

CURRICULUM VITAE



PERSONAL INFORMATION

Name	PAOLO ALBERTELLI
Institution	Politecnico di Milano, Mechanical Engineering Department
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Mobile	
E-mail	paolo.albertelli@polimi.it
Nationality	Italian
Date of Birth	19/05/1978
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 Scopus ID	41761164300
 Publons – Web of Science	ID I-4563-2019

RESEARCH EXPERIENCE

- | | |
|--------------------------------|--|
| • Date (from – to) | Form December 2022 to present |
| • Occupation and Position held | Associate Professor (09/B1 – ING-IND/16) |
| • Institution | Politecnico di Milano - Mechanical Engineering Department - Manufacturing and Production System Research Group
Via La Masa 1, 20156, Milan, Italy |
| • Date (from – to) | Form December 2011 to November 2022 |
| • Occupation and Position held | Assistant Professor (09/B1 – ING-IND/16) |
| • Institution | Politecnico di Milano - Mechanical Engineering Department - Manufacturing and Production System Research Group
Via La Masa 1, 20156, Milan, Italy |
| • Date (from – to) | From March 2008 to December 2011 |
| • Occupation and Position held | Post-Doctoral Research Assistant |
| • Institution | Politecnico di Milano - Mechanical Engineering Department - Manufacturing and Production System Research Group
Via La Masa 1, 20156, Milan, Italy |
| Notes | Some research activities were developed at Consorzio MUSP (Machine Tool Laboratory) |

PROFILE DESCRIPTION

RESEARCH AND INDUSTRIAL COLLABORATIONS

Paolo Albertelli has been developing his research activities as an Associate Professor of the Mechanical Engineering Department (academic discipline ING-IND/16) of Politecnico di Milano. His research has been focused mainly on the development of Advanced Manufacturing Solutions and Sustainability in manufacturing.

He is the author of more than 50 publications in peer-reviewed journals (the most relevant ones are below cited) and international conferences (Appendix C). (Google Scholar: citations 1267, h-index=20, h10-index=29, **Scopus: citations 956, h-index=18, June 2024**)).

A branch of his research deals with machining [31] and specifically with Machine Tool dynamics [37] and cutting stability (e.g., chatter). Regenerative chatter modelling [27][33], cutting stability prediction [21][36], chatter instability detection [24], vibration suppression [16][18][20][32][34][38][39] and the development of advanced monitoring solutions [22][30] are some of the covered topics. He is currently working on Prognostics and Health Management PHM of Machine Tools [21] and their functional modules [15]. He even started working on robotic machining.

Another branch of his research is focused on Energy consumption (assessment, identification, modelling and reduction) in Machine Tools [25][26][28][29], in linked subunits and in other Automatic Machines, [9]. In the framework of manufacturing sustainability, he is working on cryogenics [17][19][23][31][35] and minimum quantity lubrication MQL as feasible and environmental-friendly cooling/lubricating solutions for machining hard to cut materials and for some forming processes.

He is currently working on remanufacturing processes and their optimization. Moreover, his research activities include circularity of carbon fiber reinforced polymers CFRP and 3D printed of large scale CFRP components.

The adopted research methodologies range from the Finite Element FE modelling to the analytical developments and from the experimental procedures to the data analysis techniques.

He is author of a patent [1] (Appendix C).

He has been involved in several Research Founded Projects both as principal investigator and as researcher (Appendix A)

His research activities are characterized by international collaborations (both in the framework of European founded projects and developed as personal initiatives. Loughborough University (UK) [37], The University of British Columbia (Canada) [23] and the Budapest University (Hungary)) are some universities involved in the collaborations both from the scientific perspective and considering the exchange of master's degree students.

He collaborates with national research institutes (mainly with University of Udine [27][33] and STIIMA CNR [28][37][38][39]).

He permanently collaborates with companies and specifically with machine tools manufacturers (Appendix A).

