CURRICULUM VITAE OF GIOVANNI TOTIS INCLUDING SCIENTIFIC AND ACADEMIC ACTIVITIES AS WELL AS SCIENTIFIC PUBLICATIONS PREPARED IN ACCORDANCE WITH ARTICLES 46 AND 47 OF THE DPR 445/00

1. General information

Name and surname:	**Giovanni Totis**
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Institute	University of Udine
Department	Polytechnic Department of Engineering and Architecture – D.P.I.A.
Institute website	https://www.uniud.it/
Department website	http://www2.diegm.uniud.it/diegm/
Laboratory website	https://www.lamafvg.it/
Role	Researcher and Aggregate Professor at D.P.I.A.
Title	PhD, Ing.
Short CV	Master's degree in Mechanical Engineering at the University of Udine in 2004. PhD in 2008. Since 2012 Researcher and Aggregate Professor at the University of Udine, where he teaches Manufacturing Technology. International collaborations with Fraunhofer Institute and WZL of RWTH University of Aachen and with Budapest University of Technology and economics, where he was Visiting Researcher during spring 2017. He participated to many EU collaborative/competitive research projects, as well as to several research projects financed by Friuli Venezia Giulia in collaboration with industries. Main fields of interest are: modelling the dynamics of machining operations, solving vibrational problems affecting cutting tools and machining operations, design of innovative sensors and development of multisensory systems for process monitoring, adaptive control of CNC machine tools and manufacturing processes, experimental modal analysis and innovative identification techniques applied to electro-mechanical devices and systems, intelligent machine tools and manufacturing systems, CAD/CAM/CNC programming and process optimization, machinability of metallic materials and development of innovative cutting tools, experimental research and numerical modelling of Selective Laser Melting technique, statistical techniques for process control and for cost estimation. Active researcher with h-index=15 and more than 40 publications on international journals indexed on SCOPUS and ISI WEB database. From 2017 Giovanni Totis is a member of the Reviewing Committee of the International Journal of Machine Tools (now with the role of Assistant Editor) and Manufacture and of the Reviewing Committee of Mechanical Systems and Signal Processing (now with the role of Handling Editor).

He is co-responsible for the Laboratory of Advanced Mechatronics – LAMA FVG – at the University of Udine, equipped with a last generation industrial Selective Laser Melting machine and a 5-axes CNC milling machine.

Since 2017 Giovanni Totis has been a member of the Academic Board of the Doctoral Course in Industrial and Information Engineering at his own department.

2. National Scientific Qualification

In 26/03/2018 Giovanni Totis achieved the National Scientific Qualification for becoming Associate Professor in Sector 09/B1, ING-IND/16 Manufacturing Systems and Technologies.

3. Academic formation

- 2004: Master degree in Mechanical Engineering, University of Udine, Udine, Italy
- 2008: Doctor of Philosophy degree in "Industrial and Information Engineering", University of Udine, Udine, Italy, specialization in Manufacturing Systems and Technologies (PhD Thesis title: "Research on the Dynamics of Milling").

4. Work experiences

- 2008-2012: Research grant holder at the Department of Electrical, Managerial and Mechanical Engineering, University of Udine, Udine, Italy. In July 2011 winner of a public competition for a permanent research position at the University of Udine, SSD ING-IND/16. From December 2012, I work as a permanent, full-time researcher at the University of Udine.

5. Affiliations

- From 2006: Member of the Italian Association of Manufacturing Technology – AITEM, and member of the division "Machining" from 2011.
- From 2006 to 2016: registered as Professional Engineer of the Province of Udine, position number 2779 (Section A), areas abc (Civil and Environmental - Industrial - Information).

6. Main fields of scientific interest

Main fields of scientific interest are:

- modelling the dynamics of machining operations;
- solving vibrational problems affecting cutting tools and machining operations;
- design of innovative sensors and development of multisensory systems for process monitoring;
- experimental modal analysis and innovative identification and filtering techniques applied to electro-mechanical devices and systems;
- intelligent machine tools and manufacturing systems;
- CAD/CAM/CNC programming and process optimization;
- machinability of metallic materials and development of innovative cutting tools;
- design and testing of complex lattice structures produced by Selective Laser Melting technique.

