journal of Energy Storage, Vol. 5, pp. 187-202.
Title Thermo-economic analysis of the energy storage role in a real polygenerative district

Authors **S.BArberis, A.N. Traverso, A.Traverso, A.F.Massardo**
Date June 2016, ASME Turbo Expo Proceedings, Seoul, South Korea, Paper No. GT2016-56202
Title *High T Storage For CSP Hybrid Gas Turbine: Test Rig Dynamic Analysis And Experimental Validation*

Authors **S. Bellan, A. Cordiviola, S. Barberis, A. Traverso, J. González-Aguilar, M. Romero**
Date Renewable Energy and Environmental Sustainability, Vol. 2, pp. 1-6.
Title *"Numerical analysis of latent heat storage system with encapsulated PCM in spherical capsules",*

Authors **F.Magrassi, E. Rocco, S. Barberis, M. Gallo, A. Del Borghi**
Date *Renewable Energy,* Volume 130, *January 2019, Pages 290-304*
Title Hybrid solar power system versus photovoltaic plant: A comparative analysis through a life cycle approach

| *European Level* | | Comprehension | | | Speaking | | | | Writing | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Listening | | Reading | | Interaction | | Production | | |
| **INGLESE** | 1 | C1 | | C1 | | C1 | | C1 | | C1 |
| **FRANCESE** | 2 | B2 | | B2 | | B1 | | B1 | | B1 |

Computer Skills
Excellent knowledge of OFFICE Package software (Word, Powerpoint, Excel)
Programming language MATLAB , C + + - Visual Basic – Fortran,
I have been used to implement and use thermoeconomic analysis software and code since 2012

Other transversal skills
Excellent team working and problem solving capabilities thanks to my professionalism in managing international teams in EC funded projects as well as my personal experiences in the AGESCI Scout Movement (where I'm still a leader), and my sport experience as volleyball player and manager.

Other Projects
I've been part of several entrepreneurial projects that, starting from a simple concept/ideas, brought to the birth of two startups (H2BOAT and SIT) and of new products. I'm interested in International Cooperation also towards a sustainable and responsible development of Developing countries.

Final Remarks
I have always been focused on research and scientific and technological innovation and after my PhD I moved to RINA Consulting, the largest Italian independent engineering and consultancy company.
I am interested in all the aspects and technologies related to energy: power production, energy harvesting, renewable energy, storage and innovative systems for the generation of energy from non-conventional sources, energy management, energy efficiency of buildings and processes.

**Signature**

GENOVA, 9/2/2021