



**MARIANGELA QUARTO, Ph.D**

*University of Bergamo, via Pasubio 7/b – 24044 Dalmine (BG) – ITALY*

*[mariangela.quarto@unibg.it](mailto:mariangela.quarto@unibg.it)*

*ORCID: <https://orcid.org/0000-0002-5048-2314>*

Mariangela Quarto is Assistant Professor at the Department of Management, Information and Production Engineering, University of Bergamo, Italy (SSD ING-IND/16). She is also a member of AlTeM, the Italian Association of Manufacturing (since 2015).

Her research interests lie at the Analysis of micromachining processes with micro-EDM (Electro Discharge Machining) technology on metallic and ceramic materials, optimization (in stochastic environment) of cutting operations. Mariangela's teaching is about quality improvement in healthcare systems.

**PERSONAL INFORMATION**

Born on June 17<sup>th</sup>, 1990 in Alzano Lombardo (Italy).

Residence: Nembro, Bergamo (Italy)

**EDUCATION**

***University of Pavia***

Ph.D., Economic and Management of Technology, May 2019.

*"μEDM sustainability: economical optimization and machinability of advanced materials"*

Supervisor: Prof. G. Maccarini

***University of Bergamo***

Master Degree in Management Engineering, 2014.

*"Caratterizzazione geometrica di micro-fori ottenuti mediante EDM"*

Relatore: Prof. G. D'Urso

***University of Bergamo***

Bachelor in Management Engineering, 2012.

*"Nuove direzioni nel settore edile: verso il Green Building e le case autonome"*

Relatore: Prof. T. Minola

**ADDITIONAL EDUCATION**

Base Course of FlexSim, 2018.

Micro Mechanical Systems Design and Manufacture PhD summer school – Technical University of Denmark, Lyngby (Denmark). June/July 2018.

PhD School di primo livello AITeM - Università della Calabria, Arcavacata di Rende, Cosenza (Italy). September 2016.

IPSS Doctoral Spring School - Operations Management methods and Technologies for PSS Delivery - Università degli Studi di Brescia (Italy). June 2016.

## **ACCADEMIC APPOINTMENTS**

October 2019 – Present

Assistant Professor at the University of Bergamo

Department of Management, Information and Production Engineering (SSD ING-IND/16)

October 2018 – September 2019

Research Fellow at the University of Bergamo

Department of Management, Information and Production Engineering (SSD ING-IND/16)

May 2015 – September 2015

Research Fellow at the University of Bergamo

Department of Management, Information and Production Engineering (SSD ING-IND/16)

“Smart Solutions for Cyber-Physical Production System - SMART4CPPS”

## **VISITING RESEARCH PERIOD**

October 2017 – March 2018

Technical University of Denmark

Department of Mechanical Engineering, Section of Manufacturing Engineering

## **PUBLICATIONS**

### International Journal

G. D’Urso, C. Giardini, S. Lorenzi, M. Quarto, D. Sciti, L. Silvestroni - Micro-edm milling of zirconium carbide ceramics - Precision Engineering. (UNDER REVIEW).

M. Quarto, G. Bissacco, G. D’Urso - Machinability and energy efficiency in micro EDM milling of Zirconium Boride reinforced with silicon carbide fibres - Journal of Materials Processing Technology. (UNDER REVIEW).

G. D’Urso, M. Quarto, G. Pellegrini, C. Ravasio - Towards the prediction of micro-EDM drilling performance on WC varying the hole depth - Manufacturing Technology, 18(6), pp. 1041-1047 (2018).

G. D’Urso, M. Quarto, C. Giardini - Characterization of surfaces obtained by micro-EDM milling on steel and ceramic components - International Journal of Advanced Manufacturing Technology, 97(5-8), pp. 2077-2085 (2018).

G. D’Urso, C. Giardini, G. Maccarini, M. Quarto - Cost index model for the process performance optimization of micro-EDM drilling on tungsten carbide - Micromachines 8(8), 251 (2017).

G. D'Urso, M. Quarto, C. Ravasio – A model to predict manufacturing cost for micro-EDM drilling – International Journal of Advanced Manufacturing Technology, 91(5-8); pp. 2843-2853 (2017).

