

**PERSONAL INFORMATION** Giulia Pascoletti

**EDUCATION AND TRAINING**

- 2023 - present** RESEARCH FELLOW  
*Design methods for industrial engineering - ING-IND/15*  
University of Perugia - Department Engineering
- 2021 - 2023** POST-DOCTORAL RESEARCHER  
*Design methods for industrial engineering - ING-IND/15*  
Politecnico di TORINO - Department of Mechanical and Aerospace Engineering (DIMEAS)
- 2017 - 2020** DOCTORATE IN INDUSTRIAL AND INFORMATION ENGINEERING  
University of PERUGIA - Department of Engineering
- 2015 - 2017** DEGREE IN MECHANICAL ENGINEERING  
University of PERUGIA - Department of Engineering  
2nd level degree - Master
- 2010 - 2015** DEGREE IN MECHANICAL ENGINEERING  
University of PERUGIA - Department of Engineering  
1st level degree - Degree/Bachelor

**PERSONAL SKILLS**

**Mother tongue(s)** Italian

**Other language(s)**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
<b>English</b>	B2 Independent	B2 Independent	B2 Independent	B2 Independent	B2 Independent
<b>English:</b> University of Cambridge, ESOL Examinations – First Certificate in English, European level: B2					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

**Digital competences**

**Basic digital competence:** Operating systems (Good), Programming languages (Good), Word processing (Good), Electronic spreadsheet (Good), Data base administrators (Fair), CAD skills (Good), Internet skills (Good), Multimedia (Good),  
**Programming languages known:** (Fortan, Matlab)  
**Software applications:** (Matlab, Ansys, MSC Adams, Solidworks, Autocad)

**EDUCATIONAL ACTIVITIES**

- 2022 - present** Adjunct Professor at the Department Engineering – University of Perugia, teaching “Robust Design”
- 2021 – present** Adjunct Professor at the Department of Mechanical and Aerospace Engineering (DIMEAS) – Politecnico di Torino, teaching “Fundamentals in Regulatory Affairs for Medical Devices”
- 2021 - present** Eligible lecturer in Design methods for industrial engineering - ING-IND/15 at the Department of Mechanical and Aerospace Engineering (DIMEAS) – Politecnico di Torino from A.Y. 2021/22 to A.Y. 2023/24
- 2021 - present** Assistance activity for the exams of the Technical Drawing at the Department of Engineering - University of Perugia
- 2019 - 2020**  
**2021 - present** Tutoring activity for the course of Technical Drawing at the Department of Engineering - University of Perugia
- 2018 - present** Assistance activity for the exams of the Industrial Bioengineering course at the Department of Engineering - University of Perugia

## **PUBLICATIONS**

### **Journal Papers**

“Statistical shape modelling of the human mandible: 3D shape predictions based on external features”; Pascoletti G.; International Journal on Interactive Design and Manufacturing; S [10.1007/s12008-022-00882-5](https://doi.org/10.1007/s12008-022-00882-5)

“In Silico Meta-Analysis of Boundary Conditions for Experimental Tests on the Lumbar Spine”; Borrelli S., Putame G., Pascoletti G., Terzini M., Zanetti E.M.; Annals of Biomedical Engineering; Springer (2022) [10.1007/s10439-022-03015-x](https://doi.org/10.1007/s10439-022-03015-x)

“Form Factors as Potential Imaging Biomarkers to Differentiate Benign vs. Malignant Lung Lesions on CT Scans”; Bianconi F., Palumbo I., Fravolini M. L., Rondini M., Ministrini M., Pascoletti G., Nuvoli S., Spanu A., Scialpi M., Aristei C., Palumbo B.; Sensors; MDPI (2022) [10.3390/s22135044](https://doi.org/10.3390/s22135044)

“Ex vivo biomechanical evaluation of polyester and polyblend suture techniques to perform equine laryngoplasty”; Pressanto M. C., Pascoletti G., Perkins J. D., Zanetti E. M., Beccati F., Santalucia V., Pepe M.; Veterinary Surgery; Wiley (2022) [10.1111/vsu.13777](https://doi.org/10.1111/vsu.13777)

“3D shape measurement techniques for human body reconstruction”; Xhimitiku, I., Pascoletti, G., Zanetti, E.M., Rossi, G.; Acta IMEKO (2022) [10.21014/acta\\_imeko.v11i2.1219](https://doi.org/10.21014/acta_imeko.v11i2.1219)

