PROFESSIONAL CURRICULUM

Eng. Emiliano Bronzino
Galleria Mazzini n°1 internal 10
16121 - Genoa

ASSIGNMENTS, SPECIALIZATIONS, SCIENTIFIC ACTIVITY, AWARDS IN COMPETITIONS, MENTIONS

Education

1991-1992 Graduated as an INDUSTRIAL ELECTRONICS EXPERT at the Galileo Galilei Industrial Technical Institute of Imperia with a score of 54/60.

14/10/1999 Graduated in MECHANICAL ENGINEERING at the University of GENOA with a score of 107/110.

THESIS: "THEORETICAL AND PRACTICAL STUDY OF APPLICATIONS OF ELECTROTHERMODYNAMIC AIR CONDITIONING."

ADVISORS: Prof. Eng. Luigi Fantini

Prof. Eng. Giovanni Guglielmone,

CO-ADVISOR: Eng. Piergiulio Avanzini.

Study of Ligurian climatology for the use of air and seawater heat pumps for civil air conditioning.

Economic feasibility analysis of a heat pump system (air and seawater) for the air conditioning of the San Benigno complex in Genoa Sampierdarena, where the Ligurian office of the National Research Council is located.

1999 Licensed to practice the profession of ENGINEER.

Enrolled in the ORDER OF ENGINEERS OF THE PROVINCE OF IMPERIA from June 26, 2001, to December 31, 2005.
Registration number 638.

Transferred to the ORDER OF ENGINEERS OF THE PROVINCE OF GENOA from December 31, 2005.
Registration number 8863A.

Qualified to act as a SAFETY COORDINATOR IN THE DESIGN AND CONSTRUCTION PHASE.
EGE (Energy Management Expert) in the industrial sector, certified with number EGE011.
Energy Certifier for the Liguria Region, number 687.

2002-2005 Doctorate in TECHNICAL PHYSICS with a scholarship funded by Enel for the energy and environmental analysis of electrotechnologies for civil and industrial air conditioning, including advanced Climare technology.

29/04/2005 Doctor of Research in Technical Physics, during which he worked on heat pump systems using water for the study of geothermal-type heat pumps.

From September 2005 to September 2006 He held a research grant.

Research and Teaching Activities

From July 2000 to today:

Collaboration with the Department of Thermoenergetics and Environmental Conditioning of the University of Genoa for an economic feasibility study for the air conditioning system of the Mole Vanvitelliana in Ancona.

Collaboration with the Department of Thermoenergetics and Environmental Conditioning of the University of Genoa for the design of the air conditioning system for the former Saiwa building.

Collaboration with the Department of Production Engineering, Thermoenergetics, and Mathematical Models (DIPTEM) of the University of Genoa for a "Review of system solutions found in the literature regarding geothermal electric heat pumps."

Contract for teaching support for graphic informatics exercises in the academic years 2004-2005 and 2005-2006 for the DIPTEM Department of Engineering.

Contract for teaching support for the course on technical physics in the academic year 2004-2005 for the DIPARC Department, Faculty of Architecture.

Since 2003 He has held seminars on the use of the mc4 software for the verification of Law 10/91 and subsequent modifications, and the design of thermal systems for the DIPARC Department, Faculty of Architecture.

Starting in the 2007 academic year, he is a subject matter expert and exam assistant for the Technical Physics and Technical Systems course - Prof. Isetti Carlo, DIPARC Department, Faculty of Architecture.

Collaboration with ARE Liguria S.p.A. for teaching during the course for heat pump installation technicians.

Collaboration with ARE Liguria S.p.A. for seminars on heat generators in the CHANGELAB project.

In 2007, collaboration with the Province of Genoa for teaching the subject "Air handling systems" in the "Training course for managers of air handling systems."

In 2008, collaboration with the Savona Province Building School for teaching the course "Expert in energy assessments in the real estate sector."

In 2009, he gave several hours of lectures for Tecnocivis in the refresher course "Energy certification of buildings."

In 2009, he was a teacher in the "Course for public entity employees" held by ARE Liguria S.p.A.

In 2009, he was a teacher in the course for "Renewable energy management technician" held by ASFOR.

In 2011, he was a teacher in the course "Corporate social responsibility, innovation, energy efficiency Module: Assessment of corporate energy needs" held by the Ligurian Center for Productivity.

