

Short Academic Curriculum Vitae

of

MARCO BIETRESATO

Personal information

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Educational path

- **5-year Degree in “Mechanical Engineering”**, equivalent to a Master’s degree¹ (Laurea “Vecchio Ordinamento” ante D.M. 509/1999; EQF/ISCED2011 level: 7) Università degli Studi di Padova, Faculty of Engineering, Padova, Italia
- **Diploma of 1-year Postgrad Specialization Course in “Vehicle Engineering”** (Master Universitario di II livello; EQF/ISCED2011 level: 8), Università degli Studi di Modena e Reggio Emilia, Faculty of Engineering, Modena, Italia
- **PhD in “Industrial Engineering”, address in “Industrial Manufacturing Engineering”** (EQF/ISCED2011 level: 8), Università degli Studi di Padova, Faculty of Engineering, Doctoral School in Industrial Engineering, S.S.D.² ING-IND/16 “Tecnologia Meccanica e Sistemi di Lavorazione – Manufacturing Technology and Systems”, Padova, Italia
- **PhD in “Land, Environment, Resources and Health”, address in “Mechanical Technologies for Agricultural and Forestry Processes”**, (EQF/ISCED2011 level: 8), Università degli Studi di Padova, Faculty of Agricultural Sciences, Doctoral School in “Land, Environment, Resources and Health”, S.S.D. AGR/09 “Meccanica Agraria – Agricultural Machinery and Mechanization”, Padova, Italia
- (Italian) **National Scientific Professorship Qualification as ASSOCIATE UNIVERSITY PROFESSOR** (“Professore Universitario di II fascia”) for the S.C.³ 07/C1 “Agricultural, Forest and Biosystems Engineering - Ingegneria Agraria, Forestale e dei Biosistemi” Ministero dell’Università e della Ricerca Scientifica e Tecnologica, Italia
- (Italian) **National Scientific Professorship Qualification as FULL UNIVERSITY PROFESSOR** (“Professore Universitario di I fascia”) for the S.C. 07/C1 “Agricultural, Forest and Biosystems Engineering - Ingegneria Agraria, Forestale e dei Biosistemi” Ministero dell’Università e della Ricerca Scientifica e Tecnologica, Italia

¹ Italian law of reference: table XXIX of the royal decree 30.9.1938 n. 1652 then modified by DM 22.5.1995 in G.U. n. 166 of 18.7.1995, equivalent to a Master’s degree of the class 36/S in Mechanical Engineering (DM 509/99), or to a LM-33 Master’s degree in Mechanical Engineering (DM 270/04).

² The acronym “S.S.D.” stands for “Settore Scientifico Disciplinare”, i.e. “Academic Discipline”. See: <https://www.cun.it/documentazione/academic-fields-and-disciplines-list/>

³ The acronym “S.C.” stands for “Settore Concorsuale”, i.e. “Academic Recruitment Field”. See: <https://www.cun.it/documentazione/academic-fields-and-disciplines-list/>

Professional experience – current appointment

October 3rd, 2022 – today (official end of contract: October 2nd, 2025)
Assistant Professor / Senior Researcher / Tenure-track Researcher (RTD-B) in “Agricultural Machinery and Mechanization – Meccanica Agraria” (S.S.D. AGR/09)
 (Ricercatore a Tempo Determinato di tipo B o “Senior”, Italian Law 240/2010)
 Università degli Studi di Udine, Dipartimento di Scienze Agroalimentari, Ambientali e Animali / Agri-Food, Environmental and Animal Sciences Dept. – DI4A, Udine, Italia
 National context appointment

Experience in academic teaching

Each course title is firstly given in the official language of the course.

Academic year	University, Faculty/Dept.	Course title, ECTS, total taught hours (lesson+exercises/lab)	Academic level	Role
2004-2005	Padova, Fac. of Engineering	<i>Tecnologia Meccanica</i> (Mechanical Technology), 6 ECTS, 10 hours, ITA	Bachelor's degree (<i>Ingegneria Gestionale</i>)	Teaching assistant
	Padova, Fac. of Engineering	<i>Sistemi integrati di produzione</i> (Integrated Manufacturing Systems), 9 ECTS, 12 hours, ITA	Master's degree (<i>Ingegneria Gestionale Vecchio Ord.</i>)	Teaching assistant
2005-2006	Padova, Fac. of Engineering	<i>Sistemi integrati di produzione</i> (Integrated Manufacturing Systems), 9 ECTS, 13 hours, ITA	Master's degree (<i>Ingegneria Gestionale</i>)	Teaching assistant
2006-2007	Padova, Fac. of Engineering	<i>Sistemi integrati di produzione</i> (Integrated Manufacturing Systems), 9 ECTS, 36 hours, ITA	Master's degree (<i>Ingegneria Gestionale</i>)	Teaching assistant
2007-2008	Padova, Fac. of Engineering	<i>Sistemi integrati di produzione</i> (Integrated Manufacturing Systems), 9 ECTS, 8 hours, ITA	Master's degree (<i>Ingegneria Gestionale</i>)	Teaching assistant
2010-2011	Padova, Fac. of Agricultural Sciences	<i>Meccanica Agraria</i> (Agricultural Mechanics), 8 ECTS, 64 hours, ITA	Bachelor's degree (<i>Scienze e Tecnologie Agrarie</i>)	Lecturer
2012-2013	Bolzano, Fac. of Science and Technology	<i>Meccanica a Meccanizzazione Agricola</i> (Agricultural Engineering), 6 ECTS, 30 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Teaching assistant
	Bolzano, Fac. of Science and Technology	<i>Fundamentals of Precision Horticulture</i> , 3 ECTS, 15 hours, ENG	Master's degree (<i>International Master of Fruit Science</i>)	Teaching assistant
	Bolzano, Fac. of Science and Technology	<i>Basics of Farm Information Technologies of Fruit Science</i> , 3 ECTS, 15 hours, ENG	Master's degree (<i>International Master of Fruit Science</i>)	Teaching assistant
2013-2014	Bolzano, Fac. of Science and Technology	<i>Meccanica e Meccanizzazione Agricola</i> (Agricultural Machinery), 6 ECTS, 20 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Teaching assistant
2014-2015	Bolzano, Fac. of Science and Technology	<i>Introduction to Information Science</i> , 4 ECTS, 40 hours, ENG	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Rural Technology Systems</i> , 6 ECTS, 24 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Teaching assistant
2015-2016	Bolzano, Fac. of Science and Technology	<i>Introduction to Information Science</i> , 4 ECTS, 40 hours, ENG	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Rural Technology Systems</i> , 6 ECTS, 24 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Teaching assistant
2016-2017	Bolzano, Fac. of Science and Technology	<i>Fondamenti di Informatica</i> (Introduction to Information Science), 4 ECTS, 40 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Rural Technology Systems</i> , 6 ECTS, 24 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Teaching assistant
2017-2018	Bolzano, Fac. of Science and Technology	<i>Macchine e Impianti</i> (Machines and plants), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer

2018-2019	Bolzano, Fac. of Science and Technology	<i>Macchine e Impianti</i> (Machines and plants), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer
2019-2020	Bolzano, Fac. of Science and Technology	<i>Macchine e Impianti</i> (Machines and plants), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Scienze Agrarie e Agroambientali</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Macchine e Sistemi Produttivi per l'Industria Agroalimentare</i> (Machinery and Production Systems for Agrifood Industry), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Ingegneria Industriale Meccanica</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Technologies for Low Input Agricultural Systems</i> , 6 ECTS, 30 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Co-Lecturer (half of the course)
2020-2021	Bolzano, Fac. of Science and Technology	<i>Technologies for Low Input Agricultural Systems</i> , 6 ECTS, 60 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Food Processing Equipment</i> , 6 ECTS, 20 hours, ENG	Master's degree (<i>Food Sciences for Innovation and Authenticity</i>)	Co-Lecturer (a third of the course)
2021-2022	Bolzano, Fac. of Science and Technology	<i>Technologies for Low Input Agricultural Systems</i> , 6 ECTS, 60 hours, ENG	Master's degree (<i>Environmental Management of Mountain Areas</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Macchine, Impianti e Logistica per l'Industria Agroalimentare</i> (Machines, Plants and Logistists for the Agro-food Industry), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Scienze Agrarie, degli Alimenti e dell'Ambiente montano</i>)	Lecturer
	Bolzano, Fac. of Science and Technology	<i>Macchine e Sistemi Produttivi per l'Industria Agroalimentare</i> (Machinery and Production Systems for Agrifood Industry), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Ingegneria Industriale Meccanica</i>)	Lecturer
2022-2023	Bolzano, Fac. of Science and Technology	<i>Macchine, Impianti e Logistica per l'Industria Agroalimentare</i> (Machines, Plants and Logistists for the Agro-food Industry), 6 ECTS, 60 hours, ITA	Bachelor's degree (<i>Scienze Agrarie, degli Alimenti e dell'Ambiente montano</i>)	Lecturer
	Udine, Dept. of Agricultural, Food, Environmental and Animal Sciences	<i>Macchine e Impianti per l'Industria Alimentare</i> (Food industry machinery and plants), 5 ECTS, 40 hours, ITA	Bachelor's degree (<i>Scienze e Tecnologie Alimentari</i>)	Lecturer
	Udine, Dept. of Agricultural, Food, Environmental and Animal Sciences	<i>Macchine e Impianti Enologici</i> (Wine industry machinery and plants), 5 ECTS, 20 hours, ITA	Bachelor's degree (<i>Viticultura ed Enologia</i>)	Co-Lecturer
2023-2024	Udine, Dept. of Agricultural, Food, Environmental and Animal Sciences	<i>Macchine e Impianti per l'Industria Alimentare</i> (Food industry machinery and plants), 5 ECTS, 40 hours, ITA	Bachelor's degree (<i>Scienze e Tecnologie Alimentari</i>)	Lecturer
	Udine, Dept. of Agricultural, Food, Environmental and Animal Sciences	<i>Macchine e Impianti Enologici</i> (Wine industry machinery and plants), 5 ECTS, 40 hours, ITA	Bachelor's degree (<i>Viticultura ed Enologia</i>)	Lecturer

Other academic responsibilities (current appointments)

- September 2012 – now: **Cultore della Materia** (“recognized expert in the subject”) of “*Meccanica Agraria*” (UniPD, UniBZ)
- April 2020 – now: **member of the Board of the PhD Course** in “*Sustainable Energy and Technology - SET*”⁴ (36th, 37th and 39th cycle) at the Free University of Bolzano

⁴ See: <https://www.unibz.it/en/faculties/sciencetechnology/phd-sustainable-energy-technologies/>

Participation to editorial boards of international journal

- December 2020 – now: **Journal Topic Board Member of “APPLIED SCIENCES” International Journal** (<https://www.mdpi.com/journal/applsci>; ISSN: 2076-3417; Publisher: MDPI AG), Scopus indexed, Open-access.