TEACHING ACTIVITIES

He has been involved in several university courses at Politecnico di Milano as **associate professor**, average credits **CFU/years=15**, (**1 course editions**: Principi Progettazione Tecnologia Meccanica, Mechatronics for sustainable manufacturing)

He has been involved in several university courses at Politecnico di Milano as **aggregate professor**, average credits **CFU/year=6.6** (15 courses editions: Machine Tools Manufacturing Systems, Materials and Manufacturing for Energy Systems, Tecnologia Meccanica e Qualità, Principi progettazione Tecnologia Meccanica, Macchine Utensili e Sistemi di lavorazione a controllo numerico) and **teaching assistant**, average **CFU/year=8.7** (19 courses editions:

Tecnologia Meccanica 1, Tecnologia Meccanica 2, Tecnologia Meccanica I, Tecnologia meccanica II, Materials and Manufacturing for Energy Systems, Macchine Utensili e Sistemi di lavorazione a controllo numerico) since 2005 (details are reported in Appendix B)

ROLES

<i>AITEM</i>	Member of the Italian Association of Manufacturing Technology (www.aitem.org)
<i>CONSORZIO MUSP</i>	On behalf of Politecnico di Milano, member of the Scientific Committee of Consorzio MUSP (www.musp.it)
<i>ART-ER</i>	On behalf of Politecnico di Milano, member of the Scientific Committee and member of the steering board of ART-ER (Attrattività, Ricerca, Territorio Emilia-Romagna) https://www.art-er.it/
<i>CLUST-ER MECH</i>	Member of the Scientific Committee of CLUST-ER MECH (regional industrial research and innovation system) Meccatronica e Motoristica Emilia-Romagna, Italy https://mech.clust-er.it/en/
<i>VALUE CHAIN DAAMA</i>	Vice-Chair of the Value Chain (communities of public and private bodies) DaAma (Digital and Advanced Manufacturing) https://mech.clust-er.it/en/value-chain/digital-and-advanced-manufacturing/ - Regione Emilia-Romagna, Italy.
<i>MANUTHON-EMANUTHON</i>	On behalf of AITeM is the responsible (from 2019 to 2022) of the organization of MANUTHON (www.manuthon.it) and eMANUTHON (www.emanuthon.it), initiatives of OPEN INNOVATION. MANUTHON and eMANUTHON are the first registered Italian Hackathons on manufacturing
<i>JOURNALS REVIEWER</i>	<p>Reviewer for the following international peer-reviewed journals:</p> <p>Since 2014, reviewer for the journal "International Journal of Machine Tool and Manufacture"</p> <p>Since 2014, reviewer for the "International Journal of Advanced Manufacturing Technology"</p> <p>Since 2013, reviewer for the journal "Measurements"</p> <p>Since 2013, reviewer for the journal "Machining Science and Technology"</p> <p>Since 2014, reviewer for the journal "CIRP Procedia"</p> <p>Since 2016, reviewer for the journal "Journal of Cleaner Production"</p> <p>Since 2017, reviewer for the journal "Mechanical Systems Signal Processing"</p> <p>Since 2017 reviewer for the journal "Advances in Mechanical Engineering"</p> <p>Since 2018 reviewer for the journal "Nanomanufacturing and Metrology"</p> <p>Since 2018 reviewer for the journal "Journal of Manufacturing Processes"</p> <p>Since 2019 reviewer for the journal "Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture"</p> <p>Since 2020 reviewer for the journal "IEEE Access"</p> <p>Since 2020 reviewer for the journal "Precision Engineering and Manufacture Green Technology"</p> <p>Since 2020 reviewer for the journal "Journal of Sound and Vibration"</p> <p>He reviewed more than 67 scientific papers globally (source Publons www.webofscience.com)</p>

