

University Academic Curriculum Vitae

Personal information

Name **Gabriele Pasetti Monizza**

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Scopus Author ID: 57205099378

h-index: 8

Google Scholar: <https://scholar.google.com/citations?hl=it&user=VuuTfewAAAAJ>

h-index: 11

i10-index: 11

Education since leaving school

- **PhD in "Sustainable Energy and Technologies"**

Year: Jul. 2017

Free University of Bozen/Bolzano

Faculty of Science and Technology

Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano, Italy

T: +39 0471 011000, F: +39 0471 011009

administration@unibz.it

Referent: Prof. Dominik Matt

Working title: *Parametric and Generative Design for process efficiency in building industry: The case study of glued-laminated-timber industry*

- **Master's in Building Engineering & Architecture (EU class 4/S)**

Year: Dec. 2006

Politecnico di Milano

Piazza L. da Vinci, 32; 20133 Milano, Italy

Past appointment

- **Scientific Collaborator**

Since Feb. 2017

Fraunhofer Italia Research S.c.a.r.l.

A. Volta street 13/A; 39100 Bozen/Bolzano, Italy

T: +39 0471 196 69 00

info@fraunhofer.it

Responsibilities: *Scientific coordinator for the Digital Design & Engineering research group which aims at the digital automation of design and engineering processes towards smart manufacturing systems.*

Professional experience

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
Mar. 2017 Oct. 2018	Research Fellow	Free university of Bozen/Bolzano	Post-graduate	Collaboration in research activity
Dec. 2010 Nov. 2013	Scientific Collaborator	Fraunhofer Italia Research SCARL	Post-graduate	Collaboration in research activity
A.Y. 2010/2011	Lecturer	Free university of Bozen/Bolzano	Post-graduate	Postgraduate teaching activity
A.Y. 2010/2011	Scientific Collaborator	Free university of Bozen/Bolzano	Post-graduate	Collaboration in research activity

A.Y. 2009/2010	Scientific Collaborator	Free university of Bozen/Bolzano	Post- graduate	Collaboration in research activity
A.Y. 2019/2020	Lecturer	Free university of Bozen/Bolzano	Under- graduate	Undergraduate teaching activity

Experience in academic teaching

- **Lecturer** (A.Y. 2019/2020 - 2020/2021 – 2022/2023)
Course "Cantiere 4.0"(ING-IND/16)
Professional Bachelor in Wood Engineering (under-graduate)
Free University of Bozen/Bolzano
Faculty of Science and Technology
Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano,
Italy
- **Teaching assistant** (A.Y. 2016/2017)
Course "Produktionssysteme und Industrielogistik"(ING-IND/16)
Bachelor's in Industrial and Mechanical Engineering (under-graduate)
Free University of Bozen/Bolzano
Faculty of Science and Technology
Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano,
Italy
- **Lecturer** (A.Y. 2010/2011)
Course "Natural Ventilation"(ICAR/12)
Postgraduate Master in Science "CasaClima" (post-graduate)
Free University of Bozen/Bolzano
Faculty of Science and Technology
Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano,
Italy
- **Teaching assistant** (A.Y.s 2010/2011 - 2011/2012)
Course "Progettazione Ambientale"(ICAR/12)
Bachelor's in Logistics and Production Engineering (under-graduate)
Free University of Bozen/Bolzano
Faculty of Science and Technology
Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano,
Italy

He has been co-supervisor of Ph.D. students at the Free University of Bozen/Bolzano (ING-IND/16). As lecturer of the Postgraduate Master in Science "CasaClima", he has supervised students during their final dissertations (ICAR/12).

Other academic responsibilities

- **Exam committee member** (A.Y. 2009/2010)
Course "Progettazione Ambientale"(ICAR/12)
Bachelor's in Logistics and Production Engineering (under-graduate)
Free University of Bozen/Bolzano
Faculty of Science and Technology
Universitätsplatz, 1 - piazza Università, 1; 39100 Bozen/Bolzano,
Italy

Memberships

- Member of organizational committee**
 Mass Customization, make it real!
 One day event about future trends in digital design and digital engineering as enablers of mass-customization capabilities in Industry 4.0 environments.
 September 2020
 Fraunhofer Italia Research S.c.a.r.l.
 A. Volta street 13/A; 39100 Bozen/Bolzano, Italy
 T: +39 0471 196 69 00
 info@fraunhofer.it
- Member of scientific committee**
 REbuild Award (ed.s 2013 and 2014)
 International convention of Innovating Real Estate, Regeneration and Management
 REBUILD ITALIA
 Piazza Manifattura 1 - 38068 Rovereto (TN)
- Member of editorial board**
 DCEE 2013 - 2nd International Workshop on Design in Civil and Environmental Engineering
 28 - 29 June 2013, Worcester, MA, US