7. Research projects at European, national and regional level

- 2005-2007: participation to the national PRIN project - "Advanced sensor monitoring of intelligent machining systems".
- April 2008 – December 2011: participation to the Research Project "New methodologies for machining difficult to cut materials" financed by Friuli Venezia Giulia, L.R.26/2005 art.23 DPReg 120/2007.
- October 2009 – February 2012 : participation to the European Research Project "THERMOGRIND – Thermally Controlled Rotational Grinding of Sapphire Wafers for Highly Efficient Manufacturing of Modern White LED Light Sources", Seventh Framework Programme, Capacities, Grant Agreement no. 232600 for research for SMEs. I collaborated to the development of the closed-loop adaptive control of the grinding process, as well as to many other related activities.
- January 2013 – March 2015: participation to the European research project "SHARTEC", funded under the Programme for Cross-Border Cooperation Italy-Slovenia 2007-2013 by the European Regional Development Fund and national funds. Objective of the project was to promote the development of SMEs in Slovenia and Friuli Venezia Giulia in the sector of mechanical production, through the creation of an effective research network, innovation and trans-border technology transfer. I collaborated to the organization of many technical seminars and I dedicated to several applied research activities.
- From march 2015: collaboration to the creation of the "Laboratory for Advanced Mechatronics – LAMA FVG", directly financed by Italian Government and by the Friuli Venezia Giulia Region, by means of the "Programma Attuativo

Regionale FSC 2007-2013, Fondo per lo Sviluppo e la Coesione, Attività/Linea d'azione 3.1.2 - Miglioramento dell'offerta di ricerca, innovazione e trasferimento tecnologico".

8. Research contract activities for industries

I executed research contract activities for many industries. These activities were co-financed by FVG region or entirely paid by industries. Specifically, I performed several technical advisory activities and experimental activities for manufacturers of high-precision mechanical parts, cutting tool manufacturers and machine tools manufacturers. In case of need I can provide further details.

9. International scientific collaborations and Visiting Researcher periods

- 2007: Visiting Researcher at WZL, University RWTH of Aachen, Germany. During the period spent at the Institute I have been involved in studying the dynamics of milling; I also collaborated in the development of an innovative rotating dynamometer for measuring cutting forces in milling.
- 2008: Visiting Researcher at WZL, University RWTH of Aachen, Germany. During this period I collaborated in the finalization of the innovative dynamometer for milling started in 2007.
- 2017: Visiting Researcher at the University of Technology and Economics of Budapest, Department of Applied Mechanics, through formal research grant assignment (fellowship). The research activity consisted in the development of methodologies for the modeling, prediction and suppression of anomalous vibrations in milling (chatter), and it was carried out within the European ERC project called SIREN-Stability Islands: Performance Revolution in Machining.

Other international collaborations:

- IPT Fraunhofer Institut of Aachen, Germany, during Thermogrind project (2011).
- Technical Faculty of Engineering, University of Rijeka - RITEH, Croatia.
- Faculty of Mechanical Engineering - FME, University of Ljubljana, Slovenia.

10. Collaborations with international scientific journals

- Since January 2017 I have been Editorial Board Member of the International Journal of Machine Tools and Manufacture (ISSN: 0890-6955, indexed on SCOPUS and ISI WEB). Since 2021 I am Assistant Editor.
- Since August 2017 I am Editorial Board Member and Handling Editor of the Mechanical Systems and Signal Processing (ISSN: 0888-3270, indexed on SCOPUS and ISI WEB).
- Active reviewer for many important scientific international journals related to the mechanical and manufacturing sector.

11. Awards

- 2012 – awarded with the "Prize for scientific merits aimed at young unstructured researchers at the University of Udine - 2011".

12. Affiliations to industry associations

- From 2006 to 2016 enrolled in the Order of Engineers of the Province of Udine at position number 2779 (section A), sectors a-b-c (civil and environmental - industrial - information).
- Since September 2006: member of A.I.Te.M. - Italian Manufacturing Technology Association; since September 2007 member of the Thematic Section "Machining Group".

13. Creation and participation in academic spin-offs

I contributed to the creation of the new academic spin-off which is also configured as an innovative start-up named DYNEXT SRL, of which I am a founding and active member as well as Technical Director. The new company started in February 2022.

