

Curriculum Vitae

Vincenzo Bianco, *Ph.D.*

Personal Data

Family Name: **Bianco**
First Name: **Vincenzo**
Date of Birth:
Place of Birth:
Nationality:
E-mail:

Education

November 2011: Course of "Project Modeling in Excel" at the Amsterdam Institute of Finance. The course had the objective to study the different techniques for project financing and their quantitative modeling in Excel.

January 2008 – December 2010: PhD in Mechanical Engineering at the Seconda Università degli Studi di Napoli, discussing a thesis, supervised by Prof. O. Manca, entitled: "*Numerical simulation of fluid motion, heating and transport of nanoparticles in forced laminar or turbulent convection and under the influence of electric fields*"

November 2010: Course of "Valuation" at the Amsteram Institute of Finance. The course had the objective to study the main approaches for the financial evaluations of projects and companes.

December 2006 – awarding of the certification of **Chartered Master Engineering** in the first session of the year 2006 after passing the corresponding state exam at **the Seconda Università degli Studi di Napoli.**

November 2003 – March 2006: Master Degree in Mechanical Engineering *cum laude* at the Seconda Università degli Studi di Napoli, discussing a thesis, supervised by Prof. O. Manca and Prof. S. Nardini, entitled: "*Simulation of the thermal and fluidynamic fields in aircraft air-conditioning*". From April to October 2005 exchange student at the Technische Universitat Muenchen.

May 2004 – awarding of the certification of **Chartered Bachelor Engineering** in the second session of the year 2003 after passing the corresponding state exam at **the Seconda Università degli Studi di Napoli.**

October 2000 – July 2003: Bachelor Degree in Mechanical Engineering *cum laude* at the Seconda Università degli Studi di Napoli, discussing a thesis, supervised by Prof. O. Manca and Prof. S. Nardini, entitled: "*Numerical investigation on natural convention in divergent vertical channels*".

September 1994 – Luglio 2000: Scientific High School Diploma (100/100 grade) at Liceo Scientifico Statale "Eduardo Amaldi" di S. Maria C.V. (CE).

Professional Experience

January 2023 – in progress. Full Professor in Applied Energy (Fisica Tecnica Industriale, SSD ING-IND/10) at the Department of Engineering of the University of Naples "Parthenope". Responsible for teaching, research, and management activities within the university. Qualified to participate in committees for the awarding of the Italian National Scientific Qualification (ASN).

March 2022 – December 2022. Full Professor in Applied Energy (Fisica Tecnica Industriale, SSD ING-IND/10) at the Department of Mechanical, Energy, Management, and Transportation Engineering of the University of Genoa. Responsible for teaching, research, and management activities within the university. Qualified to participate in committees for the awarding of the Italian National Scientific Qualification (ASN).

January 2015 – February 2022. Associate Professor in Applied Energy (Fisica Tecnica Industriale, SSD ING-IND/10) at the Department of Mechanical, Energy, Management, and Transportation Engineering of the University of Genoa. Responsible for teaching, research, and management activities within the university. From April 2017, habilitated to the role of full professor position in Applied Energy (Settore Concorsuale 09/C2).

October 2012- December 2014. Researcher in Applied Energy (Fisica Tecnica Industriale, SSD ING-IND/10) at the Department of Mechanical, Energy, Management, and Transportation Engineering of the University of Genoa. Responsible for teaching and research. Habilitated to the role of Associate Professor in Applied Energy in May 2013 (Settore Concorsuale 09/C2).

December 2009 – October 2012: Senior Business Analyst at Enel Produzione SpA. In charge of study, analysis, and modeling of energy markets, particularly power, gas and CO₂ for different countries (i.e., Germany, France, Romania, Turkey, etc.) in order to provide long term outlook of prices and productions to support strategic decisions of the company. Participation to different work groups for the evaluation of new investments in electricity generation assets, particularly thermal power plants (USC coal, CCGT and OCGT) and hydro power plants.