Participation to scientific committees of international conferences

- **Invited member of the Scientific Advisory Board of *ERDEV 2021 – 20th International Scientific Conference Engineering for Rural Development*** (<http://www.tf.llu.lv/conference/index.php?topicID=1>) which was held on May 26th-28th, 2021 in Jelgava, (Latvia). The organisation of this event was in charge of the Latvia University of Life Sciences and Technologies (<https://www.llu.lv/en>).
- **Invited member of the Scientific Advisory Board of *SDEWES 2021– 16th International Conference on Sustainable Development of Energy, Water and Environment Systems*** (<https://www.dubrovnik2021.sdewes.org/scientific-advisory-board>) which was held on October 8th-15th, 2021 in Dubrovnik (Croatia). The organisation of this event was in charge of the International Centre for Sustainable Development of Energy, Water and Environment Systems (<https://www.sdewes.org/>).
- **Invited member of the Scientific Advisory Committee of *SAFE 2021 – 9th International Conference on Safety and Security Engineering*** (https://www.wessex.ac.uk/conferences/2021/safe-2021?utm_source=wit&utm_medium=email&utm_campaign=safe21cfp&utm_content=1996655) which was held online on November 9th-11th, 2021. The organisation of this event was in charge of the Wessex Institute (<https://www.wessex.ac.uk/>). Dr Bietresato has been also invited to hold a speech titled “*A novel facility for statically testing the stability of vehicles: technical features and possibilities*”.
- **Invited member of the Scientific Advisory Board of *SEE SDEWES 2022– 5th South East European Conference on Sustainable Development of Energy, Water and Environment Systems*** (<https://www.vlore2022.sdewes.org/scientific-advisory-board>) which will be held on May 22nd-26th, 2022 in Vlorë (Albania). The organisation of this event was in charge of the International Centre for Sustainable Development of Energy, Water and Environment Systems (<https://www.sdewes.org/>).
- **Invited member of the Scientific Advisory Board of *ERDEV 2022 – 21st International Scientific Conference Engineering for Rural Development*** (<http://www.tf.llu.lv/conference/index.php?topicID=1>) which was held on May 25th-27th, 2022 in Jelgava (Latvia). The organisation of this event was in charge of the Latvia University of Life Sciences and Technologies (<https://www.llu.lv/en>).
- **Invited member of the Scientific Advisory Board of *LA SDEWES 2022– 3rd Latin American Conference on Sustainable Development of Energy, Water and Environment Systems*** (<https://www.saopaulo2022.sdewes.org/scientific-advisory-board>) which will be held on July 24th-28th, 2022 in Sao Paulo (Brazil). The organisation of this event was in charge of the International Centre for Sustainable Development of Energy, Water and Environment Systems (<https://www.sdewes.org/>).
- **Invited member of the Scientific Advisory Board of *SDEWES PAPHOS 2022– 17th Conference on Sustainable Development of Energy, Water and Environment Systems*** (<https://www.paphos2022.sdewes.org/scientific-advisory-board>) which will be held on November 6th-10th, 2022 in Paphos (Cyprus). The organisation of this event was in charge of the International Centre for Sustainable Development of Energy, Water and Environment Systems (<https://www.sdewes.org/>).
- **Invited member of the Scientific Advisory Committee of *RISK/SAFE 2022 – 13th International Conference on Safety and Security Engineering*** (<https://www.wessex.ac.uk/conferences/2022/risk-safe-2022>) which will be held in Rome on October 12th-14th, 2022. The organisation of this event was in charge of the Wessex Institute (<https://www.wessex.ac.uk/>).

- **Invited member of the Scientific Advisory Board of ISIEA 2023 – 2nd International Symposium on Industrial Engineering and Automation “Towards a Smart, Resilient and Sustainable Industry”** (https://isiea.events.unibz.it/international-scientific-commettee_2023/) which will be held on June 22nd-23rd 2023 in Bolzano (Italy). The organisation of this event was in charge of the Free University of Bozan-Bolzano (<https://www.unibz.it/>).
- **Invited member of the Scientific Advisory Board of ERDEV 2023 – 22nd International Scientific Conference Engineering for Rural Development** (<http://www.tf.llu.lv/conference/index.php?topicID=1>) which will be held on May 24th-26th, 2023 in Jelgava (Latvia). The organisation of this event was in charge of the Latvia University of Life Sciences and Technologies (<https://www.llu.lv/en>). During that conference, Marco Bietresato was also **Vice-chairman of Section 4 “Renewable and Conventional Energy”** together with Prof. Dainis Berjoza (Latvia University of Life Sciences and Technologies)
- **Invited member of the Scientific Advisory Board of LA SDEWES 2024– 4th Latin American Conference on Sustainable Development of Energy, Water and Environment Systems** (<https://www.vinadelmar2024.sdewes.org/scientific-advisory-board>) which will be held on January 14th-15th, 2024 in Viña del Mar (Chile). The organisation of this event was in charge of the International Centre for Sustainable Development of Energy, Water and Environment Systems (<https://www.sdewes.org/>).