14. Didactic activities performed at the University of Udine

- From 2008 I taught the following courses of the scientific sector "SSD ING-IND/16 – Manufacturing Systems and Technologies" at the University of Udine:
- TM1PN, Manufacturing Technology I, Bachelor degree in Mechanical Engineering, Pordenone;
- TM2PN, Manufacturing Technology II, Bachelor degree in Mechanical Engineering, Pordenone;
- TMPN, Manufacturing Technology, Bachelor degree in Mechanical Engineering, Pordenone;
- TIPM, Innovative Manufacturing Technologies, Master degree in Mechanical Engineering, Udine;
- TM2UD, Manufacturing Technology II, Bachelor degree in Mechanical Engineering, Udine;
- PHDL, special lectures for PhD students of PhD Course in Industrial and Information Engineering.

Table 1. Didactic activities at the University of Udine

Course	CFU	# Ore	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
TM1PN	5/6	60	R		/	/	/	/	/	/	/					
TM2PN	5/6	60		R	/	/	/	/	/	/	/					
TMPN	12	120			R	R	R	R	/	/	/					
TIPM/IMS	5/6	60/48						I	I			I	I	I	I	I
TM2UD	5/6	60/48								I	I	I	I	I	I	I
PHDL	/	4							I	I		I	I	I	I	I

I = institutional; P = paid; / = deactivated

15. Didactic activities and technical seminars held at other universities, public or private research institutes

- August 2007: seminar entitled “Modelling and Monitoring Dynamical Machining Processes” at the research institute Werkzeugmaschinenlabor - WZL der RWTH Aachen University, Germany.
- August 2008: seminar entitled "System Identification: Principles and Applications" at the research institute Werkzeugmaschinenlabor - WZL der RWTH Aachen University, Germany.
- May 2009: teacher of the didactic module "Industrial control systems" within the course "Technician for Advanced Industrial Automation - Mechanical Industry" (HTE 200 811 552 002), held at the Technical Institute of Udine Arturo Malignani.
- July 2009: "Technical Workshop" held at the Keymec Consortium; on that occasion the results of the project "New methodologies for machining difficult to cut materials” were presented.
- October 2009 - May 2010: teacher of the didactic module "The working cycle" and "Automation and CNC programming" of the course "Machine Tools Operator", ESF / 200918006018, organized by Keymec Consortium in collaboration with ENAIP .
- December 2010 - March 2011: teacher of the course "Programmer and operator of integrated production systems", cod. 201019013001, Keymec Consortium, in collaboration with the Kennedy Institute of Pordenone.
- February 2011: teacher of the course "Introduction to CAM programming" at the Keymec Consortium.
- 2010-2013: teacher of all four editions of the specialized course "Innovative cutting tools and technologies", held at the Keymec Consortium.
- 03/18/2014: participation as a speaker at the training day "Machining of Metallic Materials" organized by the Machining division of AITeM and Kistler at the University of Salento, in Lecce.
- Since 2016: I have often been a speaker during events, workshops and technical / dissemination seminars held at the Regional Laboratory for Advanced Mechatronics - LAMA FVG of the University of Udine, on topics such as 3D printing of metal powders and Industry 4.0.
- June 2018: teaching on "Innovative Additive Technologies" at Nuovo Pignone (FI) organized by Confindustria Firenze
- 2020: lectures financed by Fondimpresa and organized by ErgonGroup in favor of Gasparini, on the subject of sensorization and digitalization of machine tools.
- 2021: lectures financed by Fondimpresa and organized by ErgonGroup in favor of the Bertagni and Dal Santo companies, on the subject of digital transformation of machine tools.
- 2021: occasional lectures within the IFTS course "Product and Process Industrialization Techniques - Digital Manufactoring" organized by ENAIP of Pasian di Prato.