July 2006 – July 2007: Business Analyst at Value Partners Management Consulting SpA. Execution of different management consulting projects for different companies (big Italian and international firms), in different area of business (TELCO, Food, Manufacturing, etc.) and in different functions (marketing, financial due diligence, industrial planning, etc.). Exposure to the top management (i.e. CEO, CFO, etc.) of the client companies.

Scientific activity

Research:

Investigations developed on different areas of energy and thermal sciences, with particular focus on the energy planning, energy management in civil and industrial sectors, innovative business models in the field of energy, CFD analysis and application of nanotechnologies to heat transfer.

- **Energy Planning:** this activity concerns the use of *top down* approaches, particularly econometric techniques and grey models, and *bottom up* methods by using detailed technical-economic models (i.e. market models for electricity or gas price forecasting) to analyze the future development, with different time horizons, of complex energy systems.

- **Energy management:** this research path focuses on the increase of energy efficiency and integration of renewables technologies in the civil and industrial sectors. In particular, some specific technologies and tools are developed and analyzed in detail. As well as, business modeling and strategic management issues are taken into account.

- **CFD Applications:** this investigation line regard the application of numerical modelling to the study of complex heat transfer problems. Different studies have been performed on the air conditioning of passenger cabin in executive aircrafts, on the analysis of the anti-icing system, on the cooling of onboard electronic equipment or on the simulation of vortex tubes for the contemporary generation of heat and cold.

- **Application of nanotechnologies to heat transfer:** this study has a twofold focus on nanofluids convection and nanotubes dielectrophoresis. Forced convection of nanofluids is studied in different conditions, e.g., laminar and turbulent flow, by using numerical methods, e.g. multi or single phase approaches. Performance analysis is developed on the basis of first and second law of thermodynamics. As for nanotubes, a numerical model is built in order to detect nanotubes behavior under the effect of dielectrophoretic force for micro-manufacturing purposes.

The research activity has been pursued in collaboration with world leading research institutions and collaborating with international recognized experts. Particularly:

- From May 2009 up to July 2009, visiting researcher at **University of California Riverside** in the research group headed by **Prof. Kambiz Vafai**. The activity focused on the implementation of analytical model to study the impact of nanofluids within heat pipe of different typology.
- From April 2008 up to July 2008, visiting researcher at **ETH Zurich** in the research group led by **Prof. Dimos Poulidakos**. The activity focused on the study, implementation and validation of a numerical model to simulate fluid motion, heating and transport of nanoparticles (nanotubes) under the influence of electrical fields (dielectrophoresis).

Reviewer for the following funding bodies:

- Ministero dell'Istruzione, Università e Ricerca Scientifica (MIUR, Italy). Reviewer for a scientific research projects proposed within the FIRB framework;
- European Union: Reviewer for scientific research projects proposed within the COST action and H2020 program. For different evaluations Prof. Bianco had the role of rapporteur;
- Czech Science Foundation: Reviewer for scientific research projects;
- Croatian Science Foundation: Member of the review panel;
- National Science Centre of Poland: Reviewer for scientific research projects;
- South African National Research Foundation: Reviewer for scientific research projects.

Editorial Board Memberships:

- Editor of the book series "Energy Systems: from Design to Management", published by CRC Press -Taylor & Francis Group;
- Associate Editor of the journal Energy & Environment published by SAGE (ISSN 0958-305x, ISSN Online 2048-4070) (Indexed in ISI e Scopus);
- Associate Editor of the journal Special Topics and Review in Porous Media: An International Journal published by Begell House (ISSN Print 2151-4798, ISSN Online 2151-562X) (Indexed in Scopus);
- Member of the Editorial Board of the journal Thermal Science and Engineering Progress published by Elsevier (ISSN: 2541-9049) (Indexed in ISI and Scopus);
- Member of the International Advisory Board of the journal Thermal Science (ISSN Print 0354-9836, ISSN Online 2334-7163) (Indexed in ISI and Scopus);
- Member of the Editorial Board of the journal Entropy (ISSN: 1099-4300) (Indexed in ISI e Scopus);
- Member of the Editorial Board of the journal Sustainability (ISSN: 2071-1050) (Indexed in ISI e Scopus);
- Member of the Editorial Board of the journal Energies (ISSN: 1996-1073) (Indexed in ISI e Scopus);
- Member of the Editorial Board of the journal Mathematical Problems in Engineering (ISSN: 1024-123X) (Indexed in ISI e Scopus);
- Member of the Editorial Board of the International Journal of Energy Economics and Policy (ISSN: 2146-4553) (Indexed in Scopus);
- Co-Editor the book "Heat Transfer Enhancement in Nanofluids" CRC Press - Taylor & Francis Group, 2015. ISBN: 9781482254006. In cooperation with O. Manca, S. Nardini and K. Vafai;
- Editor of the book "Analysis of Energy Systems: Management, Planning and Policy" CRC Press - Taylor & Francis Group, 2017. ISBN: 978-1-4987-7739-1.

