CURRICULUM VITAE



PERSONAL INFORMATION

Name | ELENA BASSOLI

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Nationality Italiana

Date of birth 02 -05- 1974

WORK EXPERIENCE

Dates Since January 2020

Role Full Professor in Technology and Manufacturing Systems at the University of Modena

and Reggio Emilia, Department of Engineering "Enzo Ferrari".

Main activities In charge of the following courses: Manufacturing Technology (Degree in Mechanical

Engineering), Computer Aided Manufacturing (Master Degree in Mechanical Engineering), Additive Manufacturing (Master Degree in Mechanical Engineering and in Automotive Eng.), Manufacturing and Assembly Technologies (Interuniversity Master Degree in Advanced Automotive Engineering, Motorvehicle University of Emilia Romagna, administrative headquarters at Modena and Reggio Emilia University)

Delegate of the Department for the reception of disabled and SLD students.

Responsible for the third mission activities of the Department.

Contract with the EC as Expert Evaluator for the calls for proposals "HORIZON-CL4-

2021-TWIN-TRANSITION-01, HORIZON-CL4-2021-RESILIENCE-01"

Dates Since September 2017

Role Scientific Director of the Metal Additive Centre of HPE COXA Srl (Modena, Italy).

Dates 2015-2019

Role Associate Professor in Technology and Manufacturing Systems at the University of

Modena and Reggio Emilia, Department of Engineering "Enzo Ferrari".

Dates 2016-2019

Role Coordinator of the DREAM project, Horizon 2020- FOF13 2016.

Dates 2016-2019

Role Member of the Board of Management of the University of Modena and Reggio Emilia

Dates Since 2008

Role Member of the scientific Board of CIRTIBS (Interuniversity Research Centre on

Innovative Technologies for Instrumentation) in Naples

Dates 2007-2011

Role In charge of the research collaboration between the manufacturing group (ING-IND/16)

of the Department of Mechanical and Civil Engineering and the X-AT Centre (Exeter

Advanced Technologies) of Exeter University (UK).

Dates 2005-2015

Role Researcher in Technology and Manufacturing Systems at the University of Modena and

Reggio Emilia, Department of Mechanical and Civil Engineering (Dept. of Engineering

"Enzo Ferrari" since 2012).

EDUCATION AND TRAINING

Date A.A. 2001/2002 – 2003/2004

Institution University of Modena and Reggio Emilia

Title Ph.D. in Materials Engineering

Thesis "Innovative technologies for the development and production of non-conventional tools"

Date 2000

Institution Università di Modena e Reggio Emilia, Facoltà di Ingegneria

Title Degree in Materials Engineering achieved at the University of Modena and Reggio

Emilia with full marks

PERSONAL SKILLS

MOTHER TONGUE Italian

OTHER LANGUAGES English, fluent

French, basic

TECHNICAL SKILLS

Excellent knowledge of MICROSOFT WINDOWS operating systems and OFFICE

applications.

Modeling software: VISI CAD-CAM 3D

Statistical data processing software: Statistica (StatSoft)

Software for the management of SEM images and spectra from EDX microanalysis:

INCA

Knowledge of statistical tools for data analysis and Design of Experiments. Great experience in the use of scientific instruments and for technological tests, including: electron, ion and atomic force microscopy, X-ray microanalysis, X-ray

diffraction and confocal profilometry

RELATIONAL SKILLS Good predisposition to team work, excellent organizational skills, rapid learning ability,

strong practical sense.

BIBLIOMETRIC PERFORMANCE articles in the last 10 years: 33

citations in the last 15 years: 592

H-index calculated through the last 15 years: 14

RESEARCH

The research involves a number of aspects related to manufacturing technologies and systems, with a focus on additive manufacturing applied to innovative materials, but also to non-conventional processes. In all the areas addressed, the activity has always been characterized by an approach in which the study of the macroscopic performance of the process is integrated with the understanding and modelling of the mechanisms that regulate it at a microscopic scale. This methodology was built through extensive knowledge and direct use of micro-nano scale instrumentation and analysis techniques. Electron, ion and atomic force microscopy, X-ray microanalysis, X-ray diffraction and confocal profilometry are some examples. Since the early years. the activity has included a constant collaboration with the research group in Manufacturing Technology of the Department of Production Systems and Economics of Politecnico di Torino. There has been a strong propensity for research collaborations, which has first translated into contacts with groups of the same sector at other universities involved in the CIRTIBS (Interuniversity Research Centre on Innovative Technologies for Instrumental Goods), then in multidisciplinary research with groups of different cultural extraction, such as the medical and mathematical fields. In recent years, these experiences have been put to good use by establishing international collaborations with the University of Exeter (UK), Loughborough University (UK) and the Federal Technological University (Brazil). In the last years, the experience in the field of additive metal construction has been specified on the aspects of fatigue life, in collaboration with leading players in the industry such as EOS GmBH, Poly-shape and Ferrari GES. In this context, a specific research group, RAM (Research group on Additive Manufacturing), has been set up, involving the two locations of the University of Modena and Reggio Emilia, the University of Parma and the Polytechnic University of Marche. The framework described led to the important result of the approval of the project Driving up Reliability and Efficiency of Additive Manufacturing (DREAM), Horizon 2020- FOF13 2016, which sees the undersigned coordinator of the entire project.

SELECTED PROJECTS

- H2020 FOF13-2016 Photonics and lased-based production. Anno di finanziamento: 2016. Project: "Driving up Reliability and Efficiency of Additive Manufacturing (DREAM)". Funding: 3,3 M€. Role: coordinator
- H2020 FORTISSIMO2-2016 project: "Additive Manufacturing Process Simulation for metal components". Funding: 43.813 €. Role: head of a research unit
- EX-SITU REGENERATIVE BIOLOGY OF GLANDULAR PARENCHYMAL ORGANS: THE MODEL OF THE ORGANOMORPHIC SKELETON" (Scientific Coordinator: Prof. Roberto Toni Prot. 2008ZCCJX4_004). Subproject: "Production of a three-dimensional biodegradable and organomorphic scaffold for the growth and differentiation of the cells of human thyroid". Role: researcher

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Date: 15/05/2024

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