

CURRICULUM VITAE

Personal information

Name: Manuela De Maddis

Date of birth: 18 /10/1974

Nationality: Italian

Affiliation and current position

Politecnico di Torino

Department of Management and Production Engineering

Assistant Professor of Manufacturing Technologies and Systems (SSD Ing-Ind/16)

Manuela.demaddis@polito.it

<http://www.digep.polito.it/>

<http://www.j-tech.polito.it/>

Education

2001: Master degree in Management Engineering at the Università della Calabria, Cosenza, Italy.

2004: Ph.D., Research Doctorate in Production Systems Engineering (XVII cycle) at the Department of Management and Production Engineering at the Politecnico di Torino.

Didactic activity

Since 2002, Prof. Manuea De Maddis has hold lectures in the field of Manufacturing and Production Engineering at the Politecnico di Torino – an average of 4 courses per year ranging from product design, manufacturing and verification as well as logistics and production planning and control.

Below the most recent courses:

- Since 2012/2013 Lectures of “Manufacturing Processes” – Bachelor of Mechanical Engineering- Politecnico di Torino. 8 Credits – Corse Language English
- Since 2010/2011 Lecturer of “Innovation of product/ Process innovation” - Master of Industrial Production and Technological Innovation Engineering- Politecnico di Torino. 5 Credits- Corse Language Italian.
- 2019/2020 lectures in “Industrial welding processes”- Doctorate Research in Management, Production And Design - – Politecnico di Torino

Research areas

At the beginning the research has aimed to investigate the industrial procedures used to specify and verify geometric tolerances and to highlight the improvements that can be achieved with mathematical concepts introduced in accordance with ISO Geometric Product Specifications and Verification Standards (GPS).

At the same time, the research dealt with the programming and control of production and in particular with the analysis of the performance of production lines and handling systems using mathematical models and discrete event simulation models.

The applied research has been involved in the optimization and monitoring of mechanical production processes such as cutting, welding, forming and casting on traditional and innovative materials.

In recent years research activities have also focused on the monitoring of welding processes and the application of thermography not only for the monitoring of cutting and welding processes but also as an innovative method for the non-destructive control of welded joints in both automotive and railway applications.

Since 2020, being part of the J-Tech (Advanced Joining Technologies at Polytechnic of Turin) staff, research activities increased in the area material joining, joining technologies and characterization techniques for industry.

Research Projects

- Collaboration in research project with *CRF (centro ricerche Fiat)*, coordinator Prof. Lombardi F. ,“Infrared thermography for assessing fusion joint quality” -15/03/2018-14/06/2020
- INFRA-P: DYNLAB4JMAT, coordinator Rossetto Massimo “Laboratorio per l'Integrità Strutturale di Giunzioni e Materiali Sottoposti a Carichi Dinamici finanziato”– INFRA-P - 10/04/2018-09/10/2020
- HOME – Coordinator Chiabert P. “Hierarchical Open Manufacturing Europe” FESR - 15/03/2018-14/06/2020
- MOMA - STUDI DI FATTIBILITA' - POLO MESAP – Coordinator Lombardi F.- “Analisi delle prestazioni dei Sistemi di Movimentazione per magazzini Automatici”. Supported by the Regione Piemonte under the research feasibility study- 01/07/2015-31/12/2015. *Eurofork S.p.A.*
- MANU-M5- Coordinator Lombardi F. - Sistemi Avanzati di Produzione - “Study, design, development and realization of a reconfigurable production system for aeronautical gears, holistic of methods, fixtures, tools, coolant, measurement and human interaction”. *AVIO S.p.A-IMT Favretto*.

The research results has been protected by italian patent 0001422076 “METHOD FOR AUTOMATIC ALIGNMENT OF A PIECE TO BE MACHINED, IN PARTICULAR A GEAR WHEEL, AND CORRISPONDING MACHINE FOR AUTOMATIC MACHINING”. Supported by Regione Piemonte - 19/06/2009-31/12/2012

- IMFOMET - Coordinator Prof. Lombardi F. “Information technology for industrial engineering”, MIUR Torino Wireless.11/06/2009-12/07/2012