Activity as guest editor of international journals

- June 2016 – September 2016: **participation in the scientific committee** of the international journal “*CONTEMPORARY ENGINEERING SCIENCES*”, Special Issue “*Multi-Criteria Approach to Forest Products for Economic and Energetic Sustainability Use*” (<http://www.m-hikari.com/ces/mca.html>; indexed by Scopus at the period of this special issue); Guest editors: Andrea R. Proto and Giuseppe Zimbalatti; ISSN 1313-6569 (print), 1314-7641 (online); Publisher: Hikari Ltd.
- February 2020 – July 2021: **special issue guest editor** for the international journal “*ENERGIES*”, topic “*Practical Measures for an Effective “Bio-Based” Fuel Change in Internal Combustion Engines for Agriculture and Cogeneration*” (https://www.mdpi.com/journal/energies/special_issues/biobased_fuel; indexed by Scopus, I.F. 2.702 in 2020); the other special issue editors were: Prof. F. Caresana (Politechnical University of Marche, Italy) and Prof. M. Renzi (Free University of Bolzano, Italy); ISSN 1996-1073; Publisher: MDPI.
- November 2022 – December 2023: **invited special issue guest editor** for the international journal “*APPLIED SCIENCES*”, topic “*Novel Developments in Agricultural Machinery and Technology*” (https://www.mdpi.com/journal/applsci/special_issues/01537825OD; indexed by Scopus, I.F. 2.838 in 2021); the other special issue editors are: Prof. R. Gubiani (University of Udine, Italy) and Prof. A. Aboltins (Latvia University of Life Sciences and Technologies, Latvia); ISSN 2076-3417; Publisher: MDPI.

Journal Papers in refereed academic journals (“Articoli su rivista con referees”)

Among the 90 publications in which M. Bietresato is author/co-author, here below there is the list of the Journal Articles only, in chronological order. The *asterisk* indicates the *corresponding author for that paper*.

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| <p>J1. Friso D.*, Bietresato M., 2009. “<i>Assessment of dynamic features of mechanical oscillators for a root-balling machine with a vibrating blade</i>”. Journal of Agricultural Engineering, vol. XL n. 4; pp. 1-7 (tot. 7), ISSN: 1974-7071; OPEN ACCESS</p> <p><i>Keywords:</i> mechanical oscillators, vibrating blade, root-balling machine, cutting soil.</p> <p>J2. Cavalli R.*, Pellegrini M., Grigolato S., Bietresato M., 2011. “<i>A strategy for the management of abandoned mountain pasture land colonized by dwarf pine</i>”. L’Italia forestale e montana, vol. 66 n. 5; pp. 383-393 (tot. 11). DOI: 10.4129/ifm.2011.5.02, ISSN: 0021-2776</p> <p><i>Keywords:</i> woodchips; forest road network; GIS; dwarf pine.</p> <p>J3. Grigolato S.*, Bietresato M., Asson D., Cavalli R., 2011. “<i>Evaluation of the manufacturing</i>”</p> |
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- of desk and stringer boards for wood pallets production by discrete event simulation*". Biosystems Engineering, vol. 109 n. 4; pp. 288-296 (tot. 9), DOI: 10.1016/j.biosystemseng.2011.04.009, ISSN: 1537-5110
- Keywords:* discrete-event simulation, system efficiency, sawmill technology, wood pallet production.
- Scopus-indexed; Scopus ID 2-s2.0-79960218228; SciVal Topic Prominence Percentile: 44.163; Journal IF2011: 1.354
- J4. Bietresato M.*, Friso D., Sartori L., 2012. "*Assessment of the efficiency of tractor transmissions using acceleration tests*", Biosystems Engineering, vol. 112 n. 3; p. 171-180 (tot. 10), ISSN: 1537-5110, DOI: 10.1016/j.biosystemseng.2012.03.009
- Keywords:* tractor, acceleration test, transmission, average transmission efficiency, Newton's law.
- Scopus-indexed; Scopus ID 2-s2.0-84861348219; SciVal Topic Prominence Percentile: 60.846; Journal IF2012: 1.357
- J5. Friso D.*, Bietresato M., 2012. "*Dynamic analysis and design guidelines of mechanical oscillators for cutting soil through vibrating tools*", Journal of Vibroengineering, vol. 14 n. 4; p. 1775-1786 (tot. 12), ISSN 1392-8716
- Keywords:* mechanical oscillator, vibrating tools, soil cutting, root-balling machine.
- Scopus-indexed; Scopus ID 2-s2.0-84872248491; Journal IF2012: 0.452
- J6. Bietresato M.*, Pavan S., Cozzi G., Sartori L., 2013. "*A numerical approach for evaluating and properly setting self-propelled forage harvesters*", Transactions of the ASABE, vol. 56 n. 1; p. 5-14 (tot. 10), ISSN 2151-0032
- Keywords:* corn silage, multi-linear regression model, response surface modelling, self-propelled forage-harvester, theoretical cut length.
- Scopus-indexed; Scopus ID 2-s2.0-84876858538; SciVal Topic Prominence Percentile: 24.753; Journal IF2013: 0.843
- J7. Bietresato M.*, Friso D., Sartori L., 2013. "*An operative approach for designing and optimising a pipeline network for slurry collection from dairy farms across a wide geographical area*", Biosystems Engineering, vol. 115 n. 3; p. 354-368 (tot. 15), ISSN: 1537-5110, DOI: 10.1016/j.biosystemseng.2013.01.008
- Keywords:* pipeline network; slurry collection; Euclidian Steiner Minimum Tree problem; Steiner Insertion algorithm; Kruskal's algorithm; Simpson's algorithm.
- Scopus-indexed; Scopus ID 2-s2.0-84878666144; SciVal Topic Prominence Percentile: 96.547; Journal IF2013: 1.367
- J8. Bietresato M.*, Sartori L., 2013. "*Technical aspects concerning the detection of animal waste nutrient content via its electrical characteristics*", Bioresource Technology, vol. 132, p. 127-136 (tot. 10), ISSN: 0960-8524, DOI: 10.1016/j.biortech.2012.12.184
- Keywords:* manure, nutrient content, metal corrosion, electrical conductivity, response surface modelling.
- Scopus-indexed; Scopus ID 2-s2.0-84873454815; SciVal Topic Prominence Percentile: 71.017; Journal IF2013: 5.039
- J9. Mazzetto F., Bietresato M.*, Gasparetto A., Vidoni R., 2013. "*Simulated stability tests of a small articulated tractor designed for extreme-sloped vineyards*" Journal of Agricultural Engineering, vol. 44(s1):e133, p. 663-668 (tot. 6), ISSN: 1974-7071, doi: 10.4081/jae.2013.(s1):e133
- Keywords:* articulated tractor; tractor stability; safety index; self-locking articulation, Matlab® simulation.
- Scopus-indexed; Scopus ID 2-s2.0-84937550792; SciVal Topic Prominence Percentile: 92.052; OPEN ACCESS
- J10. Mazzetto F., Bietresato M.*, 2013. "*Proposal of a local telemetry network for the monitoring the thermodynamic and environmental performances of farm tractors*" Journal of Agricultural Engineering, vol. 44(s1):e133, p. 132-136 (tot. 5), ISSN: 1974-7071, doi: 10.4081/jae.2013.(s1):e25
- Keywords:* farm tractors; engine performances; remote monitoring; telemetry.
- Scopus-indexed; Scopus ID 2-s2.0-84914096094; SciVal Topic Prominence Percentile:

60.846; OPEN ACCESS

- J11. Bietresato M.*, Friso D., 2014. **“Durability test on an agricultural tractor engine fuelled with pure biodiesel (B100)”** Turkish Journal of Agriculture and Forestry, vol. 38 n. 2, p. 214-223 (tot. 10), ISSN: 1300-011X, DOI: 10.3906/tar-1302-51

Keywords: agricultural tractor, B100, biodiesel, diesel engine, durability tests, engine performanc.

(<http://journals.tubitak.gov.tr/havuz/tar-1302-51.pdf>)

Scopus-indexed; Scopus ID 2-s2.0-84893023933; SciVal Topic Prominence Percentile: 99.850; Journal IF2014: 0.929; OPEN ACCESS

- J12. Bietresato M.*, Calcante A., Mazzetto F., 2015. **“A neural network approach for indirectly estimating farm tractors engine performance”**, Fuel, vol. 143, p. 144-154 (tot. 11), ISSN: 0016-2361, doi: 10.1016/j.fuel.2014.11.019

Keywords: diesel engine; BSFC; motor torque; artificial neural network; exhaust gas temperature; motor oil temperature.

Scopus-indexed; Scopus ID 2-s2.0-84914145245; SciVal Topic Prominence Percentile: 60.846; Journal IF2015: 3.611

- J13. Vidoni R., Bietresato M.*, Gasparetto A., Mazzetto F., 2015. **“Evaluation and stability comparison of different vehicle configurations for robotic agricultural operations on side-slopes”**, Biosystems Engineering, vol. 129, p. 197-211 (tot. 15), ISSN: 1537-5110, DOI: 10.1016/j.biosystemseng.2014.10.003

Keywords: mobile robots; stability; side-slope activities; kinematics.

Scopus-indexed; Scopus ID 2-s2.0-84910122845; SciVal Topic Prominence Percentile: 92.052; Journal IF2015: 1.997

- J14. Vidoni R., Bietresato M.*, Gasparetto A., Mazzetto F., 2015. **Corrigendum to “Evaluation and stability comparison of different vehicle configurations for robotic agricultural operations on side-slopes”**. Biosystems Engineering, vol. 136, p. 162-164 (tot. 3), ISSN: 1537-5110, DOI: 10.1016/j.biosystemseng.2015.06.001

Scopus-indexed; Scopus ID 2-s2.0-84937973668; Journal IF2015: 1.997

- J15. Bietresato M.*, Carabin G., Vidoni R., Mazzetto F., Gasparetto A., 2015. **“A parametric approach for evaluating the stability of agricultural tractors using implements during side-slope activities”**. Contemporary Engineering Sciences, vol. 8, p. 1289-1309 (tot. 21), ISSN: 1313-6569, DOI: 10.12988/ces.2015.56185

Keywords: farm tractor, side-slope agricultural activities, parametric evaluation of the stability, Response Surface Modelling, equilibrium maps.

Scopus-indexed; Scopus ID 2-s2.0-84947337994; SciVal Topic Prominence Percentile: 92.052; OPEN ACCESS

- J16. Bietresato M.*, Renzi M., Mischiatti S., Mazzetto F., 2016 **“Engine test stand layout and post processing tools for the detection of many engine performance parameters”**. ARPN Journal of Engineering And Applied Sciences, vol. 11, p. 1309-1316 (tot. 8), ISSN: 1819-6608

Keywords: engine test stand, agricultural engines, engine performance detection.