“Colour and texture descriptors for visual recognition: A historical overview”; Bianconi F., Fernández A., Smeraldi F., Pascoletti G.; Journal of Imaging; MDPI (2021) [10.3390/jimaging7110245](https://doi.org/10.3390/jimaging7110245)

“Impact of lesion delineation and intensity quantisation on the stability of texture features from lung nodules on ct: A reproducible study”; Bianconi F., Fravolini M. L., Palumbo I., Pascoletti G., Nuvoli S., Rondini M., Spanu A., Palumbo B.; Diagnostics (Switzerland); MDPI (2021) [10.3390/diagnostics11071224](https://doi.org/10.3390/diagnostics11071224)

“Stochastic PCA-based bone models from inverse transform sampling: Proof of concept for mandibles and proximal femurs”; Pascoletti G., Aldieri A., Terzini M., Bhattacharya P., Cali M., Zanetti E. M.; Applied Sciences (Switzerland); MDPI (2021) [10.3390/app11115204](https://doi.org/10.3390/app11115204)

"A new generation of bio-composite thermoplastic filaments for a more sustainable design of parts manufactured by FDM"; Cali, M., Pascoletti, G., Gaeta, M., Milazzo, G., Ambu, R.; Applied Sciences (Switzerland); MDPI (2020)  
[10.3390/app10175852](https://doi.org/10.3390/app10175852)

"On-site testing of sutured organs: An experimental set up to cyclically tighten sutures"; Pascoletti G., Pressanto M.C., Putame G., Terzini M. Audenino A.L., Zanetti E.M.; Journal of the Mechanical Behavior of Biomedical Materials; Elsevier (2020)  
[10.1016/j.jmbbm.2020.103803](https://doi.org/10.1016/j.jmbbm.2020.103803)

"Dynamic characterization of the biomechanical behaviour of bovine ovarian cortical tissue and its short-term effect on ovarian tissue and follicles"; Pascoletti G., Di Nardo M., Fragomeni G., Barbato V., Capriglione T., Gualtieri R., Taòvei R., Catapano G., Zanetti E.M.; Materials; Elsevier (2020)  
[10.3390/MA13173759](https://doi.org/10.3390/MA13173759)

"Mechanical Behavior of Elastic Self-Locking Nails for Intramedullary Fracture Fixation: A Numerical Analysis of Innovative Nail Designs"; Putame, G., Pascoletti, G., Terzini, M., Zanetti, E.M., Audenino, A.L.; Frontiers in Bioengineering and Biotechnology; Frontiers (2020)  
[10.3389/fbioe.2020.00557](https://doi.org/10.3389/fbioe.2020.00557)

"Data from cyclic tensile tests on sutured organs to evaluate creep behaviour, distraction, and residual thread strength"; Pascoletti G., Pressanto M.C., Putame G., Terzini M., Franceschini G., Zanetti E.M.; Data in Brief; Elsevier (2020)  
[10.1016/j.dib.2020.105644](https://doi.org/10.1016/j.dib.2020.105644)

"Design of a loading system for cyclic test on sutured organs"; Pascoletti G., Pressanto M.C., Putame G., Terzini M., Franceschini G., Zanetti E.M.; MethodsX; Elsevier (2020)  
[10.1016/j.mex.2020.100988](https://doi.org/10.1016/j.mex.2020.100988)

"Multibody Models for the Analysis of a Fall From Height: Accident, Suicide, or Murder?"; G. Pascoletti, D. Catelani, P. Conti, F. Cianetti, E. M. Zanetti; Frontiers in Bioengineering and Biotechnology; Frontiers (2019)  
[10.3389/fbioe.2019.00419](https://doi.org/10.3389/fbioe.2019.00419)

"Numerical Simulation of an Intramedullary Elastic Nail: Expansion Phase and Load-Bearing Behavior"; G. Pascoletti, F. Cianetti, G. Putame, M. Terzini and E. M. Zanetti; Frontiers in Bioengineering and Biotechnology; Frontiers (2018)  
[10.3389/fbioe.2018.00174](https://doi.org/10.3389/fbioe.2018.00174)

"Clinical Assessment of Dental Implant Stability During Follow-Up: What Is Actually Measured, and Perspectives"; E. M. Zanetti, G. Pascoletti, M. Cali, C. Bignardi, G. Franceschini; Biosensors; MDPI (2018)  
[10.3390/bios8030068](https://doi.org/10.3390/bios8030068)