- Guest Editor for a special issue entitled "The challenge-led special issue series: Thermal Energy Storage Design and Integration Challenges" for the journal Applied Thermal Engineering published by Elsevier (ISSN: 1359-4311) (Indexed in ISI and Scopus)
- Guest Editor for a special issue entitled "AIGE 2017" for the journal Thermal Sciences and Engineering Progress published by Elsevier (ISSN: 2541-9049) (Indexed in Scopus)
- Guest Editor for a special issue entitled "Challenges and Opportunities for a Sustainable Tourism Sector" for the journal Sustainability published by MDPI (ISSN: 2071-1050) (Indexed in ISI and Scopus)
- Guest Editor for a special issue entitled "Entropy Production in Turbulent Flow" for the journal Entropy published by MDPI (ISSN: 1099-4300) (Indexed in ISI and Scopus)

Reviewer for the following international journals:

Reviewer for the most important journals in the areas of energy, energy management and heat transfer, among these:

- Nature Energy (ISSN: 2058-7546) ISI/Scopus;
- Energy (ISSN: 0360-5442) ISI/Scopus;
- Applied Energy (ISSN: 0306-2619) ISI/Scopus;
- Energy Conversion and Management (ISSN: 0196-8904) ISI/Scopus;
- Energy and Buildings (ISSN: 0378-7788), ISI/Scopus;
- ASME Journal of Heat Transfer (ISSN: 0022-1481 Print, 1528-8943 Online), ISI/Scopus
- International Journal of Thermal Sciences (ISSN:1290-0729), ISI/Scopus;
- International Journal of Heat and Mass Transfer (ISSN: 0017-9310), ISI/Scopus;
- Energy Policy (ISSN: 0301-4215), ISI/Scopus;
- Technology Forecasting & Social Change (ISSN: 0040-1625), ISI/Scopus;
- Heat Transfer Engineering (0145-7632 Print,1521-0537 Online), ISI/Scopus;
- Energy Sources Part B: Economics, Planning and Policy (ISSN: 1556-7249; ISSN on line: 1556-7257), ISI/Scopus;

Prof. Vincenzo Bianco was several times awarded the recognition of **"Outstanding Contribution in Reviewing" by Elsevier** for the journals Energy, Applied Energy, Energy Conversion and Management, Renewable Energy, Solar Energy Materials and Solar Cells, etc. Furthermore, in 2019 he was awarded the prize of **"Outstanding Reviewer"** for the Journal of Energy Sector Management within **the Emerald Literati Award**.

Speaker in the following international conferences:

- Tenth International Conference on Advanced Computational Methods in Heat Transfer, held in Maribor (Slovenia) from 9th until 11th July 2008;
- ASME IMECE 2009, held in Boston (USA) from 31st October until 6th November 2008;
- 10th WSEAS International Conference on Applied and Theoretical Mechanics, held in Salerno (Italy) from 3rd to 5th June 2014;
- ASME ATI UIT 2015. Thermal Energy Systems: Production, Storage Utilization and the Environment. Napoli 17 - 20 May
- Development of Entrepreneurship: New Horizons. Organized by Stavropol State Agrarian University (Russian Federation) 22nd May 2015 (*Invited video lecture*)
- 10th Conference on Sustainable Development of Energy, Water and Environment System (SDWES), held in Dubrovnik (Croatia) from 27th September – 2nd October 2015 (*Invited Contribution*)
- 7th International Symposium on Advances in Computational Heat Transfer, held in Naples (Italy) from 28th May until 1st June 2017
- ASHRAE Ireland Chapter & IBPSA-Ireland Joint Research Symposium on Buildings Performance Analysis, held at Trinity College Dublin (Ireland), 28th-29th May 2018 (*Keynote Lecture*)
- 15th International Conference on European Energy Market (EEM 2018), held in Lodz (Poland) from 27th – 29th June 2018
- International Theoretical and Practical Conference on Alternative and Smart Energy (TPCASE 2018), held in Voronezh (Russian Federation) from 6th -8th December 2018 (*Plenary Speaker*)

- International Scientific Conference on Energy, Environmental and Construction Engineering (EECE – 2020), San Petersburg (Russian Federation) 19th – 20th November 2020 (*Key Note Speaker*)
- 3rd International Scientific Conference on Innovations in Digital Economy: SPBPU IDE-2021, San Petersburg (Russian Federation) 14th-15th October 2021 (*Key Note Speaker*)

Activities in international conferences:

- Chair of the Session "Energy and Environment" within the 10th Conference on Sustainable Development of Energy, Water and Environment System (SDWES), held in Dubrovnik (Croatia) from 27th September – 2nd October 2015
- Member of the Scientific Committee of Conference on the Sustainable Energy and Environment Development (SEED), held in Krakow (Poland) from 17th-19th May 2016
- Member of the Organizing Scientific Committee of the 7th International Symposium on Advances in Computational Heat Transfer, held in Naples (Italy) from 28th May until 1st June 2017
- Chair of the key note lecture 3-4 "Thermal Management of Concentrated Photo-electrochemical Energy Conversion and Storage Devices" by Sofia Haussener (EPFL), 1st June 2017, 7th International Symposium on Advances in Computational Heat Transfer, held in Naples (Italy)
- Chair of the session 4-1-C "Modeling of Thermal Management Systems I", 1st June 2017, 7th International Symposium on Advances in Computational Heat Transfer, held in Naples (Italy)
- Member of the Scientific Committee of the 2nd International Conference on the Sustainable Energy and Environment Development, Krakow (Poland) from 14th -17th November 2017
- Chair of the sessions "Smart Grids", "Distribution Systems" and "RES & Hydrogen" on the 15th International Conference on European Energy Markets (EEM 2018), held in Lodz (Poland) from 27th – 29th June 2018

Fellowships and Research Contracts:

- From 12/03/2009 to 12/09/2009, fellowship at the Department of Aerospace and Mechanical Engineering of the Seconda Università degli Studi di Napoli, for the "Study and analysis of thermal and fluidynamics phenomena in air-conditioning of aircrafts". Scientific Supervisor: Prof. Sergio Nardini;
- From 03/12/2008 to 03/01/2009, scientific cooperation with the Department of Environmental Sciences of the Seconda Università degli Studi di Napoli, for "The analysis of algorithms and simulation activities for analysing territorial energy balances". Scientific Supervisor: Prof. Antonio D'Onofrio;
- From 14/03/2008 to 14/07/2008, fellowship at the Department of Software Engineering of the Seconda Università degli Studi di Napoli, for "Energy consumption data collection and analysis to estimate potential energy savings". Scientific Supervisor: Prof. Alfredo Testa;
- From 08/10/2007 to 30/11/2007, scientific cooperation at the Department of Aerospace and Mechanical Engineering of the Seconda Università degli Studi di Napoli, for the "Development of numerical simulation models concerning air-conditioning in aircrafts". Scientific Supervisor: Prof. Sergio Nardini;