16. Organizational activities

- September 2004 - June 2005: member of the Organizing Committee of the VII conference "International Conference on Advanced Manufacturing Systems and Technology - AMST '05" held in June 2005 in Udine.
- September 2007 - June 2008: member of the Organizing Committee of the VIII conference "International Conference on Advanced Manufacturing Systems and Technology - AMST '08", held on 12-13 June 2008 in Udine.
- July 2009: organization of the "Technical Workshop" held at the Keymec Consortium on 10/07/2009 at the close of the first year of the research project "New methods for the processing of difficult to machine materials."
- September 2010 - June 2011: member of the Organizing Committee of the IX conference "International Conference on Advanced Manufacturing Systems and Technology - AMST'11", held in Mali Losinj, Croatia, in June 2011.
- 2014-2015: I have actively collaborated to the organization of many technical workshops within the framework of the trans-border research project between Italy and Slovenia entitled “Shartec”. Specifically, I gave my contribution to the organization of the following events:
    - "PLM and Virtual Manufacturing", 14.03.2014, Confindustria Udine;

- "Robotics and Automation", 05.09.2014, Confindustria Udine;
- "Energy Management for Industry", 10.21.2014, Nova Gorica;
- "Innovation of Cutting Tools and Coating Technologies", 28/11/2014, Innovation Friuli, Udine;
- "Factory of the Future - Industries 4.0", 27/02/2015, Innovation Friuli, Udine.

- 2014-2016: technical seminars organized within the Bachelor and Master degree of Mechanical Engineering at the University of Udine, which were also open to operators coming from local companies:
  - "Innovative techniques for simulation of manufacturing processes", in collaboration with Enginsoft, April 2014;
  - "Numerical simulation as a key for understanding bulk and sheet metal forming", in collaboration with Enginsoft, May 2015;
  - "Mould design & virtual simulation of sheet metal forming", in collaboration with ESI, June 2015;
  - "Advanced numerical techniques for modeling manufacturing processes", in collaboration with Almatec (MSC reseller), 2016-2018.
- From October 2015, I actively participated as a "project leader" for the creation of the "Laboratory for Advanced Mechatronics – LAMA FVG" located at the University of Udine.
- December 2020: active participation in the organization of the eManuthon event together with AITeM, Hackaton among young students and recent graduates (at a distance or connected by videoconference) on innovative issues in the manufacturing sector.
- 2021-22: organization and participation to the Hackaton "Manuthon 2022" that took place at the Politecnico of Torino, May 2022.

17. Institutional activities

- Since 2013, I participated several times as a member of the academic commission for the attribution of Bachelor and Master Degree in Mechanical Engineering.
- September 2013: chairman of the committee for the admission tests to Engineering courses, academic year 2013/14.
- May 2013: member of the electoral committee for the election of the National Council of University Students.
- May 2014: appointed by the Rector to represent the University at the meeting of the Technical Scientific Committee of the ITS Foundation, at the institute "A. Malignani ".
- May 2015: appointed by the Rector to represent the University during the shareholders' meeting of Keymec Consortium of San Vito al Tagliamento.
- June 2015: aggregate member of the commission for professional qualification of Engineers of the Province of Udine, for year 2015.
- October 2015: participation to the Scientific Technical Committee of the IFTS courses to be held at the headquarters ENAIP Tolmezzo from November 2015 as a representative of the University of Udine and as a delegate of Friuli Innovation.
- From September 2016: member of the Scientific Technical Committee of the "Laboratory for Advanced Mechatronics – LAMA FVG" located at the University of Udine.
- 2017-2019, then 2022-23: member of the Academic Board of the International PhD (double degree INPdGrenoble, INSA_Rennes) in Industrial and Information Engineering, Polytechnic Department of Engineering and Architecture of the University of Udine.

18. Knowledge of foreign languages

Language	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
German	A1	A2	A1	A2	A1

19. Knowledge of software and programming languages

- Excellent knowledge of the MathWorks Matlab programming language.
- Good knowledge 3D CAD software for modeling mechanical components (Autodesk Autocad, SolidEdge, SolidWorks).
- Good knowledge of CAM software Delcam Featurecam and OpenMind HyperMILL.
- Good knowledge of Materialize Magics CAM software for programming SLM 3D printing machines; good knowledge of Concept Laser M2 Cusing SLM machine interface.
- Excellent knowledge of ISO standard language for CNC programming; excellent knowledge of OKUMA MULTUS and HAAS VF2-TR CNC languages and interfaces.