"Modal analysis for implant stability assessment: Sensitivity of this methodology for different implant designs"; E. M. Zanetti, S. Ciaramella, M. Cali, G. Pascoletti, M. Martorelli, R. Asero, D. C. Watts; Dental Materials; Elsevier (2018)  
[10.1016/j.dental.2018.05.016](https://doi.org/10.1016/j.dental.2018.05.016)

#### Conference Papers

"A Benchmark of Traditional Visual Descriptors and Convolutional Networks 'Off-the-Shelf for Anomaly Detection'; Bianconi F., Conti P., Zanetti E.M., Pascoletti G.; Advances on Mechanics, Design Engineering and Manufacturing IV. JCM 2022, Lecture Notes in Mechanical Engineering; Springer, Cham.  
[10.1007/978-3-031-15928-2\\_69](https://doi.org/10.1007/978-3-031-15928-2_69)

"Design of a Snap-Fit Joint Through a Multibody Model"; Pascoletti G., Conti P., Bianconi F., Zanetti E.M.; Advances on Mechanics, Design Engineering and Manufacturing IV. JCM 2022, Lecture Notes in Mechanical Engineering; Springer, Cham

[10.1007/978-3-031-15928-2\\_47](https://doi.org/10.1007/978-3-031-15928-2_47)

"AM to produce load-bearing prostheses: a viable technological perspective for now, in a near future, or never?"; Zanetti E. M., Fragomeni G., Sanguedolce M., Pascoletti G., De Napoli L., Filice L., Catapano G.; Procedia CIRP 2022

[10.1016/j.procir.2022.06.035](https://doi.org/10.1016/j.procir.2022.06.035)

"Correlation Between IBSI Morphological Features and Manually-Annotated Shape Attributes on Lung Lesions at CT"; Bianconi F., Fravolini M. L., Pascoletti G., Palumbo I., Scialpi M., Aristei C., Palumbo B.; Medical Image Understanding and Analysis. MIUA 2022, Lecture Notes in Computer Science

[10.1007/978-3-031-12053-4\\_56](https://doi.org/10.1007/978-3-031-12053-4_56)

"Evaluation of a Morphable Anthropomorphic Articulated Total Body Model"; Pascoletti G., Huysmans T., Conti P., Zanetti E. M.; Design Tools and Methods in Industrial Engineering II, International Conference on Design, Simulation, Manufacturing: The Innovation Exchange, ADM 2021, 9 - 10 September 2021, Rome, Italy; Springer

[10.1007/978-3-030-91234-5\\_77](https://doi.org/10.1007/978-3-030-91234-5_77)

"Feature-Based Modelling of Laryngoscope Blades for Customized Applications"; Cali M., Pascoletti G., Aldieri A., Terzini M., Catapano G., Zanetti E. M.; Lecture Notes in Mechanical Engineering - 10th International Joint Conference on Mechanics, Design Engineering and Advanced Manufacturing, JCM 2020, 2 June 2020 - 4 June 2020; Springer

[10.1007/978-3-030-70566-4\\_33](https://doi.org/10.1007/978-3-030-70566-4_33)

"New filaments with natural fillers for FDM 3D printing and their applications in biomedical field"; M. Cali, G. Pascoletti, M. Gaeta, G. Milazzo, R. Ambu; Procedia Manufacturing - 30th International Conference on Flexible Automation and Intelligent Manufacturing, FAIM 2021; Elsevier (2020); FAIM 2021 International Conference

[10.1016/j.promfg.2020.10.098](https://doi.org/10.1016/j.promfg.2020.10.098)

"Mandible Morphing Through Principal Components Analysis"; G. Pascoletti, M. Cali, C. Bignardi, P. Conti, E. M. Zanetti; Design Tools and Methods in Industrial Engineering; Springer (2020); ADM2019 International Conference

[10.1007/978-3-030-31154-4\\_2](https://doi.org/10.1007/978-3-030-31154-4_2)

"Characterization of a polylactic acid (PLA) produced by Fused Deposition Modeling (FDM) technology"; Corapi D., Morettini G., Pascoletti G., Zitelli C.; Procedia Structural Integrity; Elsevier (2019)

[10.1016/j.prostr.2020.02.026](https://doi.org/10.1016/j.prostr.2020.02.026)