For the academic years 2023-2024 and 2024-2025, he has been a contract professor in the course "Renewables sources and technical plant design" - Master's Degree in Architectural Composition, Faculty of Architecture - University of Genoa.

Work Experience

From July 2000 to today:

Collaboration with PROGETTISTI ASSOCIATI of Milan (Genoa office) for economic feasibility studies for the air conditioning system of the Torre di Francia (San Benigno complex in Genoa Sampierdarena), home of the CNR of Genoa.

Collaboration with PROGETTISTI ASSOCIATI of Milan (Genoa office) for the executive project for the air conditioning system of the Torre di Francia (San Benigno complex in Genoa Sampierdarena), home of the CNR of Genoa.

Collaboration with the company CLIMARE of Sestri Levante for economic feasibility studies for civil air conditioning systems (exhibition buildings, offices, residential and hotel buildings) commissioned by CESI.

Collaboration with the company CLIMARE of Sestri Levante for the drafting of handouts for a course for refrigeration technicians.

Collaboration with the company CLIMARE of Sestri Levante for the organization of data collected by the monitoring system of the seawater heat pump air conditioning system serving the Abbey of the Dominicans.

Collaboration with Dr. Eng. Ilmo Lanza in a pre-feasibility study for a cogeneration plant for the Villa Scassi hospital in Sampierdarena (Genoa).

Collaboration with Dr. Eng. Ilmo Lanza for the final design of the air conditioning system for the morgue of the Villa Scassi hospital in Sampierdarena (Genoa).

Collaboration with the company CLIMARE for the economic feasibility study for a seawater heat pump air conditioning system for the Abate Zanetti center in Murano (Venice).

Collaboration with the company CLIMARE for the design of the monitoring system for the lake water heat pump system serving Villa Olmo in Como.

Collaboration with the company CLIMARE for the analysis of data acquired over two seasons from the monitoring system serving Villa Olmo in Como.

Collaboration with the Department of Thermoenergetics and Environmental Conditioning of the University of Genoa for the study and energy analysis of a residential complex in Genoa Quarto using active and passive solar systems.

Law 10/91 and final and executive design of the mechanical systems for the school in Sulbiate (MI).

Collaboration with the company ERGON for the executive design of the mechanical systems serving the San Martino Hospital Emergency Room in Genoa.

Collaboration with the company ERGON for the executive design of the fire-fighting system and the discharge of rainwater and black water serving the COGEPARK parking lot in Genoa.

Law 10/91 and final design of the mechanical systems serving the school complex in Malpensata, Costa Volpino municipality (BG) (nursery, elementary, middle school, gym, and laboratories).

Law 10/91 and executive design of the mechanical systems serving the nursery school of the school complex in Malpensata, Costa Volpino municipality (BG).

Final and executive design of the mechanical systems serving the soccer field in Ronco Briantino (MI).

Collaboration with the company ERGON for the final design of a seawater heat pump system serving the buildings that will house the Port Authority in Bari.

Collaboration with the company ERGON for the energy analysis of Ansaldo Energia's properties in Genoa Campi.

Feasibility study for the use of condensing and biomass boilers for the school in Isola del Cantone (GE).

Final and executive design of the biomass boiler plant for the school in Isola del Cantone (GE).

Law 10/91 for the renovation of the attic of a building located in Recco (building permit 200/03).

Law 10/91 for the renovation of real estate units in via Buranella n° 67 (year 2005).

Law 10/91 for "Renovation of real estate units in Comacchio in Lido delle Nazioni via Repubblica di San Marino 83, 85, 87 and viale Cecoslovacchia 2 (October 2005)."

Law 10/91 and design of mechanical systems for the Blondel middle school in Casirate d'Adda (BG) (year 2007).

Law 10/91 and design of mechanical systems for a new construction project in sectors U1 and U2 in via Guzzina in Cologno Monzese - Azienda Lombarda Edilizia Residenziale Milano (year 2007).

Final-executive design of the mechanical systems serving the New Intensive Care Unit of the Monoblocco pavilion of the San Martino hospital in Genoa.

Final-executive design of the mechanical systems serving the New Transplant Unit of the Monoblocco pavilion of the San Martino hospital in Genoa.

Survey of the state of the heating plants serving the A.R.T.E. buildings in Genoa and drafting of energy audits.

Executive design and support to the Construction Management of the heating/cooling heat pump system for the Relais del Maro hotel, Borgomaro (IM).