- Good knowledge of Solidworks Simulation for structural linear FEM simulation of metallic structures; basics of Marc-Mentat and Patran-Nastran.
- Good knowledge of MSC Simufact 13 for modeling and simulation of bulk metal forming operations.
- Basics of C ++.
- Latex for scientific editing.

20. Participation to conferences and to national and international workshops

20.1 International conferences and workshops

- 8th CIRP International Conference on High Performance Cutting – HPC CIRP 2018, University of Technology and Economics of Budapest, Budapest, Hungary;
- 9th European Nonlinear Dynamics Conference, ENOC 2017, University of Technology and Economics of Budapest, Budapest, Hungary;
- 61th CIRP General Assembly, August 2011, Budapest, Hungary (solo come uditore);
- 9th International Conference on Advanced Manufacturing Systems and Technology - AMST'11, June 2011, Mali Losinj, Croatia;
- 60th CIRP General Assembly, August 2010, Pisa, Italy;
- 8th International Conference on Advanced Manufacturing Systems and Technology - AMST'08, 12-13 June 2008, Udine, Italy;
- 39th CIRP International Seminar on Manufacturing Systems: The Morphology of Innovative Manufacturing Systems, 7-9 June 2006, Ljubljana, Slovenia.
- 7th International Conference on Advanced Manufacturing Systems and Technology - AMST'05, 9-10 June 2005, Udine, Italy.

20.2 Conferences and national workshops

Partecipation to the national congresses of the Italian Association of Manufacturing Technology, in Italy:

- 15th Congress, AITeM 2021, January 2022, Milano (online).
- 14th Congress, AITeM 2019, September 2019, Padova.
- 13th Congress, AITeM 2017, September 2017, Pisa.
- 11th Congress, AITeM 2017, September 2013, San Benedetto del Tronto.
- 10th Congress, AITeM 2011, September 2011, Napoli.
- 9th Congress, AITeM 2009, September 2009, Torino.
- 8th Congress, AITeM 2007, September 2007, Montecatini Terme.

21. List of publications

21.1 Publications on international, indexed scientific journals

[1] F. Klocke, G. Wirtz, D. Veselovac, G. Totis, *Entwicklung eines mehrschneidigen Messerstirnfräskopfes mit Einzelschneidenkraftmessung*. ZWF, Vol.11, 2008, pp. 762-765, ISSN: 0947-0085.

[2] E. Kuljanic, M. Sortino, G. Totis, *Multisensor Approaches for Chatter Detection in Milling*, Journal of Sound and Vibration, Vol. 312, Issue 4-5, 2008, pp. 672-693, DOI: 10.1016/j.jsv.2007.11.006, ISSN: 0022-460X.

[3] G. Totis, *RCPM - a New Method for Robust Chatter Prediction in Milling*. International Journal of Machine Tools & Manufacture, Vol. 49, 2009, pp. 273-284, ISSN: 0890-6955.

[4] E. Kuljanic, G. Totis, M. Sortino, *Development of an Intelligent Multisensor Chatter Detection in Milling*, Mechanical Systems and Signal Processing, Vol.23, Issue 5, July 2009, pp. 1704-1718, DOI: 10.1016/j.ymssp.2009.01.003, ISSN: 0888-3270.

[5] G. Totis, G. Wirtz, M. Sortino, D. Veselovac, E. Kuljanic, F. Klocke, *Development of a Dynamometer for Measuring Individual Cutting Edge Forces in Face Milling*, Mechanical Systems and Signal Processing, Vol. 24, Issue 6, August 2010, pp. 1844-1857, DOI: 10.1016/j.ymssp.2010.02.010

[6] G. Totis, M. Sortino, *Development of a modular dynamometer for triaxial cutting force measurement in turning*, International Journal of Machine Tools and Manufacture, Vol. 51, Issue 1, January 2011, pp. 34-42, DOI: 10.1016/j.ijmachtools.2010.10.001, ISSN: 0890-6955.

[7] F. Klocke, O. Dambon, M. Herben, D. Veselovac, O. Adams, E. Kuljanic, M. Sortino, G. Totis, *Chuck System for Integrated IR-Based Temperature Measurement in Rotational Grinding of Sapphire Wafers*, Euspen 2012, Stockholm, 2012, pp. 332-335.