Research and scholarships

Date granted	Award Holder(s)	Funding Body	Title	Amount received
01/03/2023	Gabriele Pasetti Monizza	Autonomous Province of Bozen/Bolzano	Open access fee funds for relevant publications	3.900 €
07/01/2014	Gabriele Pasetti Monizza	Free university of Bozen/Bolzano	PhD Scholarship	-
05/12/2009	Gabriele Pasetti Monizza	Testo SpA	Best Postgraduate M.Sc. dissertation award	2.000 €

Funded projects:

Project name	Funding Body	Overall budget
SMART-Pro - Sustainable Manufacturing through Application of Reconfigurable and inTelligent systems in Production processes	EFRE/FESR - Autonoma Provincia di Bolzano	585.746,89 €
LegnAttivo - Sistemi modulari attivi di facciata a struttura portante in legno per il retrofit energetico degli edifici esistenti	EFRE/FESR - Autonoma Provincia di Bolzano	444.965,24 €
BIM Simulation Lab - Laboratorio di simulazione per la digitalizzazione BIM-based dei processi in edilizia	EFRE/FESR - Autonoma Provincia di Bolzano	609.094,54 €
RiFaRe - "RIstrutturare con Facciate pREfabbricate"	Autonoma Provincia di Bolzano	388.940,00 €
TIMBEEST - Timber building with enhanced energy and structural performance	Autonoma Provincia di Bolzano	119.325,00 €
Build4Future	Autonoma Provincia di Bolzano	489.722,93 €

He has also collected more than 500.000 € of funds as direct appointments from industrial research activities during his appointment at Fraunhofer Italia Research.

Further awards

- **Excellent oral presentation certificate**
by Chairman and Board of Directors of ISMSE2016, 2nd International Symposium on Manufacturing Science and Engineering
Singapore, 13-15 October 2016

Language competences

Language	Understanding		Speaking		Writing
	Listening	Reading	Spoken Interaction	Spoken Production	
Italian	Native speaker	Native speaker	Native speaker	Native speaker	Native speaker
English	C1	C1	C1	C1	C1
German	B1	B1	B1	B1	B1

Overall publication list (by year)

Books:

- AA.VV., "Quaderno per il recupero energetico. Raccolta di casi-studio per interventi sul patrimonio edilizio tradizionale", pp 85, Regione Autonoma Valle d'Aosta, Aosta, Italy, 2013. (Guide lines for energy refurbishment of traditional constructions in Val d'Aosta)
- C. Benedetti, P. Erlacher, G. Pasetti Monizza, J. Ratajczak, C. Patz, "Materiali isolanti" 2° edizione riveduta, Le guide pratiche del Master CasaClima, Vol. 2, pp 178, Bozen-Bolzano University Press, Free University of Bozen-Bolzano, Bolzano, Italy, 2012. (Handbook about insulating materials; 2nd edition)
- C. Benedetti, G. Pasetti Monizza, G. Leone, "Ventilazione naturale" Le guide pratiche del Master CasaClima, Vol. 3, pp 208, Bozen-Bolzano University Press, Free University of Bozen-Bolzano, Bolzano, Italy, 2011. (Handbook about natural ventilation in buildings)
- C. Benedetti, P. Erlacher, G. Pasetti Monizza, J. Ratajczak, C. Patz, "Materiali isolanti", Le guide pratiche del Master CasaClima, Vol. 2, pp 160, Bozen-Bolzano University Press, Free University of Bozen-Bolzano, Bolzano, Italy, 2010. (Handbook about insulating materials; 1st edition)

Proceedings and Articles:

- (in press) J. Fauth, G. Pasetti Monizza, G. Malacarne, *Understanding processes on digital building permits - a case study in South Tyrol, Building Research and Information, Taylor & Francis Group (2023)*. DOI: 10.1080/09613218.2023.2178372
- G. Pasetti Monizza, D.T. Matt, Mass customization as the convergent vision for the digital transformation of the manufacturing and the building industry, "In Woodhead Publishing Series in Civil and Structural Engineering, Rethinking Building Skins", Woodhead Publishing (2022): 453-474. DOI: 10.1016/B978-0-12-822477-9.00006-1
- C. P. Schimanski, N. L. Pradhan, D. Chaltsev, G. Pasetti Monizza,