Design of a heat pump heating system integrated with a photovoltaic system for the basal heating of greenhouses for basil cultivation in Arenzano.

Executive design and construction management of an air conditioning system for a bed and breakfast in Genoa Pontedecimo integrated with an innovative photovoltaic system.

Executive design and construction management of a conversion from diesel to gas of the heating plant for the Condominio in via Magnaghi n° 1 in Genoa (capacity 1000 kW).

Executive design and construction management of a conversion from diesel to gas of the heating plant for the Condominio in via Bettolo n° 139 in Genoa (capacity 114 kW).

Design and construction management of a new system for the regulation and allocation of heating costs, according to Standard 10200, as required by DLgs 102/14, for the Condominio in via Vannucci n° 7 (about 40 apartments).

Design and construction management of a new system for the regulation and allocation of heating costs, according to Standard 10200, as required by DLgs 102/14, for the Condominio in via Bettolo n° 139 (about 15 apartments).

Design and construction management of a new system for the regulation and allocation of heating costs, according to Standard 10200, as required by DLgs 102/14, for the Condominio in via Paleocapa n° 21 (about 20 apartments).

Design of a new system for the regulation and allocation of heating costs, according to Standard 10200, as required by DLgs 102/14, for the Condominio Verde Mare in Recco (about 250 apartments).

Design and construction management of a new system for the regulation and allocation of heating costs, according to Standard 10200, as required by DLgs 102/14, for the Condominio dei Fiori in Recco (about 100 apartments).

Design and technical support to the company RAEL for the mechanical systems serving the new centralized laboratories - San Martino Hospital Genoa.

Design of mechanical systems serving the new headquarters of the Azienda Chimica Genovese in the former Centrale del Latte in Genoa.

Design and Construction Management of mechanical systems serving about 30 residential units in via Bensa 2 in Genoa.

Construction management and safety coordinator for the installation of the New Gammacamera, Sommariva pavilion - San Martino Hospital- Genoa.

Design and Construction Management of mechanical systems serving about 30 residential units in vico Pellicceria in Genoa.

Since 2007, he has been collaborating with Are Liguria, serving as an Inspector for the verification and control of the energy systems of hospitals in Liguria according to the contractual agreements between the Region and Micenes, and the Region and ARE.

Interventions on Energy Efficiency and the Use of Renewable Sources

Within his university studies, doctorate, and research activities, he has dealt with the application of air and ocean-thermal heat pumps for the summer and winter air conditioning of residential and tertiary sector buildings.

He has also deepened the study of the application of geothermal heat pumps, collaborating in the design of the system for the company nursery of the San Martino Hospital in Genoa and subsequently dealing with the analysis and monitoring of its operation and energy efficiency.

In his professional work, he has collaborated with Engineering Companies and CESI for technical-economic feasibility studies for the application of ocean-thermal heat pumps in civil air conditioning (such as the San Benigno complex in Genoa Sampierdarena and the buildings that will house the Port Authority in Bari), exhibition, and hotel sectors.

He has collaborated in carrying out feasibility studies for the application of cogeneration plants for the Villa Scassi (Genoa) and San Martino hospitals.

He has collaborated with the company ERGON for the energy analysis of the buildings owned by Ansaldo Energia in Genoa Campi.

He performed a feasibility study for the use of condensing and biomass boilers for the Municipality of Isola del Cantone (GE), dealing with the executive design of the wood chip heating plant and subsequent construction management.

He received assignments from ARE Liguria S.p.A. to perform energy audits for the Municipalities of Cosseria (SV), Celle Ligure (SV), Sassello (SV), and Santo Stefano di Magra (SP).

He collaborated with ARE Liguria S.p.A. for the definition of the technical specifications for the Heat Management contracts for the Municipalities of Castelnuovo Magra (SP) and Lerici (SP).

In the field of solar energy, he collaborated with the Department of Thermoenergetics and Environmental Conditioning of the University of Genoa for the study and energy analysis of a residential complex in Genoa Quarto using active and passive solar systems.

He was commissioned by the Municipality of San Remo to perform the executive design of the hot water production systems serving the Municipal Swimming Pool and the "Casa Serena" Residence for the Elderly.

He carried out the construction management for the aforementioned works.

He collaborated with ARE Liguria S.p.A. for the preliminary design of solar thermal systems serving:

- The sports hall of Loano (SV).
- The Municipality of Borghetto Santo Spirito (SV).
- The Center for the Elderly of the Municipality of Tiglieto (GE).
- The Sports Center of the Municipality of Vendone (SV).