Scopus-indexed; Scopus ID 2-s2.0-84957889378; SciVal Topic Prominence Percentile: 99.850

- J17. Bietresato M.*, Carabin G., Vidoni R., Mazzetto F., Gasparetto A., 2016. **“Evaluation of a LiDAR-based 3D-stereoscopic vision system for crop-monitoring applications”**. Computers and Electronics in Agriculture, vol. 124, p. 1-13 (tot. 13), ISSN: 0168-1699, DOI: 10.1016/j.compag.2016.03.017

Keywords: vision systems; LiDAR; canopy detection; volume estimation; lateral-linear-stereoscopic vision; agricultural robotic system.

Scopus-indexed; Scopus ID 2-s2.0-84961665297; SciVal Topic Prominence Percentile: 96.140; Journal IF2016: 2.201

- J18. Bortolini L.*, Bietresato M., 2016, **“Effect of seed-beds on the cultivation of Radicchio (Cichorium intybus L., Rubifolium group)”**. Contemporary Engineering Sciences, vol. 9 n. 21, pp. 997-1014 (tot. 18), ISSN: 1313-6569, DOI: 10.12988/ces.2016.6689

Keywords: Bed-former machine; Chicory; Response surface modelling (RSM); Ridging operation.

Scopus-indexed; Scopus ID 2-s2.0-84992503552; SciVal Topic Prominence Percentile: 31.383; OPEN ACCESS

- J19. Renzi M., Bietresato M.*, Mazzetto F., 2016. “*An experimental evaluation of the performance of a SI internal combustion engine for agricultural purposes fuelled with different bioethanol blends*”. Energy, vol. 115, pp. 1069-1080 (tot. 12), ISSN: 0360-5442, DOI: 10.1016/j.energy.2016.09.050

Keywords: Bioethanol; Biofuel mix; Environmental engine performances; Operative engine performances; Spark-ignited (Otto-cycle) internal combustion engine.

Scopus-indexed; Scopus ID 2-s2.0-84991408242; SciVal Topic Prominence Percentile: 97.568; Journal IF2016: 4.520

- J20. Bietresato M.*, Bisaglia C., Merola M., Brambilla M., Cutini M., Mazzetto F., 2017. “*An application of morphometry to artificial systems: the evolutionary study of farm tractors*”. Chemical Engineering Transactions, vol. 58, pp. 145-150 (tot. 6), ISSN 2283-9216, DOI: 10.3303/CET1758025. Originally presented in: XXXVII CIOSTA & CIGR Section V Conference. Palermo, Italia, 13-15 giugno 2017

Keywords: morphometry; evolution of tractors’ technical characteristics; time trends; OECD test reports.

Scopus-indexed; Scopus ID 2-s2.0-85026376797; SciVal Topic Prominence Percentile: 19.495; OPEN ACCESS

- J21. Bietresato M.*, Mazzetto F., 2017. “*Proposal of an advanced facility to perform static and dynamic tests of stability on agricultural machines*”. Chemical Engineering Transactions, vol. 58, pp. 151-156 (tot. 6), ISSN 2283-9216, DOI: 10.3303/CET1758026. Originally presented in: XXXVII CIOSTA & CIGR Section V Conference. Palermo, Italia, 13-15 giugno 2017

Keywords: stability of agricultural machines; innovative test equipment; spatial position of a vehicle’s centre of gravity; static tests of stability; dynamic tests of stability; tilting turntable; tilttable plane.

Scopus-indexed; Scopus ID 2-s2.0-85026432856; SciVal Topic Prominence Percentile: 92.052; OPEN ACCESS

- J22. Bietresato M.*, Mazzetto F., 2018. “*Increasing the safety of agricultural machinery operating on sloping grounds by performing static and dynamic tests of stability on a new-concept facility*”. International Journal of Safety and Security Engineering, vol. 8 n. 1, pp. 77-89 (tot. 12), ISSN: 2041-9031, DOI: 10.2495/SAFE-V8-N1-77-89. Originally presented in: the 7th International Conference on Safety and Security Engineering – SAFE 2017, Roma, Italia, 6-8 September 2017.

Keywords: stability of agricultural machines on slopes; innovative test-equipment; static tests.

Scopus-indexed; Scopus ID 2-s2.0-85047853568; SciVal Topic Prominence Percentile: 92.052; OPEN ACCESS

- J23. Bietresato M.*, Mazzetto F., 2019. “*Definition of the layout for a new facility to test the static and dynamic stability of agricultural vehicles operating on sloping grounds*”. Applied Sciences, vol. 9 n. 19, article 4135, pp. 1-40 (tot. 40), ISSN: 2076-3417, DOI: 10.3390/app9194135

Keywords: test-rig design-process; creative-design; ‘tiltable’ platform; ‘angleable’ semi-platforms; stability of agricultural machinery on sloping grounds; static and dynamic stability tests.

Scopus-indexed; Scopus ID 2-s2.0-85073293734; SciVal Topic Prominence Percentile: 92.052; Journal IF2019: 2.474; OPEN ACCESS

- J24. Bietresato M.*, Caligiuri C., Bolla A., Renzi M., Mazzetto F., 2019. “*Proposal of a predictive mixed experimental-numerical approach for assessing the performance of farm tractor engines fuelled with diesel-biodiesel-bioethanol blends*”. Energies, vol. 12 n. 12, article 2287, pp. 1-45 (tot. 45) ISSN: 1996-1073, DOI: 10.3390/en12122287

Keywords: farm tractor; diesel engine; response surface method; biodiesel; bioethanol; kinematic viscosity; engine performances; CO and NO_x emissions; exhaust gases opacity.