[8] M. Sortino, G. Totis, F. Prosperi, *Development of a practical model for selection of stable tooling system configurations in internal turning*, International Journal of Machine Tools and Manufacture, Vol. 61, Issue 1, 2012, pp. 58-70, DOI: 10.1016/j.ijmachtools.2012.05.010, ISSN:0890-6955.

[9] M. Sortino, G. Totis, F. Prosperi, *Modelling the dynamic properties of conventional and high-damping boring bars*, Mechanical Systems and Signal Processing, Vol. 34, Issue 1-2, 2013, pp. 340-352, DOI: 10.1016/j.ymssp.2012.05.016, ISSN: 0888-3270.

[10] M. Sortino, G. Totis, F. Prosperi, *Dry turning of sintered molybdenum*, Journal of Materials Processing Technology, Journal of Materials Processing Technology, Vol. 213/7, 2013, pp. 1179-1190, DOI: 10.1016/j.jmatprotec.2013.01.017

[11] M. Sortino, S. Belfio, B. Motyl, G. Totis, *Compensation of geometrical errors of CAM/CNC machined parts by means of 3D workpiece model adaptation*, Computer Aided Design (ISSN:0010-4485), Vol. 48, 2014, pp. 28 – 38.

[12] G. Totis, O. Adams, M. Sortino, D. Veselovac, F. Klocke, *Development of an innovative plate dynamometer for advanced milling and drilling applications*, Measurement (ISSN:0263-2241), Vol. 49, 2014, pp. 164 – 181.

[13] M. Sortino, B. Motyl, G. Totis, *Preventive evaluation of mould production cost in aluminium casting*, International Journal of Advanced Manufacturing Technology (ISSN:0268-3768) Vol. 70, 2014, pp. 285 – 295, DOI: 10.1007/s00170-013-5273-6

[14] G. Totis, M. Sortino, *Robust Analysis of Stability in Internal Turning*, Procedia Engineering (ISSN:1877-7058), Vol. 69, 2014, pp. 1306 – 1315.

[15] M. Sortino, G. Totis, E. Kuljanic, *Comparison of Injection Molding Technologies for the Production of Micro-Optical Devices*, Procedia Engineering, Vol. 69, 2014, pp. 1296 – 1305.

[16] G. Totis, P. Albertelli, M. Sortino, M. Monno, *Efficient evaluation of process stability in milling with Spindle Speed Variation by using the Chebyshev Collocation Method*, Journal of Sound and Vibration (ISSN:0022-460X), Vol. 333, 2014, pp. 646 – 668.

[17] M. Sortino, S. Belfio, G. Totis, E. Kuljanic, G. Fadelli, *Innovative Tool Coatings for Increasing Tool Life in Milling Nickel-Coated Nickel-Silver Alloy*, Procedia Engineering, Vol.100, 2015, pp. 946–952, DOI: 10.1016/j.proeng.2015.01.453.

[18] M. Sortino, S. Belfio, G. Totis, *An Innovative Approach for Automatic Generation, Verification and Optimization of Complex Part Programs in Turning*, in press on Journal of Manufacturing Systems, still in press, 2014, DOI: 10.1016/j.jmsy.2014.03.002.

[19] G. Totis, M. Sortino, S. Belfio, *Wavelet-like analysis in the frequency-damping domain for modal parameters identification*, Annals of DAAAM and Proceedings of the 26th International DAAAM Symposium "Intelligent Manufacturing & Automation" 21-24th October 2015, Zadar, Croatia, EU, Volume 26, No.1., 2015, Pages 580-588, Editor B. Katalinic, Published by DAAAM International, ISBN 978-3-902734-07-5, ISSN 1726-9679, Vienna, Austria

[20] (*) M. Sortino, G. Totis, *Prediction and Control of Vibrations and Chatter in Machining*, chapter of the book Mechatronics: principles, technologies and applications / editor, Eugenio Brusa (Series: Mechanical engineering theory and applications) ISBN 978-1-63482-801-7, Nova Science Publishers, Inc.; New York, 2015.