- TEMPUS-2008-IT-JPCR, TEMPUS IV Program, Coordinator Prof. Lombardi F.- “Master Studies and Continuing Education Network for Product Lifecycle Management with Sustainable Development”, 144959- financed by the European Commission -15/01/2009-14/07/2012
- GREAT 2020 – Ecoprolab 3- GReen Engine for Air Transport in 2020, - Coordinator Prof. LOMBARDI FRANCO. ” Specifiche geometriche di prodotto | Verifiche dimensionali e geometriche “.Project, financed by EC, Great 2020 Ecoprolab3 - 01/01/2009 -31/05/2012 _ AVIO S.p.A.
- Collaboration in research project with CRF- Cordinator Prof. Chiabert P. “Zero defects” Manutenzione predittiva | Monitoraggio online-1/10/11 -30/11/13
- Collaboration in research project with CRF- Prof. Chiabert P. “PLM@POLITO” Gestione ciclo di vita del prodotto -1/10/11 -30/11/13
- Collaboration in research project with Eaton - Coordinator Prof. LOMBARDI FRANCO: Hollow Head & Steam Valves project.

Recent five years scientific paper on Scopus:

2020 De Maddis, M.; Spena, P. R. (2019) Plastic flow behavior of twinning induced plasticity steel from low to warm temperatures, In: JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY, ISSN: 2238-7854

2018 Chiabert, P; De Maddis, M; Genta, G.; Ruffa, S; Yusupov, J (2018) Evaluation of roundness tolerance zone using measurements performed on manufactured parts: A probabilistic approach, In: PRECISION ENGINEERING, 434-439, ISSN: 0141-6359

2018 D’Antonio G.; De Maddis, M.; De; Bedolla, J. S.; Chiabert, P.; Lombardi, F. (2018) Analytical models for the evaluation of deep-lane autonomous vehicle storage and retrieval system performance, In: INTERNATIONAL JOURNAL, ADVANCED MANUFACTURING TECHNOLOGY, 1811-1824, ISSN: 0268-3768

2017 Chiabert, P; De Maddis, M.; Ruffa, S.; Yusupov, J. (2017) Probabilistic method in form error evaluation: comparison of different approaches, In: INTERNATIONAL JOURNAL, ADVANCED MANUFACTURING TECHNOLOGY, 447-458, ISSN: 0268-3768

2017 Russo Spena, Pa.; De Maddis, M.; Lombardi, F. (2017) Evaluation of Hot Tearing in Large Mottled Iron Rolls by Microstructural and FEM Casting Analyses, In: STEEL RESEARCH INTERNATIONAL, 1600391-null, ISSN: 1611-3683

2016 Russo Spena, P.; De Maddis ,M.; Lombardi, F.; Rossini, M. (2016) Dissimilar Resistance Spot Welding of Q&P and TWIP Steel Sheets, In: MATERIALS AND MANUFACTURING PROCESSES, 291-299, ISSN: 1042-6914

2016 Barbato, G.; Chiabert, P.; D’Antonio, G.; De Maddis, M.; Lombardi, F.; Ruffa, S. (2016) Method for automatic alignment recovery of a spur gear, In: INTERNATIONAL JOURNAL OF PRODUCTION RESEARCH, 4475-4486, ISSN: 0020-7543

2016 Russo Spena, P.;De Maddis, M.; D’Antonio, G.; Lombardi, F. (2016) Weldability and monitoring of resistance spot welding of Q&P and TRIP steels, In: METALS, 1-15, ISSN: 2075-4701

2016 Russo Spena, P.; Cortese, L.; De Maddis, M.; Lombardi, F. (2016) Effects of Process Parameters on Spot Welding of TRIP and Quenching and Partitioning Steels, In: STEEL RESEARCH INTERNATIONAL, pag. 1592-1600, ISSN: 1611-3683

2015 Russo Spena, P.; De Maddis, M.; Lombardi, F. Mechanical Strength and Fracture of Resistance Spot Welded Advanced High Strength Steels, In: PROCDIA ENGINEERING, pag. 450-456, ISSN: 1877-7058

2015 Russo Spena, P.; De Maddis, M.; Lombardi, F. Cut quality assessment of CO2 laser cutting of twinning-induced plasticity steel sheets, In: PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS. PART B, JOURNAL OF ENGINEERING MANUFACTURE, pag. 3-19, ISSN: 0954-4054

2015 Russo Spena, P.; De Maddis, M.; Lombardi, F.; Rossini, M. (2015) Investigation on Resistance Spot Welding of TWIP Steel Sheets, In: STEEL RESEARCH INTERNATIONAL, pag. 1480-1489, ISSN: 1611-3683

Torino, 06.07.2021

Signature

A handwritten signature in dark ink, appearing to read "Leonardo A. Faldut". The signature is written in a cursive style with a large initial 'L'.