G. D'Urso, G. Maccarini, M. Quarto, C. Ravasio, M. Caldara – Micro-electro discharge machining drilling of stainless steel with copper electrode: The influence of process parameters and electrode size – Advances in Mechanical Engineering, 8(12), pp. 1-16 (2016)

G. D'Urso, G. Maccarini, M. Quarto, C. Ravasio – Investigation on power discharge in micro-EDM stainless steel drilling using different electrodes – Journal of Mechanical Science and Technology, 29(10), pp. 4341-4349 (2015).

### Conference

M. Quarto, G. Bissacco, G. D'Urso –  $\mu$ EDM machining of ZrB<sub>2</sub>-based ceramics doped with SiC fibres or whiskers – AITeM, September 2019, Padova (Italia).

M. Quarto, G. D'Urso, L. Silvestroni, D. Sciti, G. Bissacco – Study on zirconium boride machined by micro-edm – Workshop for young ceramists, November 2018, Bologna (Italia).

G. D'Urso, G. Maccarini, M. Quarto, C. Ravasio – Effects of Electrode and Workpiece Materials on the Sustainability of Micro-EDM Drilling Process – WCMNM 2018, September 2018, Portorož (Slovenia).

M. Quarto, G. Bissacco, G. D'Urso, C. Giardini – Study on Zirconium Boride machined by micro-EDM – WCMNM 2018, September 2018, Portorož (Slovenia).

G. D'Urso, C. Giardini, G. Maccarini, M. Quarto, C. Ravasio – Analysis of the surface quality of steel and ceramic materials machined by micro-EDM – euspen's 18th International Conference & Exhibition, June 2018, Venezia (Italia).

G. D'Urso, C. Giardini, G. Maccarini, M. Quarto\*, C. Ravasio – Effects of process parameters on surface characteristics in micro-EDM performed on ceramic materials – AITeM, September 2017, Pisa (Italia).

G. Allegri, G. D'Urso, C. Giardini, G. Maccarini, M. Quarto, C. Ravasio – Effects of process parameters and electrode path on surface roughness in micro-EDM milling – WCMNM, March 2017, Kaohsiung (Taiwan).

G. D'Urso, G. Maccarini, M. Quarto, C. Ravasio – Product cost modelling for micro-EDM drilling – 4M/IWMF, September 2016, Lyngby (Danmark).

G. D'Urso, C. Ravasio, M. Quarto - Material-Technology Index to evaluate micro-EDM drilling process – ICOMM 2016, March 2016, Irvine (California, US).

## **TEACHING**

2019 – present: Quality Improvement in Healthcare (6 CFU). University of Bergamo Department of Management Information and Production Engineering.

2016 – 2019: Tutor of Bachelor course “Tecnologia Meccanica” (6 CFU). University of Bergamo Department of Management Information and Production Engineering.

2015 – 2018: Tutor of Master degree course “Studi di Fabbricazione” (6 CFU) University of Bergamo Department of Management Information and Production Engineering

2015 – 2019: Tutor of Master degree course “Sistemi Integrati di produzione” (6 CFU) University of Bergamo Department of Management Information and Production Engineering

2015 – 2018: Tutor of Master degree course “Tecnologia di produzione innovative” (6 CFU) University of Bergamo Department of Management Information and Production Engineering

2016 – 2019: “Sistemi e tecnologie di produzione industriale” Fondazione Istituto Tecnico Superiore per le Nuove Tecnologie per il Made in Italy. – JobsAccademy, Bergamo, Italia

2016 – 2017: “Nuove tecnologie al servizio del design sostenibile” Centro di Formazione Professionale, Scuola d'arte applicata Andrea Fantoni. Bergamo, Italia.

2016 – 2017: “Tecnologie Innovative” Fondazione Istituto Tecnico Superiore Lombardo per le Nuove tecnologie Meccaniche e Meccatroniche Sesto San Giovanni, Milano, Italia.

Dalmine, 17/10/2019

Mariangela Quarto