Teaching activities

1- Teaching activities at Bachelor and Master level at University of Genoa

- From the academic year 2020-2021 professor for the course of "Management of Energy Sources" (6 ECTS) within the Master Course in Mechanical Engineering – Energy and Aeronautics Orientation.
- From the academic year 2018-2019 professor for the course of "Heat and Mass Transfer in Buildings" (5 ECTS in English) within the Master Course in Engineering for Buildings Retrofitting
- From the academic year 2015-2016 professor for the course of "Heat Transfer" (6 ECTS) within the Master Course in Mechanical Engineering – Design and Production Orientation.
- From the academic year 2012-2013 to 2018-2019 professor for the course of "Applied Thermodynamics" (9 ECTS) within the course of "Building and Architectural Engineering"

- For the academic year 2012-2013 professor for the course of "Heat Transfer" (6 ECTS in English) within the Master Course in "Environmental and Energy Engineering"
- For the academic year 2012-2013 assistant professor (34 hours) for the course of "Applied Thermodynamics" within the Bachelor course in Mechanical Engineering

2- Other Teaching Activities

- For the academic year 2017-2018 professor of the course "Energy Efficient Buildings" (18 hours in English) within the specialistic post-degree diploma in "Energy Efficient Buildings" within the PROEMED international project financed by EU
- For the academic year 2016-2017 professor of the courses "Applications of Heat Transfer" and "Energy Planning" (24 hours in English) within the specialistic post-degree diploma "Energy Efficient Buildings" within the MARUEEB international project financed by EU
- Professor of the course "Mathematical Model for Energy Forecasting" (30 hours) within the post-degree specialistic course PON EFFEDIL (PON_02_00323_2938699) financed by the Italian Ministry of the University and Research and held at Università degli Studi del Salento from 23rd to 26th June 2015 (*Assignment given based on a public selection evaluating the individual academic activity*)
- Professor for the module "Thermal Measurement Laboratory" within the PAS Course (Habilitation for High School Teacher) directed to high school teacher and held at the Università degli Studi di Genova in the academi year 2013-2014
- For the academic year 2013-2014 professor of the module "*Energy Market. Fundamentals and Long-Term Perspective*" (4 hours in English) within the specialistic post-degree diploma in "Energy Saving for Environmental Protection and Control" organized by Università degli Studi di Genova within the European project Tempus GreenMA
- Member of the commission for the State Exam for the habilitation to be Chartered Engineering held at Università degli Studi di Genova in the year 2013
- From the academic year 2012-2013 supervisor of many bachelor and master theses for students at the Polytechnic School
- From the academic year 2007-2008 co-supervisor of bachelor and master theses in engineering at Seconda Università degli Studi di Napoli
- Member of many modules' examination commissions as well as bachelor, master and PhD graduation commissions at the Università degli Studi di Genova

3- Internation Teaching Activities

- From the academic year 2020-2021 lecturer for the course "Digital Resource in Scientific Research" (20 hours in English) for the Master in Civil Engineering at the Institute of Civil Engineering of the "Peter The Great" St. Petersburg Polytechnic University (Russian Federation) (*Activity Financed by the Hosting Institution*)
- From the academic year 2019-2020 chair of the Graduation Commission (State Examination Committee) for the Master in "Governance of Science, Technology and Innovation" at the Higher School of Economics Moscow (Russian Federation) (*Activity Financed by the Hosting Institution*)
- Invited lecture entitled "Identification of the Economic Factors Affecting Energy Consumption and Carbon Emissions" (3 hours in English) held the 4th April 2019 at the "Peter The Great" St. Petersburg Polytechnic University (Russian Federation) within the 1st ABIRE Spring School on Bio-refinery and Bio-resource Management, organized by "Peter The Great" St. Petersburg Polytechnic University and by Technical University of Hamburg (Germany) with the support of Federal Ministry of Education and Research of Germany (*Activity Financed by the Hosting Institution*)
- Lectures of "Energy Policy" (8 hours in English) held from 15th to 19th April 2019 at the AGH Technical University of Krakow (Poland) (*Activity financed with an Erasmus+ for teaching fellowship*)

