europass Curriculum vitae

PERSONAL INFORMATION

Edoardo Alessio Piana

Brescia (Italy)

edoardo.piana@unibs.it

POSITION

Research associate (with tenure)

WORK EXPERIENCE

10/01/2005–Present

Research associate (with tenure)

University of Brescia, Department of Mechanical and Industrial Engineering
Via Branze 38, 25123 Brescia (Italy)

Main research fields

- Sound insulation properties of composite and precast panels
- Sound absorption properties of innovative materials
- Acoustic meta-materials
- Noise from high-voltage overhead transmission lines
- Sound propagation in ducts
- Design of original measurement instrumentation for building, environment and automotive fields

Main positions held

- Founder and responsible of the Applied Acoustics Laboratory, certified to ISO 9001
- Teacher of 'Applied Acoustics', former 'Applied Acoustics Laboratory' (A.Y. 2004–2005 – ongoing)
- Co-teacher of 'Heat Transfer and Fluid Dynamics' for the degree course in Architecture and Building Engineering (A.Y. 2009–2010 – ongoing)
- Teacher of 'Environmental applied physics and Energy Systems' for the Environment and Workplace Prevention Techniques Course (A.Y. 2004–2005 – ongoing)
- Teacher of 'Fundamentals of acoustics' (18 hours) for the PhD course in 'Engineering and Applied Sciences', A.Y. 2014–2015, at the University of Bergamo, Italy (November – December 2015)
- Supervisor of several Bachelor, Master and PhD dissertations
- Author of several contributions to national and international conferences and scientific journals
- Regular peer reviewer for international journals in the field of Acoustics and Vibration
- Scientific coordinator in the 'NINIVE', NanoINtonaco Isolante a base di Vetro Ecologico (ecologic glass-based insulating nano-coating) research project, financed by MIUR and Lombardy Region (2013 – 2016)
- Lecturer in seminars on Environmental Acoustics for the PhD course in 'Engineering and Applied Sciences', XVIII, XIX and XXI cycles, at the University of Bergamo, Italy
- Lecturer in several conferences on environmental acoustics, sound insulation of building elements and legislative framework on occupational exposure to noise and vibration for professional associations of Engineers and of Architects of Brescia province (2006 – ongoing)
- Member of 'Acoustics' committee of the Italian National Institute of Standardisation (UNI) (October 2005 – ongoing)
- Fellow of the Italian National Research Council (CNR) for research purposes (December 2017 – ongoing)

Academic discipline

ING-IND/11

07/01/2002–09/01/2005

Graduate technician D/D1

University of Brescia, Faculty of Engineering, Brescia (Italy)

01/01/1991–31/12/1999

Collaborator in a professional office for safety and health at work

Giovanni Battista Piana - Safety and health at work

EDUCATION AND TRAINING

13/05/1999–Present

Qualified technician in acoustics

National register number: 2053

01/11/1998–31/10/2001

PhD in 'Energetics'

EQF level 8

Polytechnic of Milan
Piazza Leonardo da Vinci 32, 20133 Milan (Italy)

Dissertation title and date: 'Noise impact of the Metrobus Brescia project and evaluation of the sound power emitted by the Copenhagen underground vehicles' (in Italian)

01/09/1989–30/09/1998

Master's degree in Mechanical Engineering

EQF level 7

University of Brescia, Brescia (Italy)

Thesis title: 'Experimental intensimetry-based analysis of sound emissions of a hydraulic power unit' (in Italian)
Professional practice exam passed in January 1999

PERSONAL SKILLS

Mother tongue(s): Italian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- Excellent communication and expression skills, developed gained through experience as university teaching and refined in seminars to companies and professional associations
- Good relational skills, developed in working group activities, conferences and technical workshops

Organisational / managerial skills

- Good organisational skills developed in supervising students' work, collaborating with companies and public authorities, and in participating in research activities involving different universities and research institutions
- Good coordinating skills, developed as a scientific responsible for studies, researches and projects carried out by the Applied Acoustic Laboratory

Job-related skills

Selected publications

Nilsson, A.; Baro, S.; Piana, E.A. Vibro-acoustic properties of sandwich structures. *Applied Acoustics* **2018**, *139*, 259–266.

