University Academic Curriculum Vitae

Personal information

Name MANUELA DE MADDIS
Place and date of birth: [redacted] - 18/10/1974
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Education

2001 : Master degree in Management Engineering at the Università della Calabria.
2004: Ph.D, Research Doctorate in Industrial Production Systems Engineering at the department of Management and Production Engineering at the Politecnico di Torino.

Present appointment

Since 2005 Assistant Professor in Manufacturing Technologies and Systems (SSD Ing-IND/16).
Affiliation: Department of Management and Production Engineering (DIGEP) – Politecnico di Torino.

Experience in academic teaching

Teacher at the Politecnico di Torino since 2003. Find below the most recent courses:

- Since A.A. 2012/2013 Lectures of "Manufacturing Processes" – Bachelor of Mechanical Engineering- Politecnico di Torino. 8 Credits – Corse Language English
- Since A.A. 2010/2011 Lecturer of "Innovation of product/Process innovation" - Master of Industrial Production And Technological Innovation Engineering- Politecnico di Torino. 5 Credits- Corse Language Italiano.
- Since A.A. 2012/2013 holds lectures in Fundamentals of graphical communication and mechanical production- Bachelor of Industrial Production Engineering- Politecnico di Torino. Corse Language Italiano.
- Since A.A. 2015 holds lectures in Manufacturing and Assembly technologies - Bachelor of Automotive Engineering- Politecnico di Torino. Corse Language Inglese.
- A.A. 2018 Holds lectures in "Structural joints : design, processes and manufacturing- Doctorate Research in Mechanical Engineering – Politecnico di Torino

Research areas

- Dimensional and geometric product design and verification: application of the GPS system (Geometrical Product Specifications and Verification) in the design activity and in the product verification phase.
- Analysis of the performance of handling systems for automatic warehouses using mathematical models and discrete event simulation models.
-Optimization and monitoring of mechanical processing processes on traditional and innovative materials. (Cutting, welding, forming processes).

Research projects

CRF-Politecnico di Torino: Infrared thermography for assessing fusion joint quality.
Eaton_Politecnico di Torino: Hollow Head & Steam Valves project.
Eurofork s.r.l.- Politecnico di Torino: „Analisi delle prestazioni dei Sistemi di Movimentazione per magazzini Automatici (MOMA)"

List of Publications

1. Chiabert, P., **De Maddis, M**., Genta, G., Ruffa, S., Yusupov, J. Evaluation of roundness tolerance zone using measurements performed on manufactured parts: A probabilistic approach (2018) Precision Engineering, 52, pp. 434-439.