- Lectures on "Investment Analysis of Energy Projects" held from the 1st to 5th April 2019 (9 hours in English) at the "Peter The Great" St. Petersburg Polytechnic University (Russian Federation) (*Activity Financed by the Hosting Institution*)
- Invited seminar entitled "Decomposition of Energy Consumption & Carbon Emissions – Identifying the Economic Factors Affecting Energy Consumption and Carbon Emissions" (4 hours in English) held the 29th October 2019 at the Technical University of Nurnberg (Germany) (*Activity Financed by the Hosting Institution*)
- Member of the commission for the final PhD examination (Summer Session 2018) at the University College Dublin (Ireland)
- Invited seminar entitled "Natural gas to electricity fuel switching in buildings and its impact on the Italian power market" held the 29th May 2018 at the University College Dublin (Ireland) (*Activity Financed by the Hosting Institution*)
- Cycle of lectures entitled "Economic valuation of energy efficiency measures in buildings" held from 12th to 14th February 2018 (12 hours in English) at Tambov State Technical University (Russian Federation) (*Activity Financed within the E+ project CBHE MARUEEB*)
- Cycle of lectures entitled "Heat Transfer in Buildings" (8 hours in English) held from 15th to 16th February 2018 at the Voronezh State University of Civil Engineering and Architecture (Russian Federation) (*Activity Financed within the E+ project CBHE MARUEEB*)
- Cycle of lectures entitled "Economic Analysis of Energy Efficiency" held from 20th to 23rd March 2018 (6 hours in English) at the American University of Armenia (Yerevan, Armenia) (*Activity Financed within the E+ project CBHE MARUEEB*)
- Lectures on "Decomposition of Energy Demand – Identifying the factors affecting energy demand", 27th-29th April 2017 (8 hours in English) at the Universidade Nova de Lisboa, (Portugal) (*Activity financed with an Erasmus+ for teaching fellowship*)
- Lectures on "Economic and Financial Analysis of Energy Efficiency Interventions" from 20th to 23rd November 2017 (10 hours in English) at the "Peter The Great" St. Petersburg Polytechnic University (Russian Federation) (*Activity Financed within the E+ project CBHE MARUEEB*)
- Lectures on "Analysis of Energy Efficiency in Buildings" held from 20th to 23rd November 2017 (10 hours in English) at the "Peter The Great" St. Petersburg Polytechnic University (Russian Federation) (*Activity Financed within the E+ project CBHE MARUEEB*)
- Member of the commission for the final PhD examination (Summer Session 2015) at the Universidad Politecnica de Valencia (Spain)
- From 15th February to 30th May 2015, development for the Ural Federal University (Russian Federation) of an online course (video lectures, teaching material, questions, and case studies) entitled "The Problem of Thermal Protection in Buildings" (*Activity financed by the host institution*)
- Cycle of lectures entitled "Economic Analysis of Energy Efficiency" held in various universities of Russian Federation within the European project TEMPUS "GreenMA":
 - Tambov State Technical University, 20th-22nd October 2014, 10 hours in English
 - Voronezh State University of Architecture and Civil Engineering, 23rd-25th October 2014, 10 hours in English
 - "D. Mendeleev" University of Chemical Technology of Russia, 1st-3rd December 2014, 10 hours in English
 - Vladimir State Technical University, 4th-5th December 2014, 10 hours in English
 - Stavropol State Agrarian University, 22nd-24th April 2015, 12 hours in English
- Lecture entitled "Heat Conduction" (16 hours in English) held at the Ural Federal University (Russian Federation) within the European project TEMPUS "GreenMA", 10th-13th November 2014

Projects in Competitive Selections

Horizon Europe "RES4CITY" Project (2022-2025). Role: Coordinator of the UNIGE and UNIPARTHENOPE research groups, work package leader, and member of the project "steering committee". The project as the goal to study solutions for the implementation of renewables in cities. Prof. Bianco coordinates a study on the most suitable technologies for RES integration in urban contexts.