AWARDS AND RESPONSIBILITIES

<i>PHD SCHOLARSHIP</i>	<p>2020 - Principal Investigator (as supervisor) of a PhD scholarship (Interdisciplinary Scholarships) funded by Politecnico di Milano. Topic: Innovative simulations techniques (CFD/FEM coupling) for fostering the production sustainability and reducing the workers' health/safety concerns</p> <p>2018 – Principal Investigator (as supervisor) of a PhD scholarship funded by Regione Emilia-Romagna. Topic: Prognostics and Health Management in Machine Tool and Manufacturing Industry</p>
<i>CNR - MINISTERO SVILUPO ECONOMICO</i>	2017 – Designated by the Mechanical Engineering Department (Politecnico di Milano) as Responsible for the activity "Metodologia per l'analisi dell'efficienza energetica dei moduli principali dei beni strumentali". Research developed in the framework of "Accordo di Programma CNR – Ministero dello Sviluppo Economico"
<i>FFABR</i>	2017 – Principal Investigator of "Fondo Finanziamento per le attività base di ricerca FFABR" – ANVUR
<i>UCIMU</i>	Supervisor/Co-supervisor or tutor of several theses that were honoured with the UCIMU National Best Thesis Awards (see Appendix B)

AITEM - SOAVI
 Politecnico di Milano “Progetto
 Giovani Ricercatori”

2011 and 2022 – Supervisor of a Master of science degree thesis that was honoured with the AITeM National Best Thesis Awards in memory of Professor Soavi
 2012 – Principal Investigator of the “Progetto Giovani Ricercatori 2012” that was funded by the Mechanical Engineering Department (Politecnico di Milano)

FONDAZIONE POLIZZOTTO

2007 – Honoured with the Fondazione Polizzotto Scholarships for PhD students

EDUCATION

<ul style="list-style-type: none"> • Date (from – to) • Title of Qualification Awarded • Institution • Thesis Title • International Standard Classification 	<p>March 2005 - June 2008</p> <p>Doctoral Studies - PhD in “<i>Manufacturing and Production Systems</i>” with merit Politecnico di Milano - Mechanical Engineering Department - Via La Masa 1, 20156, Milan, Italy Some research activities were developed at Consorzio MUSP (www.musp.it) “High Performance Spindle Design Methodologies for high-speed Machining” ISCED 8 (ISCED 2011)</p>
<ul style="list-style-type: none"> • Date (from – to) • Title of Qualification Awarded • Institution 	<p>From October 2007 to March 2008</p> <p>Visiting Exchange PhD Scholar Loughborough University (www.lboro.ac.uk) - Wolfon School of Mechanical and Manufacturing Engineering, Leicestershire (UK), LE11 3TU</p>
<ul style="list-style-type: none"> • Date (from – to) • Title of Qualification Awarded • Institution • International Standard Classification • Thesis Title 	<p>From September 2000 to December 2004</p> <p>Master of Science MSc in Mechanical Engineering (Robotics and Automation) 100/100 cum laude Politecnico di Milano – Industrial Engineering ISCED 7 (ISCED 2011) “Simulazione del comportamento meccanico funzionale di un centro di lavoro” – the thesis was honoured with the UCIMU National Best Thesis Awards (www.ucimu.it)</p>
<ul style="list-style-type: none"> • Date (from – to) • Title of Qualification Awarded • Institution • International Standard Classification • Thesis Title 	<p>September 1997 to July 2000</p> <p>Bachelor of Science BSc in Mechanical Engineering 100/100 cum laude Politecnico di Milano – Industrial Engineering – Piacenza Campus ISCED 6 (ISCED 2011) “Progettazione attrezzatura per carrelli elevatori” – the thesis was developed during a stage in the Bolzoni Auramo company (https://it.bolzonigroup.com/)</p>

LANGUAGE QUALIFICATIONS

<ul style="list-style-type: none"> • Mother Tongue • Other Tongues • Certifications 	<p>Italian English fluent Shenker level 75/100; TOEFL 227/300; GRADED EXAMINATIONS IN SPOKEN ENGLISH TRINITY COLLEGE- LEVEL 8/12</p>
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APPENDIX A: RESEARCH PROJECTS