DOI:10.1016/j.precisioneng.2018.02.001, ISSN: 01416359.
2. D'Antonio, G., **De Maddis, M.**, Bedolla, J.S., Chiabert, P., Lombardi, F. Analytical models for the evaluation of deep-lane autonomous vehicle storage and retrieval system performance.(2018) International Journal of Advanced Manufacturing Technology, 94 (5-8), pp. 1811-1824. DOI: 10.1007/s00170-017-0313-2, ISSN: 02683768.
3. Chiabert, P., **De Maddis, M**., Ruffa, S., Yusupov, J. Probabilistic method in form error evaluation: comparison of different approaches (2017) International Journal of Advanced Manufacturing Technology, 92 (1-4), pp. 447-458.DOI: 10.1007/s00170-017-0144-1, ISSN: 02683768.
4. Russo Spena, P., **De Maddis, M**., Lombardi, F. Evaluation of Hot Tearing in Large Mottled Iron Rolls by Microstructural and FEM Casting Analyses (2017) Steel Research International, 88 (8),DOI: 10.1002/srin.201600391, ISSN: 16113683.
5. Russo Spena, P., Cortese, L., **De Maddis, M**., Lombardi, F. Effects of Process Parameters on Spot Welding of TRIP and Quenching and Partitioning Steels (2016) Steel Research International, 87 (12), DOI: 10.1002/srin.201600007, ISSN: 16113683.
6. Russo Spena, P., **De Maddis, M**., D'Antonio, G., Lombardi, F. Weldability and monitoring of resistance spot welding of Q&P and TRIP steels (2016) Metals, 6 (11), DOI: 10.3390/met6110270, ISSN: 20754701.
7. Barbato, G., Chiabert, P., D'Antonio, G., **De Maddis, M**., Lombardi, F., Ruffa, S. Method for automatic alignment recovery of a spur gear (2016) International Journal of Production Research, 54 (15), pp. 4475-4486.DOI: 10.1080/00207543.2015.1064180, ISSN: 00207543.
8. Russo Spena, P., **De Maddis, M**., Lombardi, F., Rossini, M. Dissimilar resistance spot welding of Q&P and TWIP steel sheets (2016) Materials and Manufacturing Processes, 31 (3), pp. 291-299.DOI: 10.1080/10426914.2015.1048476, ISSN: 10426914.
9. Russo Spena, P., **De Maddis, M**., Lombardi, F. Cut quality assessment of CO2 laser cutting of twinning-induced plasticity steel sheets (2015) Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 229 (1), pp. 3-19. DOI: 10.1177/0954405414525382, ISSN: 09544054.
10. Russo Spena, P., **De Maddis, M**., Lombardi, F. Mechanical Strength and Fracture of Resistance Spot Welded Advanced High Strength Steels DOI: 10.1016/j.proeng.2015.06.262, ISSN: 18777058.
11. Russo Spena, P., **De Maddis, M**., Lombardi, F., Rossini, M. Investigation on Resistance Spot Welding of TWIP Steel Sheets. (2015) Steel Research International, 86 (12), pp. 1480-1489. DOI: 10.1002/srin.201400336, ISSN: 16113683.
12. Russo Spena, P., **De Maddis, M**., Lombardi, F., D'Aiuto, F. Resistance spot welding of advanced high strength TWIP steels. (2013) Applied Mechanics and Materials, 423-426, pp. 876-880. ISBN: 9783037858882, ISSN: 1660-9336, doi: 10.4028/www.scientific.net/AMM.423-426. DOI: 10.4028/www.scientific.net/AMM.423-426.876, ISSN: 16609336.
13. **De Maddis, M**., Gandini, M.. Variability of the Manufacturing Process in the GPS Framework: A Case Study. (2013) Product Lifecycle Management: Geometric Variations, pp. 371-384. DOI: 10.1002/9781118557921.ch21, ISBN: 9781848212763.
14. Ricci, F., Bedolla, J.S., Gomez, J.M., Ruffa, S., **De Maddis, M**., Chiabert, P.A case study on the integration of GPS concepts in a PLM based industrial context. (2013) IFIP Advances in Information and Communication Technology, 409, pp. 336-345.ISSN: 18684238
15. Russo Spena, P. **De Maddis, M**., Lombardi, F. Influence of microstructure on crack susceptibility of large chilled iron mill rolls. (2012) ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE), 3 (PARTS A, B, AND C), pp. 761-772. DOI: 10.1115/IMECE2012-89436, ISBN: 9780791845196.
16. Canuto, E., **De Maddis, M**. Manufacturing algebra. Part II: Aggregation, control and simulation (2012) IEEE International Conference on Mechatronics and Automation, ICMA 2012, art. no. 6284367, pp. 1550-1556.DOI: 10.1109/ICMA.2012.6284367, ISBN: 9781467312776.

Canuto, E., **De Maddis, M**., Ruffa, S. Manufacturing algebra. Part I: Modeling principles and case study. (2012) IEEE International Conference on Mechatronics and Automation, ICMA 2012, art. no. 6284365, pp. 1536-1543.DOI: 10.1109/ICMA.2012.6284365, ISBN: 9781467312776.

18. Chiabert, P., **De Maddis, M.** Statistical modelling of geometrical invariant sampled sets. (2007) Models for Computer Aided Tolerancing in Design and Manufacturing -

Selected Conference Papers from the 9th CIRP International Seminar on Computer-Aided Tolerancing, CAT 2005, pp. 169-178., ISBN: 1402054378; 9781402054372.

Language competence	Italian (mother tongue) English (B1 level, IELTS certification)

Date- 26-9-2018

Signature

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