- D.T. Matt, Integrating BIM with Lean Construction approach: Functional requirements and production management software, *Automation in Construction* 132 (2021): 270-285. DOI: 10.1016/j.autcon.2021.103969
- *G. Pasetti Monizza*, C. P. Schimanski, G. Malacarne, D.T. Matt, BIM Simulation Lab - Fostering Digital Transformation in Local Small-Medium Enterprises and Public Administrations, "Developing Smart Cities Based on Digital Twins", IGI Global Publications (2021): 106-128. DOI: 10.4018/978-1-7998-7091-3.ch006
 - C. P. Schimanski, *G. Pasetti Monizza*, C. Marcher, D.T. Matt, Conceptual foundations for a new lean BIM-based production system in construction, "27th Annual Conference of the International Group for Lean Construction", IGLC 2019 (2020). DOI: 10.24928/2019/0106
 - C. P. Schimanski, C. Marcher, *G. Pasetti Monizza*, D.T. Matt, The last planner® system and building information modeling in construction execution: From an integrative review to a conceptual model for integration, "Applied Science", 10 (2020): 821. DOI: 10.3390/app10030821
 - G. Minneci, A. Schweigkofler, C. Marcher, *G. Pasetti Monizza*, T. Tillo, D.T. Matt, Computer Vision Approach for Indoor Location Recognition Within an Augmented Reality Mobile Application, "Lecture Notes in Computer Science" (2019). DOI: 10.1007/978-3-030-30949-7_6
 - C. P. Schimanski, C. Marcher, G. Toller, *G. Pasetti Monizza*, D.T. Matt, Enhancing Automation in the Construction Equipment Industry Through Implementation of BIM, "Lecture Notes in Computer Science" (2019). DOI: 10.1007/978-3-030-30949-7_8
 - C. P. Schimanski, *G. Pasetti Monizza*, C. Marcher, D.T. Matt, Pushing Digital Automation of Configure-to-Order Services in Small and Medium Enterprises of the Construction Equipment Industry: A Design Science Research Approach, "Applied Science", 9 (2019): 3780. DOI: 10.3390/app9183780
 - *G. Pasetti Monizza*, R. A. Rojas, E. Rauch, M. A. Ruiz Garcia, D. T. Matt, A Case Study in Learning Factories for Real-Time Reconfiguration of Assembly Systems Through Computational Design and Cyber-Physical Systems, IFIPAICT 540 (2018): 227-237. DOI: 10.1007/978-3-030-01614-2_21
 - A. Schweigkofler, *G. Pasetti Monizza*, E. Domi, A. Popescu, J. Ratajczak, C. Marcher, M. Riedl, D. Matt, Development of a Digital Platform Based on the Integration of Augmented Reality and BIM for the Management of Information in Construction Processes, In: Chiabert, P., Bouras, A., Noël, F., Ríos, J. (eds) Product Lifecycle Management to Support Industry 4.0, PLM 2018. IFIP Advances in Information and Communication Technology, 540 (2018). Springer, Cham. DOI: 10.1007/978-3-030-01614-2_5
 - *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Parametric and Generative Design techniques in mass-production environments as effective enablers of Industry 4.0 approaches in the Building Industry, *Automation in Construction* 92 (2018): 270-285. DOI: 10.1016/j.autcon.2018.02.027
 - R. Brozzi, D. D'Amico, *G. Pasetti Monizza*, C. Marcher, M. Riedl, D.T. Matt, Design of Self-assessment Tools to measure industry 4.0

readiness. A methodological approach for craftsmanship SMEs, In: Chiabert, P., Bouras, A., Noël, F., Ríos, J. (eds) Product Lifecycle Management to Support Industry 4.0, PLM 2018. IFIP Advances in Information and Communication Technology 540 (2018), Springer, Cham. DOI: 10.1007/978-3-030-01614-2_52