Piana, E.A.; Bignucolo, F.; Donini, A.; Spezie, R. Maintenance of a high-voltage overhead transmission line: Sustainability and noise impact assessment. *Sustainability-Basel* **2018**, *10*.

Piana, E.A.; Grassi, B.; Bianchi, F.; Pedrotti, C. Hydraulic balancing strategies: A case study of radiator-based central heating system. *Build. Serv. Eng. Res. T.* **2018**, *39*, 249–262.

Piana, E.A.; Petrogalli, C.; Paderno, D.; Carlsson, U. Application of the wave propagation approach to

sandwich structures: Vibro-acoustic properties of aluminum honeycomb materials. *Appl. Sci. Basel* **2018**, *8*.

Piana, E.A.; Uberti, S.; Copeta, A.; Motyl, B.; Baronio, G. An integrated acoustic–mechanical development method for off-road motorcycle silencers: from design to sound quality test. *Int. J. Interact. Des. Manuf.* **2018**, *12*, 1139–1153.

Scamoni, F.; Piana, E.A.; Scrosati, C. Experimental evaluation of the sound absorption and insulation of an innovative coating through different testing methods. *Build Acous* **2017**, *24*, 173–191.

Piana, E.A.; Petrogalli, C.; Solazzi, L. Dynamic and acoustic properties of a joisted floor. In Proceedings of the SIMULTECH 2016 - Proceedings of the 6th International Conference on Simulation and Modeling Methodologies, Technologies and Applications; Obaidat, M.S., Merkuryev, Y., Oren, T., Eds.; SciTePress: Lisbon, Portugal, 2016; pp. 277–282.

Piana, E.A. A method for determining the sound reduction index of precast panels based on point mobility measurements. *Applied Acoustics* **2016**, *110*, 72–80.

Piana, E.; Nilsson, A. Sound radiation efficiency of honeycomb and sandwich plates. In Proceedings of the 21st International Congress on Sound and Vibration 2014, ICSV 2014; International Institute of Acoustics and Vibrations, IIAV: Beijing, China, 2014; Vol. 2, pp. 1502–1509.

Piana, E.A.; Marchesini, A. How to lower the noise level in the owner's cabin of a yacht through the improvement of bulkhead and floor. In Proceedings of the 21st International Congress on Sound and Vibration 2014, ICSV 2014; International Institute of Acoustics and Vibration, IIAV: Beijing, China, 2014; Vol. 5, pp. 3692–3699.

Piana, E.A.; Nilsson, A.C. Prediction of the sound transmission loss of sandwich structures based on a simple test procedure. In Proceedings of the 17th International Congress on Sound and Vibration 2010, ICSV 2010; International Institute of Acoustics and Vibrations, IIAV: Cairo, Egypt, 2010; Vol. 1, pp. 109–116.

Piana, E.; Fisogni, M. Acoustic characterisation of a CPAP device for the treatment of sleep apnoea. In Proceedings of the 23rd International Conference on Noise and Vibration Engineering 2008, ISMA 2008; Katholieke Universiteit Leuven: Leuven, Belgium, 2008; Vol. 4, pp. 2321–2331.

Panteghini, A.; Genna, F.; Piana, E. Analysis of a perforated panel for the correction of low frequency resonances in medium size rooms. *Applied Acoustics* **2007**, *68*, 1086–1103.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Basic user	Independent user

Digital skills - Self-assessment grid

- Excellent use of office suites
- Excellent knowledge of software packages for technical drawing, acoustic modelling and simulation, signal acquisition and post-processing, and audio editing (Autocad, SoundPLAN, Ramsete, Odeon, Sidlab, Noise and Vibration Works, SuoNus, Echo, B&K Pulse Labshop, Oros NVGate, Adobe Audition, Audacity)
- Several use experiences of Matlab/Octave, LATEX, Pascal/Object-Pascal