RESEARCH ACTIVITY DESCRIPTION

AS PRINCIPAL INVESTIGATOR OR SCIENTIFIC RESPONSIBLE

- European
 - 2023-2026 – CL4 -TWIN-TRANSITION-01-07 Horizon Europe. Title: RemaNet (Remanufacturing Network) - Proposal number: 101091604)
- National
 - 2022-2025 ECOSISTER PNRR Spoke 1: Ecosystem for sustainable Transition in Emilia-Romagna - Materials for sustainability and ecological transition (<https://ecosister.it/>) National Recovery and Resilience Plan (NRRP), Mission 4, Component 2 Investment 1.4, funded from the European Union – NextGenerationEU.
 - 2015-2018 “Nuovo processo di asportazione di truciolo supportato da fluido criogenico per materiali aeronautici di difficile lavorabilità: incremento della produttività, riduzione dei costi ed eliminazione degli oli da taglio - Ministero dello Sviluppo Economico – Fondo Crescita Sostenibile FCS - Horizon 2020”. Industrial partner: Jobs SpA (www.jobs.it). Linked publications on cryogenic machining: peer-reviewed journals [17][23], conferences [1][5]
 - 2017 – Designated by the Mechanical Engineering Department (Politecnico di Milano) as Responsible for the “Metodologia per l'analisi dell'efficienza energetica dei moduli principali dei beni strumentali – WP 4.1” project. Research developed in the framework of “Accordo di Programma CNR – Ministero dello Sviluppo Economico. Linked publications on energy consumption in machine tools: peer-reviewed journals [25]
 - 2014-2018 Responsible for the activities of WP1.C/WP1.D/WP2 of “Progetto CFI – Cluster Tecnologico Nazionale Fabbrica Intelligente – High Performance Manufacturing” – MIUR Ministero dell'Istruzione dell'Università e della Ricerca (2014/2018) – (CTN01_00163_216758). Industrial partners: Mandelli Sistemi (www.mandelli.com) , Jobs SpA (www.jobs.it), GTS (Global Technical Service <http://www.gtsservice.net/>) and HSD (www.hsd.it), Ferraioli Officine <https://www.ferraioliofficine.com/> . Linked publications: peer-reviewed journals [30][22][24]
 - WP1.C/WP1.D: Development of monitoring and control solutions for machine tools
 - WP2: Lightweight design of machine tools with a low environmental impact
- Regional
 - 2024-2025 KwoledgeX POR FESR 2021-2027 – The project is focused on the formalization of human expertise in manufacturing and how this knowledge can be used for training young employees
 - 2024-2025 ReclaimER (PG/2023/312460) POR FESR 2021-2027 - REcyCLE Automotive thermoset for Emilia-Romagna – In this project the research is focused in the development of circular solutions in carbon fiber reinforced polymers CFRP
 - 2019-2021 – DIGIMAN “Soluzioni per la DIGitalizzazione delle aziende nel settore MANifatturiero” - POR FESR Region Emilia-Romagna – (PG/2018/631166). DIGIMAN proposes the development of a Cyber Physical System that embraces and completes the machine (Physics part) coupled with an Augmented Manufacturing Platform or AMP (Cyber part).
- Academic:
 - 2012 – Principal Investigator of the “Progetto Giovani Ricercatori 2012” that was funded by the Mechanical Engineering Department (Politecnico di Milano – internal code: UA.A.RRR.DMEC.ISTEC.STUD.ABI1CATE01). Development of an advanced monitoring solution for cutting forces and surface quality real time estimation. Linked publications: peer-reviewed journal [30]
- Industrial:
 - 2022 - Co-investigator of the “Ottimizzazione della linea produttiva e studio

soluzioni alternative di prodotto di Minifaber S.p.A” project that was funded by Minifaber S.p.A. (<https://www.minifaber.com/>). (Mechanical Engineering department - Politecnico di Milano – internal code: 043/22CR). Development of a sustainable lubricating solution for metal forming.