Scopus-indexed; Scopus ID 2-s2.0-85068793309; SciVal Topic Prominence Percentile: 99.850; Journal IF2019: 2.702, OPEN ACCESS

- J25. Caligiuri C.*, Renzi M., Bietresato M., Baratieri M., 2019. “*Experimental investigation on the effects of bioethanol addition in diesel-biodiesel blends on emissions and performances*”

of a micro-cogeneration system". Energy Conversion and Management, vol. 185, pp. 55-65 (tot. 11), ISSN: 0196-8904, DOI: 10.1016/j.enconman.2019.01.097

Keywords: Alternative fuels, Diesel engine, Bioethanol, Biodiesel, Micro CHP, Pollutant emissions reduction.

Scopus-indexed; Scopus ID 2-s2.0-85061576538; SciVal Topic Prominence Percentile: 99.850; Journal IF2019: 8.208

- J26. Bietresato M.*, Mazzetto F., 2020. "*Morphometry as a key to investigate the stability to a wind-induced rollover of agricultural equipment for irrigation*". International Journal of Safety and Security Engineering, vol. 10 n. 1, pp. 129-139 (tot. 11), ISSN: 2041-9031, DOI: 10.18280/ijss.100117. Originally presented in: the 8th International Conference on Safety and Security Engineering – SAFE 2019, Ancona, Italia, 23-25 September 2019.

Keywords: rollover of agricultural equipment, centre pivot and lateral move irrigation systems, morphometry, proportional upscaling/downscaling of a system, sensitivity analysis.

Scopus-indexed; Scopus ID 2-s2.0-85081946420; SciVal Topic Prominence Percentile: 92.052; OPEN ACCESS

- J27. Anifantis A.S., Cutini M., Bietresato M.*, 2020. "*An Experimental-Numerical Approach for Modelling the Mechanical Behaviour of a Pneumatic Tyre for Agricultural Machines*". Applied Sciences, vol. 10 n.10, article 3481, pp. 1-20 (tot. 20), ISSN: 2076-3417, DOI: 10.3390/app10103481

Keywords: farm tractor; vertical loading of tyre; tyre flattening; FE model; safety; response surface methodology.

Scopus-indexed; Scopus ID 2-s2.0-85085691956; SciVal Topic Prominence Percentile: 93.843; Journal IF2020: 2.679; OPEN ACCESS

- J28. Bietresato M.*, Mazzetto F., 2020. "*Stability tests of agricultural and operating machines by means of an installation composed by a rotating platform (the "turntable") with four weighting quadrants*". Applied Sciences, vol. 10 n. 11, article 3786, pp. 1-30 (tot. 30), ISSN: 2076-3417, DOI: 10.3390/app10113786

Keywords: static stability test; stability of machinery on sloping grounds; tiltable and rotating platform (turntable); incipient rollover; roll, pitch and yaw angles.

Scopus-indexed; Scopus ID 2-s2.0-85086133590; SciVal Topic Prominence Percentile: 92.052; Journal IF2020: 2.679; OPEN ACCESS

- J29. Maccioni L, Bietresato M.*, Borgianni Y., 2020. "*From the extraction of currently fulfilled requirements to value curves: a case-study in the field of harvesting machines for shell fruits and lessons learnt in engineering design*". Applied Sciences, vol. 10 n. 11, article 3809, pp. 1-27 (tot. 27) ISSN: 2076-3417, DOI: 10.3390/app10113809

Keywords: requirements elicitation; value curve; competing factors; engineering design; agricultural equipment; shell fruits-harvesting machines; patent search.

Scopus-indexed; Scopus ID 2-s2.0-85086120024; SciVal Topic Prominence Percentile: 46.673; Journal IF2020: 2.679; OPEN ACCESS

- J30. Bietresato M.*, Selmo F., Renzi M., Mazzetto F., 2021. "*Torque prediction model of a CI engine for agricultural purposes based on CFD and FVM methodologies validated with experimental tests*". Applied Sciences, vol. 11 n. 9, article 3892, pp. 1-38 (tot. 38), ISSN: 2076-3417, DOI: 10.3390/app11093892 (*invited contribution*)

Keywords: compression-ignition engine; torque; exhaust gas temperature; thermocouples; CFD; FVM; RSM; indirect estimation; agricultural machines.

Scopus-indexed; Scopus ID 2-s2.0-85105480433; SciVal Topic Prominence Percentile: 99.850; Journal IF2020: 2.679 (IF2021 not yet available); OPEN ACCESS

- J31. Bietresato M.*, Bolla A., Caligiuri C., Renzi M., Mazzetto F., 2021. "*The Kinematic Viscosity of Conventional and Bio-Based Fuel Blends as a Key Parameter to Indirectly Estimate the Performance of Compression-Ignition Engines for Agricultural Purposes*". Fuel, vol. 298, pp.1-12 (tot. 12), ISSN: 0016-2361, DOI: 10.1016/j.fuel.2021.120817

Keywords: Diesel engines, Fuel blends, Biodiesel, Bioethanol, Kinematic viscosity, Response Surface Methodology.

Scopus-indexed; Scopus ID 2-s2.0-85104342254; SciVal Topic Prominence Percentile: 99.850; Journal IF2020: 6.609 (IF2021 not yet available)

- J32. Caresana F., Bietresato M., Renzi M.*, 2021. "*Injection and Combustion Analysis of Pure Rapeseed Oil Methyl Ester (RME) in a Pump-Line-Nozzle Fuel Injection System*".