UKRENERGY E+ CBHE Project (2023-2026). "Master Degree in Innovative Technologies in Energy Efficient Buildings for Ukrainian Universities and Stakeholders". Role: **Scientific Coordinator of the Project.** European project coordinated by UNIGE in cooperation with Ukrainian and European universities. The project goal is to support the partner universities in the design and implementation of master courses focused on the energy efficiency in buildings. An intensive program of capacity building activities was implemented during the project.

Horizon 2020 "RenOnBill" Project (2019-2022). Role: Coordinator of the UNIGE research group, work package leader, and member of the project "steering committee". The project as the goal to study on bill schemes to support the implementatin of energy efficiency measures. Prof. Bianco coordinated a study on the potential impact of energy efficiency in Italy, Spain, Lithuania, and Germany, and has conceived together with UNIGE research group a tool for the probabilistic analysis of the energy efficiency projects. RenOnBill Project has beed awarded the **Citizen's Awards within the European Sustainable Energy Week 2021 organized by the European Commission.**

PRIN Project 2017F7KZWS (2018-2022) "Heat Transfer and Thermal Energy Storage Enhancement by Foams and Nanoparticles". Role: **coordinator of the UNIGE research group.** The project is coordinated by the University of Campania and includes Turin Polytechnic, University of Bologna, University of Padua, and University of Naples among the participants. UNIGE role is that to develop numerical analysis and simulation for thermal storage systems with a particular focus on phase change materials and nanofluids.

MySun E+ CBHE Project (2020-2023) "Malaysia Sustainable Campus Network". Role: participant to the project. The project is coordinated by the University of Alicante. The goal is to develop the concept of sustainable campus in Malaysian universities. Prof. Bianco supports Malaysian universities in the development of a MOOC for the implementation of teaching activities related to campus sustainability. Moreover, Prof. Bianco has been president of different commissions for the selection of qualified personnel to employ in this project.

MERGE E+ CBHE Project (2020-2023) "Improving Internationalisation practices in South Asian Higher Education". Role: Participant to the project. The project is coordinated by UNIGE and developed in cooperation with universities from India, Nepal, Afghanistan, and Europe. The aim is to enforce the internationalization strategies of the partner universities and the organization of their international relation offices. Prof. Bianco developed an examplary internationalization strategy plan for the partner universities. Moreover, Prof. Bianco has been president of different commissions for the selection of qualified personnel to employ in this project.

PROEMED E+ CBHE Project (2017-2021) "Boosting environmental protection and Energy Efficient Buildings in the Mediterranean Region". Role: Scientific Coordinator of the Project. Europea project coordinated by UNIGE in cooperation with universities from Tunisia, Algeria, Morocco, and Europe. The project goal is to support the partner universities in the design and implementation of master courses focused on the energy efficiency in buildings. An intensive program of capacity building activities was implemented during the project.

Financing of Basic Research Activities (2017-2018). Financing by the Italian Ministry of Education, University and Research (MIUR) of basic research activities. The funds were attributed according to the results of the personal research activity evaluated by using bibliometric parameters.

MARUEEB Progetto E+ CBHE (2016-2019) "Master Degree in Innovative Technologies in Energy Efficient Buildings for Russian & Armenian Universities and Stakeholders". Role: **Scientific Coordinator of the Project.** European project coordinated by UNIGE in cooperation with Russian, Armenian, and European universities. The project goal is to support the partner universities in the design and implementation of master courses focused on the energy efficiency

in buildings. An intensive program of capacity building activities was implemented during the project.

Qantus Tempus Project (2013-2016) "Qualification Framework for Environmental Studies at Ukrainian Universities". Role: Participant. Project coordinated by SGGW of Warsaw where UNIGE was a partner. Prof. Bianco coordinated a cycle of seminars on the "European Qualification Framework" directed to the senior lecturers of the Ukrainian universities participating to the project.