- 2021 - Co-investigator of the “Towards the robotization of polishing/grinding operations” project that was funded by Sunher (<https://www.sunher.com/en/>) (Mechanical Engineering department - Politecnico di Milano – internal code 150/21CR)
- 2020 – Principal Investigator of the “Monitoraggio lavorazioni e riduzione delle vibrazioni in fresatura” that was funded by PAMA SpA (www.pama.it) (Mechanical Engineering department - Politecnico di Milano – internal code: 082/20CR). Development of a monitor and control system for reducing machine tool vibrations. Linked publication: peer-reviewed journal [20]
- 2020 – Co-investigator of the “Studio e sviluppo di tecniche MQL abbinate a raffreddamento a gas” project that was funded by MWM SpA (www.mql.it) (Mechanical Engineering department - Politecnico di Milano - internal code: 041/21CR). Development of a hybrid mql-cryogenic solution for turning and drilling

INVOLVED IN THE PROJECT ACTIVITIES

- European:
 - 2013-2016 “EMVeM: Energy efficiency Management for Vehicles and Machines”. Marie Curie Action - FP7-PEOPLE (ID: 315967).
 - 2011-2014 “EMC2 Eco-Manufactured transportation means from Clean and Competitive Factory” - FP7-NMP. (ID: 285363). Machine Tool Energy Assessment and Modelling. Industrial Partner: COMAU (<https://www.comau.com>)
- National:
 - 2022-2025 ECOSISTER PNRR Spoke 3: Ecosystem for sustainable Transition in Emilia-Romagna - Green manufacturing for a sustainable economy (<https://ecosister.it/>) National Recovery and Resilience Plan (NRRP), Mission 4, Component 2 Investment 1.4, funded from the European Union – NextGenerationEU.
 - 2011-2014 “MICHELANGELO” Industria 2015 – Ministero dello sviluppo economico (MI01_00237). In collaboration with Consorzio MUSP and Mandelli Sistemi. Development of a monitor and control solution for suppressing chatter vibrations. Linked Patents: [1]
 - 2009-2012 “EROD Energy Reduction Oriented Design (Industria 2015)” - Ministero dello Sviluppo Economico EE01_00027. Industrial partners: Jobs SpA and Biesse SpA. Linked publication on energy consumption modelling: peer-reviewed journal [25]
 - 2009-2012 “Progetto FIT – Fondo per l'Innovazione Tecnologica - Nuovo processo per la realizzazione di centri operativi per lavorazioni ad alta efficienza nel settore aeronautico ed automobilistico, costruiti con materiali innovativi/leggeri, multi-funzionali ed a bassa densità termica”. Ministero dello Sviluppo Economico E01/0726/02/X09. Linked Publication on machine tool damping improvement: conferences [12]
 - 2005-2008 “TECNOLOGIE PRIORITARIE: Realizzazione di Centri di Lavoro Specifici per lavorazione di leghe ad applicazione aeronautica”. Developed in collaboration with Consorzio MUSP and Mandelli Sistemi (www.mandelli.com)
- Regional:
 - 2024-2025 – INSIDE - INDUSTRIAL IOT STANDARD FOR INTEROPERABLE DEVICES OF EMILIA-ROMAGNA (POR FESR 2021-2027). The involvement in the project activities is related to the development of prognostics solutions
 - 2016-2019 Total Efficiency 4.0 – “Efficientamento Energetico e Digitalizzazione Cicli Vulcanizzazione – WP 3”, Region Lombardia (2016/2019). ID 235307. Industrial partners: Pirelli Tyres (<https://www.pirelli.com>). Development of an energy model of a vulcanization press
 - 2016-2018 “Hi-SCORE - Hi performances, Sustainability and COst REduction in machine tool industry” - Region Emilia Romagna - POR-FESR
 - 2017-2018 “SENSE&MILL” POR-FESR Region Emilia-Romagna (803442).