- *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Computational Design techniques as enablers of Industry 4.0 approaches in GLT industry, "WCTE 2018 - World Congress of timber Engineering", Seoul, 20-23 August 2018.
- *E. Sinito*, D. Casagrande, M. Izzi, A. Polastri, G. Pasetto, A. Angeli, F. Nebiolo, G. Pasetti Monizza, R. Crocetti, The TRE3 Research Project: a hybrid timber-frame wall system for emergency housing facilities, "WCTE 2018 - World Congress of timber Engineering", Seoul, 20-23 August 2018.
- *G. Pasetti Monizza*, E. Rauch, D.T. Matt, Parametric and Generative Design Techniques for Mass-Customization in Building Industry: a Case Study for Glued-Laminated Timber, "27th CIRP Design 2017", Procedia CIRP 60 (2017): 392-397. DOI: 10.1016/j.procir.2017.01.051
- *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Programming a Parametric Design Algorithm to Improve Manufacturing Processes' Efficiency: The Case Study of Glued-Laminated Timber, "Journal of Civil Engineering and Architecture 10 (2016)": 1203-1213. DOI: 10.17265/1934-7359/2016.11.001
- *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Parametric and Generative Design Techniques for Digitalization in Building Industry: the Case Study of Glued-Laminated-Timber Industry, "ISMSE 2016, 2nd International Symposium on Manufacturing Science and Engineering", Singapore, 13-15 October 2016.
- *G. Malacarne*, G. Pasetti Monizza, J. Ratajczak, D. Krause, C. Benedetti, D.T. Matt, Prefabricated Timber Façade for the Energy Refurbishment of the Italian Building Stock: The Ri.Fa.Re. Project, Energy Procedia 96 (2016): 788-799. DOI: 10.1016/j.egypro.2016.09.141
- C. Benedetti, J. Ratajczak, *G. Pasetti Monizza*, From Education to Information through Research, "WCTE 2016 - World Conference on Timber Engineering", Wien (Austria), 22-25 August 2016. ISBN: 978-3-903024-35-9
- *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Parametric and Generative Design techniques for process efficiency in building industry: the case study of Glued Laminated Timber industry, "4th INTERNATIONAL WORKSHOP ON DESIGN IN CIVIL & ENVIRONMENTAL ENGINEERING", Taipei (Taiwan), 30-31 October 2015.
- *G. Pasetti Monizza*, D.T. Matt, C. Benedetti, Parametric and Generative Design techniques for integrated design of Glued Laminated Timber, "PLEA 2015, 31st INTERNATIONAL PLEA CONFERENCE", Bologna (Italy), 9-11 September 2015.
- *G. Pasetti Monizza*, M. Marechesi, D.T. Matt, D. Krause, C. Benedetti, Axiomatic Design in participated urban planning: potentials and criticism, "DCEE 2013, 2nd INTERNATIONAL WORKSHOP ON DESIGN IN CIVIL & ENVIRONMENTAL ENGINEERING", Worcester MA (USA), 28-29 June 2013.

- C. Benedetti, *M.T. Girasoli*, J. Ratajczak, P. Dallasega, G. Pasetti Monizza, I. Paradisi, A new approach to Design Education for the 21st century, "DCEE 2013, 2nd INTERNATIONAL WORKSHOP ON DESIGN IN CIVIL & ENVIRONMENTAL ENGINEERING", Worcester MA (USA), 28-29 June 2013.
- C. Benedetti, *J. Ratajczak*, M. Marchesi, G. Pasetti Monizza, M.T. Girasoli, The flexibility of energy-efficiency in modular housing unit: a case study, "ICEAS 2013, 2nd INTERNATIONAL CONFERENCE ON ENGINEERING AND APPLIED SCIENCE", Tokyo (Japan), 15-17 March 2013.
- C. Benedetti, *J. Ratajczak*, M. Marchesi, M. Glorioso, G. Pasetti Monizza, M.T. Girasoli, I. Brauer; Flexibility in energy-efficient public housing as a factor of social, economical and environmental sustainability, "ICEAS2012, INTERNATIONAL CONFERENCE ON ENGINEERING AND APPLIED SCIENCE", Beijing (China), 24-27 July 2012.
- *I. Paradisi*, M. Baratieri, C. Benedetti, M.T. Girasoli, M. Marchesi, G. Pasetti Monizza; Timber frame wall with enhanced energy performance – The Solar Decathlon Europe experience, "IFME2012, WORLD CONGRESS ON MUNICIPAL ENGINEERING", Helsinki (Finland), 4-10 June 2012.
- *G. Pasetti Monizza*, C. Benedetti, M.T. Girasoli, M. Marchesi, J. Ratajczak; "Easy wind tunnel", a fluid dynamic approach for everyone, "BSA2012, 1st INTERNATIONAL CONFERENCE ON BUILDING ASSESSMENT", Porto (Portugal), 23-25 May 2012.
- *G. Pasetti Monizza*, C. Benedetti, M.T. Girasoli, G. Leone; The bioclimatic urban planning, a case study: The railway workshop area in Bozen, Italy, "SB11, WORLD SUSTAINABLE BUILDING CONFERENCE", Helsinki (Finland), 18-21 October 2011.
- C. Benedetti, M. Baratieri, *G. Pasetti Monizza*; Analysis and design of a passive cooling system using rainfall sources, "CLIMA 2010, 10th REHVA WORLD CONGRESS, SUSTAINABLE ENERGY USE IN BUILDINGS", Antalya (Turkey), May 2010.