Energies, vol. 14 n. 22, article 7535, pp. 1-25 (tot. 25), ISSN: 1996-1073, DOI: 10.3390/en14227535

Keywords: compression ignition engine; biodiesel; B100; heat release rate; injection timing advance; injection pressure; biodiesel NO_x effect.

Scopus-indexed; Scopus ID 2-s2.0-85119380646; SciVal Topic Prominence Percentile: 99.850; Journal IF2020: 3.004 (IF2021 not yet available), OPEN ACCESS

J33. Bietresato M.*, Mazzetto F., 2022. “*A novel facility for statically testing the stability of vehicles: technical features and possibilities*”. International Journal of Transport Development and Integration, vol. 6 n. 2, ISSN: 2058-8313, DOI: 10.2495/TDI-V6-N2-107-121. Originally presented in: the 9th International Conference on Safety and Security Engineering – SAFE 2021 (online), 9-11 November 2021 then invited for the extension on an International Journal.

Keywords: vehicle stability, vehicle rollover, vehicle overturning, stability on sloping grounds, stability test, Euler angles, turntable, tilting platform, rotating platform.

Scopus-indexed; Scopus ID 2-s2.0-85140609795; SciVal Topic Prominence Percentile: not yet assigned; OPEN ACCESS

J34. Caligiuri C.*, Bietresato M., Algieri A., Baratieri M., Renzi M., 2022. “*Experimental Investigation and RSM Modeling of the Effects of Injection Timing on the Performance and NO_x Emissions of a Micro-Cogeneration Unit Fueled with Biodiesel Blends*”. Energies, vol. 15 n. 10, article 3586, pp. 1-19 (tot. 19), ISSN: 1996-1073, DOI: 10.3390/en15103586

Keywords: biodiesel; injection timing; micro-cogeneration; NO_x emissions reduction; response-surface methodology.

Scopus-indexed; Scopus ID not yet assigned; SciVal Topic Prominence Percentile: not yet assigned; Journal IF2020: 3.004 (IF2021 not yet available), OPEN ACCESS

Current memberships in scientific associations

- 2012-now: **AIIA** (*Associazione Italiana di Ingegneria Agraria – Italian Association of Agricultural Engineering*; <http://www.aiia.it/>); regular member.
- 2014-now: **ASABE** (*American Society of Agricultural and Biological Engineers*; <https://www.asabe.org/>); regular member
- 2016-now: **SIMAI** (*Società Italiana di Matematica Applicata ed Industriale – Italian Association of Applied and Industrial Mathematics*; <https://www.simai.eu/>); regular member
- 2016-now: **ASME** (*American Society of Mechanical Engineers*; <https://www.asme.org/>); regular member
- 2019-now: **ATI** (*Associazione Termotecnica Italiana – Italian Thermotechnical Association*; <https://www.atinazionale.it/>); regular member
- 2021-now: **AICARR** (*Associazione Italiana Condizionamento dell’Aria, Riscaldamento e Refrigerazione – Italian Association for Air Conditioning, Heating and Refrigeration*; <https://www.aicarr.org/>); regular member
- 2023-now: **SIGMA XI** (*research honor society for scientists and engineers, founded in 1886 at Cornell University by a group of engineering students and a junior faculty member, Frank Van Vleck*; <https://www.sigmaxi.org/>); full member; NB: **Membership in Sigma Xi is by invitation and requires nomination by two Sigma Xi members**

Other affiliations

- 2003–now: **Italian Engineers’ Roll**, seat of Padova, section “A” (*Senior Engineers*), sectors “all” (*Civil/Environmental, Industrial, Information*), registration nr. 4046

Useful links about Dr. Bietresato

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- Personal profile at **SCOPUS** (*website visible only for registered institutions*) <https://www.scopus.com/authid/detail.uri?authorId=18041671800>

- Personal profile at **RESEARCHER-ID / PUBLONS⁵ / WEB OF SCIENCE** (*website visible only for registered institutions*)
<https://www.webofscience.com/wos/author/record/2761913> (former link
, redirecting to Web of Science page: <http://www.researcherid.com/rid/E-7253-2015>,
<https://publons.com/researcher/1333245/marco-bietresato/>)
- Personal homepage at **GOOGLE SCHOLAR** (*public website*):
https://scholar.google.it/citations?hl=it&user=E6c6m1gAAAAJ&view_op=list_works&sortby=pubdate
- Personal homepage at **SCIPROFILES** (*public website*):
<https://sciprofiles.com/profile/58218>
- Personal homepage at **UNIUD** (*public website*):
<https://people.uniud.it/page/marco.bietresato>
- Personal homepage at **UNIBZ** (*public website*):
<https://www.unibz.it/en/faculties/sciencetechnology/academic-staff/person/32764-marco-bietresato>
- Personal homepage at **ACADEMIA.EDU**
(*public website; downloads available only for registered users*):
<https://unibz.academia.edu/MarcoBietresato>
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<https://www.researchgate.net/profile/Marco-Bietresato-2>
- Personal homepage at **ASME** (*public website*):
<https://community.asme.org/members/marcobietresato635/default.aspx>
- Personal homepage at **LINKEDIN**
(*public website; complete webpage available only for registered users*):
<https://www.linkedin.com/in/marco-bietresato-a541a31a7/>
- Personal homepage at **OWLINDEX**
(*website visible only for registered institutions*)
<https://www.owlindex.com/profiles/user-profiles/ Marco />

Date
October 2nd, 2023

Signature
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⁵ As communicated in an email sent by Clarivate on March 14th 2022 (object: “Your Publons profile is moving to the Web of Science”).