Development of a monitor solution for machine tools based on vision systems and cyber-physical systems. Industrial partner: MARPOSS (<https://www.marposs.com>). Linked Publications: peer-reviewed journal [22]

- 2013-2014 “Creazione di TECNOPOLI” - POR FESR – Region Emilia-Romagna
- 2008-2010 “MUSP 2: PRRIITT – Misura 3.4.A Laboratori di ricerca e trasferimento tecnologico – Centri per l’innovazione” D.G.R. n.1853/07. Project n.22.” Region Emilia-Romagna
- 2006-2008 “MUSP 1 - Programma Regionale per la Ricerca Industriale, l’Innovazione e il Trasferimento Tecnologico, Misura 3.4 Sviluppo di rete-Azione A - Laboratori di ricerca e trasferimento tecnologico. Progetto Laboratorio per lo studio delle Macchine Utensili e dei Sistemi di Produzione, project n 30. Region Emilia-Romagna
- 2008-2010 “Mill4D” PRRIITT Region Emilia-Romagna, project n. 194. In collaboration with Consorzio MUSP and Capellini electrospindles Srl. Development of a monitoring and vibration control systems for electrospindles (<http://www.capellinitechnology.com>).
- 2005-2008 “Nuovo sistema di produzione modulare ad alte prestazione per lavorazioni di asportazione di truciolo di pezzi di medie-grandi dimensioni” PRRIITT Region Emilia-Romagna, in collaboration with Consorzio MUSP and Mandelli Sistemi (www.mandelli.com)
- 2005-2007: “Xevo” PRRIITT Region Emilia-Romagna. Developed in collaboration with Consorzio MUSP and Capellini Srl (<http://www.capellinitechnology.com>). Linked Publication on advanced spindle modelling for High Speed Machining: conference [23]

APPENDIX B: TEACHING EXPERIENCE

TEACHING EXPERIENCE AS AGGREGATE PROFESSOR

Academic Year A.Y.	University – Degree -Course Title - Credits (CFU)
A.Y.2023/2024	Politecnico di Milano – Master of Science in Mechanical Engineering – Mechatronics for sustainable Manufacturing (English) course – 10 CFU
A.Y. 2021/2022	Politecnico di Milano – Master of Science in Mechanical Engineering
A.Y. 2020/2021	Machine Tools Manufacturing System (English) course – 8 CFU
A.Y. 2019/2020	
A.Y. 2018/2019	Politecnico di Milano – Master of Science in Mechanical Engineering - Machine Tools Manufacturing System (English) course – 10 CFU
A.Y. 2017/2018	
A.Y. 2015/2016	
A.Y. 2023/2024	Politecnico di Milano – Bachelor of Science in Energy Engineering
A.Y. 2022/2023	Principi Progettazione e Tecnologia Meccanica (integrated course) – 5 CFU
A.Y. 2021/2022	
A.Y. 2020/2021	
A.Y. 2019/2020	
A.Y. 2018/2019	
A.Y. 2017/2018	
A.Y. 2014/2015	Politecnico di Milano – Master of Science in Energy Engineering for Environmentally Sustainable World EESW
A.Y. 2012/2013	Materials and Manufacturing for Energy Systems course (integrated course - English) – 4 CFU
A.Y. 2013/2014	Politecnico di Milano – Bachelor of Science in Management Engineering
	Tecnologia Meccanica e Qualità – 5 CFU
A.Y 2008/2009	Politecnico di Milano – Bachelor of Science in Mechanical Engineering
	Macchine Utensili e Sistemi di lavorazione a controllo numerico – 7.5 CFU