GreenMA Tempus Project (2012-2015) "Training and Master in Innovative Technologies for Energy Saving and Environmental Control for Russian Universities Involving Stakeholders". Role: **WP coordinator** and participant to the main project activities. The project was coordinated by UNIGE with participation of Russian and European universities. The project goal was the design and implementation of courses related to energy sustainability in six Russian universities. An intensive program of capacity building activities was implemented during the project and research cooperation started, e.g., with the Ural Federal University of Ekaterinburg.

Management Activities

- **Member of the Scientific Committee** for the PhD in Mechanical, Energy, and Management Engineering at University of Genoa since 10/06/2013.
- **Member of the Management Committee of the High-Level Academic Course** in Science and Technology of Sustainability within the Institute of High Level Study of the University of Genoa since 22/02/2017.
- **Member of the Management Committee of** the Master Courses in "Energy and Sustainability" at the University of Genoa since May 2021.
- **Chair of the Commission for the admission** to the Master Courses in Mechanical Engineering at University of Genoa since September 2021.
- **Member of the Scientific Research Commission** at the Department of Mechanical, Energy, Management, and Transportation Engineering at the University of Genoa since November 2021.
- **Member of the Commission for International Relations** at University of Genoa from 24/11/2017 to 31/10/2020
- **Member of the Working Group** for innovative teaching methodology at University of Genoa from 26/05/2016 to 02/09/2017
- For the academic years 2016-2017 and 2017-2018 Director of the Post-Degree Specialization Course in "Energy Efficient Buildings" (24 ECTS and 240 hours of lectures in English) organized in the framework of the European Projects E+ CBHE MARUEEB e PROEMED
- **Member and Chair of Commissions** for recruiting scientific and administrative personnel in different Italian universities
- **Promoter and referent for the following Erasmus agreements (i.e., students and lecturers exchange agreements)** with the following universities: AGH Krakow, University of Cyprus, Slovak University of Technology, Universidade Nova de Lisboa, Universidad Politecnica de Madrid, VMU Kaunas, National Polytechnic University of Athens, University of Lubiana, University of La Rochelle, Technical University of Hamburg.
- **Promoter and responsible for an Erasmus+ KA107** (2018-2020) project with the Higher School of Economics Moscow (Russian Federation) for the exchange of lecturers and students with the University of Genoa.
- **Promoter and responsible for international cooperation agreements** between University of Genoa and the following universities: Voronezh State Technical University (Russian Federation), Tambov State Technical University (Russian Federation), University of Mostar (Bosnia-Erzegovina)

List of Publication

Prof. Vincenzo Bianco is included in the Stanford Ranking Stanford of highly cited authors (Top 2%) (<https://doi.org/10.1371/journal.pbio.3000918>).

Bibliometric Indicators (11/08/2024).

Scopus. Indexed Documents: 119; H-Index: 31; Citations: 4120.

Papers in Indexed Journals

- 1- Bianco, V., Cascetta, F., Nardini, S. Application of nanofluids in industrial processes. The case of food processing. (2024) *Thermal Science and Engineering Progress* 53, 102726. <https://doi.org/10.1016/j.tsep.2024.102726>
- 2- De Rosa, M., Glumac, O., Bianco, V., Pallonetto, F. A micro-credential approach for life-long learning in the urban renewable energy sector. (2024) *Renewable Energy* 228, 120660. <https://doi.org/10.1016/j.renene.2024.120660>
- 3- Bianco, V., Cascetta, F., Nardini, S. Analysis of the carbon emissions trend in European Union. A decomposition and decoupling approach. (2024) *Science of the Total Environment* 909, 168528. <https://doi.org/10.1016/j.scitotenv.2023.168528>
- 4- Scarpa, F., Bianco, V. Improving the performance of room temperature magnetic regenerators using Al₂O₃-water nanofluid. (2024) *Applied Thermal Engineering* 236, 121711. <https://doi.org/10.1016/j.applthermaleng.2023.121711>
- 5- Bianco, V., Cascetta, F., Nardini, S., Plomitallo, R.E. An Italian case study of life cycle assessment for a drinking water dispenser. (2024) *Energy and Environment*, <https://doi.org/10.1177/0958305X241266537>
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Data

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