[21] S. Seriani, A. Cortellessa, S. Belfio, M. Sortino, G. Totis, P. Gallina, *Automatic path-planning algorithm for realistic decorative robotic painting*, Automation in Construction, Vol.56, 2015, pp. 67–75, DOI: 10.1016/j.autcon.2015.04.016.

[22] M. Sortino, S. Belfio, G. Totis, L. Di Gaspero, M. Nali, *An investigation on swarm intelligence methods for the optimization of complex part programs in CNC turning*, International Journal of Advanced Manufacturing Technology, Volume 80, Issue 1-4, 2 April 2015, Pages 657-672.

[23] G. Totis, P. Albertelli, M. Torta, M. Sortino, M. Monno, *Upgraded stability analysis of milling operations by means of advanced modeling of tooling system bending*, International Journal of Machine Tools & Manufacture 113 (2017) 19–34, http://dx.doi.org/10.1016/j.ijmachtools.2016.11.005

[24] G. Totis, *Breakthrough of regenerative chatter modeling in milling by including unexpected effects arising from tooling system deflection*, International Journal of Advanced Manufacturing Technology, vol. 89, 2017, p. 2515-2534, DOI 10.1007/s00170-016-9855-y.

[25] G. Totis, T. Insperger, G. Stepan, M. Sortino, *Stability analysis in milling by taking into account the influence of forced vibrations on the actual tool-workpiece engagement conditions*, 8th CIRP Conference on High Performance Cutting (HPC 2018), Procedia CIRP, Volume 77, 2018, Pages 453-456.

[26] (*) M. Sortino, G. Totis, F. Scalzo, E. Vaglio, *Preliminary investigation of static and dynamic properties of SLM lattice structures for robotic applications*, IFToMM Symposium on Mechanism Design for Robotics, MEDER 2018, Mechanisms and Machine Science, Vol. 66, 2019, Pages 260-267.

[27] Totis, G., Insperger, T., Sortino, M., Stépán, G., *Symmetry breaking in milling dynamics*, International Journal of Machine Tools and Manufacture, 139, (2019), 37-59. DOI: 10.1016/j.ijmachtools.2019.01.002

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[29] A. Lanzutti, E. Marin, K. Tamura, T. Morita, M. Magnan, E. Vaglio, F. Andreatta, M. Sortino, G. Totis, L. Fedrizzi, *High temperature study of the evolution of the tribolayer in additively manufactured AISI 316L steel*, Additive Manufacturing, Volume 34, (2020), 101258, DOI: 10.1016/j.addma.2020.101258

[30] Totis, G.; Dombovari, Z.; Sortino, M., *Upgraded Kalman Filtering of Cutting Forces in Milling*. Sensors, 20, (2020), 5397.

[31] G. Totis, M. Sortino, *Polynomial Chaos-Kriging approaches for an efficient probabilistic chatter prediction in milling*, International Journal of Machine Tools and Manufacture, Volume 157, (2020), 103610, DOI: 10.1016/j.ijmachtools.2020.103610.

[32] Vaglio, E., De Monte, T., Lanzutti, A., Totis, G., Sortino, M., Fedrizzi, L., *Single tracks data obtained by selective laser melting of Ti6Al4V with a small laser spot diameter*, (2020) Data in Brief, 33, art. no. 106443, DOI: 10.1016/j.dib.2020.106443

[33] Scalzo, F.; Totis, G.; Vaglio, E.; Sortino, M., *Passive Chatter Suppression of Thin-Walled Parts by Means of High-Damping Lattice Structures Obtained from Selective Laser Melting*. J. Manuf. Mater. Process. 4, (2020), 117.

[34] Abdalla, H.M.A., Casagrande, D., De Bona, F., De Monte, T., Sortino, M., Totis, G., *An optimized pressure vessel obtained by metal additive manufacturing: Preliminary results*, (2021) International Journal of Pressure Vessels and Piping, 192, art. no. 104434, DOI: 10.1016/j.ijpvp.2021.104434

[35] Scalzo, F., Totis, G., Vaglio, E., Sortino, M., *Experimental study on the high-damping properties of metallic lattice structures obtained from SLM*, (2021) Precision Engineering, 71, pp. 63-77, DOI: 10.1016/j.precisioneng.2021.02.010

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Udine, 18/08/2022

Giovanni TOTIS

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