EXPERIENCE AS TEACHING ASSISTANT

Academic Year A.Y.	University – Degree -Course Title - Credits (CFU)
A.Y. 2022/2023	Politecnico di Milano – Bachelor of Science in Mechanical Engineering
A.Y. 2019/2020	Tecnologia Meccanica 1 – 10 CFU
A.Y. 2018/2019	
A.Y. 2017/2018	
A.Y. 2016/2017	
A.Y. 2015/2016	
A.Y. 2014/2015	Politecnico di Milano – Bachelor of Science in Energy Engineering
A.Y. 2013/2014	Principi Progettazione e Tecnologia Meccanica (integrated course) – 5 CFU
A.Y. 2015/2016	Politecnico di Milano – Master of Science in Energy Engineering for Environmentally Sustainable World EESW
A.Y. 2013/2014	
A.Y. 2011/2012	Materials and Manufacturing for Energy Systems course (integrated course - English) – 4 CFU
A.Y 2013/2014	Politecnico di Milano – Master of Science in Mechanical Engineering
A.Y 2011/2012	Macchine Utensili e Sistemi di lavorazione a controllo numerico – 12 CFU
A.Y. 2012/2013	Politecnico di Milano – Master of Science in Mechanical Engineering

A.Y. 2010/2011	Tecnologia meccanica 2 – 10 CFU
A.Y. 2008/2009	Politecnico di Milano – Bachelor of Science in Mechanical Engineering Tecnologia meccanica I – 10 CFU
A.Y. 2009/2010	Politecnico di Milano – Master of Science in Mechanical Engineering
A.Y. 2008/2009	Tecnologia meccanica II – 10 CFU
A.Y. 2006/2007	
A.Y. 2005/2006	

THESES ADVISING

PhD	Supervisor of 4 Phd Candidates
MSc	Supervisor/Co-Supervisor or Tutor of more than 30 Master of Science students 9 theses were honoured with the UCIMU National Best Thesis Awards . 1 thesis was honoured with the AlTeM National Best Thesis Awards in memory of Professor Soavi .
BSc	Supervisor or tutor of more than 45 Bachelor of Science students Some of them were honoured with the UCIMU National Best Thesis Awards

APPENDIX C: PUBLICATIONS AND PATENTS

PEER-REVIEWED INTERNATIONAL JOURNALS

- [1] Albertelli P., Monno M., Modelling of an innovative cryogenic assisted dieless sheet metal piercing process, *Journal of Manufacturing Processes* (under review 2)
- [2] Pelosin M., Duronio, Lucchini T., Albertelli P. Numerical investigation of industrial relevant flashing spray systems:GDI Methanol injection and R134a cryogenic spray (submitted)
- [3] Weiting C., Xing T., Huan H., Jiayu L., Albertelli P. Analysis and Experimental Validation of a novel Piezoelectric Shunting Vibration Absorber for Robust and Effective Vibration Reduction and Isolation (under review)
- [4] Bernini L., Albertelli P., Monno M. Hybrid heterogeneous prognosis of drill-bits through model-based spindle power analysis and direct tool inspection. *The International Journal of Advanced Manufacturing Technology* (under review)
- [5] Gokulu T., Defant F., Albertelli P. (2024) Stability analysis of multi-insert rotating boring bar with stiffness variation. *Journal of Sound and Vibration* 586-118497:1:21. doi: 10.1016/j.jsv.2024.118497
- [6] Pelosin M., Albertelli P., Lucchini T. (2024) A novel simulation methodology for orthogonal cryogenic machining with CFD spray cooling integration. *Journal of Manufacturing Processes* 120-30: 61-73 doi: 10.1016/j.jmapro.2024.04.014
- [7] Bernini L., Malguzzi U., Albertelli P., Monno M. (2024) Hybrid prognostics to estimate cutting inserts remaining useful life based on direct wear observation. *Mechanical Systems and Signal Processing* 210, 1-22. doi: 10.1016/j.ymssp.2024.111163
- [8] Bernini L., Albertelli P., Monno M., (2023) Robust tool condition monitoring in Ti6Al4V milling based on specific force coefficients and growing self-organizing maps, *The International Journal of Advanced Manufacturing Technology*, 128:3761-3774. doi: 10.1007/s00170-023-11930-z
- [9] Pentakota L.K., Albertelli P., Strano M. (2023) Energy efficiency of the vulcanization process of a bicycle tyre. *International Journal of Precision Engineering and Manufacturing-Green Technology*. doi 10.1007/s40684-023-00507-6
- [10] Bernini L., Albertelli P., Monno M. (2023) Mill condition monitoring based on instantaneous identification of specific force coefficients under variable cutting conditions. *Mechanical Systems and Signal Processing*, 185:1.17. doi: 10.1016/j.ymssp.2022.109820
- [11] Carbone N., Bernini L., Albertelli P., Monno M. (2023) Assessment of milling condition through image processing of the produced surfaces. *The International Journal of Advanced Manufacturing Technology*, 124 (5): 1681–1697. doi: 10.1007/s00170-022-10516-5
- [12] Albertelli P., Strano M., Monno M., (2023) Simulation of the effects of cryogenic liquid nitrogen jets in Ti6Al4V milling. *Journal of Manufacturing Processes*, 85: 323-244. doi: 10.1016/j.jmapro.2022.11.053