"A multibody simulation of a human fall: Model creation and validation"; Pascoletti G., Catelani D., Conti, P., Cianetti F., Zanetti E.M.; Procedia Structural Integrity; Elsevier (2019)

[10.1016/j.prostr.2020.02.031](https://doi.org/10.1016/j.prostr.2020.02.031)

"A Novel Technique For Testing Osteointegration In Load-Bearing Conditions"; G. Pascoletti, G. Di Chio, A. Marmotti, A. Baroncelli, P. Costa, A. Lugaz, G. Serino; WIT Transactions on Engineering Sciences, (2019)

[10.2495/MC190181](https://doi.org/10.2495/MC190181)

"Prosthetic Hip ROM from Multibody Software Simulation"; G. Putame; G. Pascoletti, G. Franceschini, G. Dichio, M. Terzini; 2019 41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC) (2019) [10.1109/EMBC.2019.8856993](https://doi.org/10.1109/EMBC.2019.8856993)

## CONFERENCES

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### Conferences/Presentations

#### **JCM 2022 International Conference**

Venue: Ischia (Italy)  
Role: Speaker  
Date: 06/2022

#### **ADM2021 International Conference**

Venue: Virtual  
Role: Junior Member and Speaker  
Date: 09/2021

#### **50° National Conference AIAS 2021**

Venue: Virtual  
Role: Junior Member and Speaker  
Date: 09/2021

#### **49° National Conference AIAS 2020**

Venue: Virtual  
Role: Junior Member and Speaker  
Date: 09/2020

#### **2020 International Joint Conference on Mechanics, Design Engineering and Advanced Manufacturing**

Venue: Virtual  
Role: Speaker  
Date: 06/2020

#### **ADM2019 International Conference**

Venue: Modena (IT)  
Role: Speaker  
Date: 09/2019

#### **48° National Conference AIAS 2019**

Venue: Assisi (IT)  
Role: Junior Member, Speaker and Organiser  
Date: 09/2019

#### **41° EMB Conference 2019**

Venue: Berlin  
Role: Speaker  
Date: 07/2019

#### **47° Convegno Nazionale AIAS 2018**

Venue: Reggio Calabria (IT)  
Role: Junior Member and Speaker  
Date: 09/2018

## EDITORIAL ACTIVITY

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### Reviewer Activity

#### **Modelling and Simulation in Engineering**

Editor: Hindawi Publishing Corporation  
ISSN: 1687-5591  
Date: 2018 - present

#### **PloS ONE**

Editor: Public Library of Science  
Date: 2021 - present

#### **Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science**

Editor: SAGE Publishing  
Date: 2021 - present

#### **Annals of Biomedical Engineering**

Editor: Springer Nature  
Date: 2021 - present

### Editorial Work

#### **Academic Editor**

Journal: Modelling and Simulation in Engineering (ISSN 1687-5605)  
Editor: Hindawi  
Date: 2022 - present

#### **Editorial Board Member - Topical Advisory Panel**

Journal: Designs (ISSN 2411-9660)  
Editor: MDPI  
Date: 2022 - present

#### **Guest-Editor**

Special Issue: Automated Product Inspection for Smart Manufacturing  
Journal: Applied Sciences (MDPI)  
Date: 2021 - present

## TEACHING ACTIVITY

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### Courses

#### **Robust Design**

Master Course in Mechanical Engineering (University of Perugia - Department Engineering), 40h, 2022-present

#### **Fundamentals in Regulatory Affairs for Medical Devices**

Master course in Biomedical Engineering (Politecnico di Torino – DIMEAS), 4.5 h, 2021 - present

#### **Technical Drawing**

Tutoring activity, course of Mechanical Engineering (University of Perugia – Department of Engineering), 50 h, 2018/2019

#### **Technical Drawing**

Tutoring activity, course of Mechanical Engineering (University of Perugia – Department of Engineering), 100 h, 2020/2021

## PROFESSIONAL HONOURS AND AWARDS

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#### **NATIONAL SCIENTIFIC QUALIFICATION - ASN 2023**

Date: 10/2023

**SOFTWARE SIMULATION AWARD-AIAS2018**

Simulation relative to: 'Design of an intramedullary nail with elastic distal anchorage'

**Grading:** 1°

[www.aiasnet.it/index.php](http://www.aiasnet.it/index.php)

Date: 09/2018

**GRADUATION TO PROFESSIONAL ENGINEER (ITALIAN LEGISLATION)**

Perugia (IT) – 06/2018