He collaborated with ARE Liguria S.p.A. for the preliminary design of solar photovoltaic systems serving:

- The Municipal school in the Municipality of Mignanego (GE).
- The Alta Val Trebbia Mountain Community building in the Municipality of Montebruno (GE).
- The Multipurpose Center of the Municipality of Ronco Scrivia (GE).

He collaborated with the company STE of Genoa for the drafting of the technical reports necessary for participation in the Liguria Region's Call for Bids for the financing of interventions aimed at energy saving and the use of renewable sources for the Municipality of Olivetta San Michele (IM) and the new multi-specialty clinic of ASL 1 in Imperia (IM).

He collaborated with the Queirolo Technical Studio for the design of a heat pump loop system for heat recovery from manufacturing processes for the production of high-density polyethylene pipes as part of the executive design of the industrial warehouse of the Georg Fischer S.p.A. company.

He oversaw the construction management related to the mechanical systems and the thermal-refrigeration plants of the factory (current capacity about 1000 kW).

He performed the executive design and construction management of the district heating system serving the residential buildings at via Acerbi numbers 13-15-17-19-21-25-27-34-36-38 in Genoa Sturla (GE).

Executive design and construction management for the installation of an energy-saving heat generator at the La Massa School Complex in the Municipality of Albisola Superiore.

Executive design and construction management of the thermal insulation and energy production systems from renewable sources (photovoltaic and wind) for the La Massa School Complex in the Municipality of Albisola Superiore.

He collaborated with ARE Liguria S.p.A. in the PEPESEC project (Partnership Energy Planning as a tool for realising European Sustainable Energy Communities).

He collaborated with the company Spes Consulting in the design of the forest biomass plant for the production of thermal energy serving the municipal buildings of Montaione (FI).

He collaborated with the company SAIC and RINA for the drafting of the maintenance manual for the mechanical systems serving the ENI headquarters in Tripoli (Libya), dealing with on-site surveying and the elaboration of instructions.

He collaborated with the company D'Appolonia S.p.A. for the Feasibility Study and Subsequent Design of Energy Saving Interventions at the Tetovo University Campus, Macedonia."

He collaborated with the company D'Appolonia S.p.A. for the assignment of "Technical Assistance to D'Appolonia Team in the Energy Audit and Energy Analysis of Dnipropetrovsk Integrated Retail Park, Ukraine, and Minsk High Technology Park, Belarus."

He collaborated with the company D'Appolonia S.p.A. for the assignment of "Technical Assistance to D'Appolonia Team in the Energy Performance Assessment of mixed-use real estate complex "Old Mill", Belgrade, Serbia."

He collaborated with ARE Liguria S.p.A. for activities related to the "Covenant of Mayors - Municipality of Genoa" project and for the drafting of the Regional Environmental Energy Plan (PEAR) and the development of an electronic spreadsheet for the statistical analysis of the energy savings achievable following energy efficiency interventions in residential building heating.

For the Municipality of Montalto Carpasio (IM), he carried out the Design, Construction Management, and Safety Coordinator for the energy efficiency interventions at the municipal building and the civil protection headquarters in Montalto Ligure (IM), via Parlamento 39. He drafted an energy diagnosis for access to Filse funding and followed the procedure to apply for the Conto Termico.

For the Metropolitan City of Genoa, he carried out the Design, Construction Management, and Safety Coordinator for the energy efficiency interventions at the Laboratories Building - Primo Levi School - Borgofornari (GE).
He drafted an energy diagnosis for access to Filse funding and followed the procedure to apply for the Conto Termico.

For the company Verdenergia s.r.l., ESCO, as an Energy Management Expert (EGE), he drafted the Energy Diagnosis for Parco Benessere Bellavita - via della Valletta 170-15122 Alessandria (AL).

Study of the types of configurations allowed for the valorization and incentivization service of shared electricity, produced from renewable sources (as foreseen by the GSE: Groups of renewable energy self-consumers, Renewable energy communities CER).

Appraisal n 13925 - Assignment for the safety design of energy efficiency works for the Ministry of Defense Air Force Military Institute of Aeronautical Sciences building in Florence (buildings n 2, 3, 4, 17) Ministry of Infrastructure and Transport Interregional Public Works Department.

DATE: 27/08/2025

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