- [13] Bernini L., Albertelli P., Monno M. (2023) Mechanistic force model for double-phased high-feed mills. *International Journal of Mechanical Sciences*, 237:1-22 doi:10.1016/j.ijmecsci.2022.107801
- [14] Defant F., Ghezzi D., Albertelli P. (2023) Development of a generalized extended harmonic solution for analyzing the combination of chatter suppression techniques in milling. *Journal of Sound and Vibration*, 543: 1-18. doi: j.jsv.2022.117368
- [15] Bernini L., Waltz D., Albertelli P., Monno M. (2021) A novel prognostics solution for machine tools sub-units: The hydraulic case. *Proc IMechE Part B:J Engineering Manufacture*, 236-9: 1-17. doi: 10.1177/09544054211064682
- [16] Albertelli P., Esposito S., Mussi V., Goletti M., Monno M. (2021) Effect of metal foam on vibration damping and its modelling. *The International Journal of Advanced Manufacturing Technology*, 117: 2349–2358. doi: 10.1007/s00170-021-07172-6
- [17] Albertelli P., Mussi V., Strano M., Monno M. (2021) Experimental investigation of the effects of cryogenic cooling on tool life in Ti6Al4V milling. *The International Journal of Advanced Manufacturing Technology*, 117: 2149–2161. doi: 10.1007/s00170-021-07161-9
- [18] Albertelli P., Mussi V., Monno M. (2021) Development of generalized tool life model for constant and variable speed turning. *The International Journal of Advanced Manufacturing Technology*, 118: 1885-1901. doi: 10.1007/s00170-021-08017-y
- [19] Albertelli P., Monno, M. (2021) Energy assessment of different cooling technologies in Ti-6Al-4V milling. *International Journal of Advanced Manufacturing Technology*, 112: 3279–3306. doi: 10.1007/s00170-020-06575-1
- [20] Defant F., Albertelli P. (2020) A novel harmonic solution for chatter stability of time periodic systems. *Journal of Sound and Vibration*, 490:115719. doi: 10.1016/j.jsv.2020.115719
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- [22] Torta M., Albertelli P, Monno M. (2020) Surface morphology prediction model for milling operations. *Int. J. Adv. Manuf. Technol.* 106: 3189–3201. doi:10.1007/s00170-019-04687-x
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Milan, 2024 June

Paolo Albertelli

A handwritten signature in black ink, reading "Paolo Albertelli". The signature is stylized with a large, flowing 'P' and a distinct 'A'.