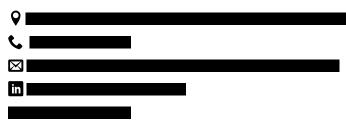
# Mario Baggetta



#### **WORK EXPERIENCE**

Nov. 2020 - present

### Research Assistant - PhD candidate

University of Genova, DIME, Genova, Italy

- · Research Topics:
  - -Underactuated robotic hands
  - -Analysis/design/optimization of compliant mechanisms and flexible components
- -Structural optimizations
- -Applications: human-like compliant joints, variable stiffness actuators
- · Teaching Activity:
- -Assistant Instructor in the course "Design of Automatic Machinery" (MSc in Mechanical Engineering)
- -Assistant Instructor in the course "Technical Drawing" (BSc in Nautical Engineering) -Member of the examination board for "Design of Automatic Machinery" (MSc in
- Mechanical Engineering), "Mechanics of Machines" (BSc in Mechanical Engineering) and "Technical Drawing" (BSc in Naval Architecture and Marine Engineering, BSc in Nautical Engineering)

## Jun. 2019 - Oct. 2020 Research Fellow

University of Genova, DIME, Genova, Italy

- · Research Topics:
  - -Multi-Flexible body dynamics
  - -Non-linear FEA
  - -Mechatronics Systems control
- Consulting Activity for Ansaldo Energia:
- -Factory 4.0
- -Advanced simulation of assembly operations
- -FEA simulation of heavy lifting operations

#### **EDUCATION**

Nov. 2020 - present

### PhD in Mechanical Engineering

University of Genova, DIME, Genova, Italy

· Supervisors: Prof. Giovanni Berselli

Sept. 2016 - Mar. 2019

### MSc in Mechanical Engineering

University of Genova, DIME, Genova, Italy

• Scored: 109/110

Sept. 2011 - Dec. 2016

## BSc in Mechanical Engineering

University of Genova, DIME, Genova, Italy

Scored: 90/110

### PERSONAL SKILLS

Languages

- Italian: Mother tongue
- · English: Professional Knowledge

#### **TECHNICAL SKILLS**

**Operating System** 

· Windows: Office Package, Adobe Illustrator, Latex

**Programming Languages** 

- · Matlab/Simulink
- Labview

Computer Aided Design

- PTC Creo
- Solidworks (Certified Associate C-8KSNEK4ETG)
- SiemensNX

**Multibody Dynamics** 

- RecurDyn
- Simulink

Finite Element Analysis

ANSYS Workbench

#### **PROJECTS**

### Jun. 2019 – present Lighthouse Plant

Ansaldo Energia, Genova, Italy

- · Main activities: Advanced simulation of assembly and manipulation operations in Factory 4.0.
- Budget: 14 m€

#### REVIEWER ACTIVITY

Reviewer for the journals:

Transactions on Mechatronics (IEEE)

Reviewer for the conferences:

- · IEEE BioRob International Conference on Biomedical Robotics and Biomechat-
- IEEE IROS International Conference on Intelligent Robots and Systems

### **PUBLICATIONS**

### Journal Papers:

- J1: Verotti, M., Berselli, G., Bruzzone, L., Baggetta, M., Fanghella, P. "Design, Simulation and Testing of an Isotropic Compliant Mechanism". Precision Engineering. (UNDER REVIEW)
- J2: Bilancia, P., Baggetta, M., Hao, G., Berselli, G. "A variable section beams based Bi-BCM formulation for the kinetostatic analysis of cross-axis flexural pivots". International Journal of Mechanical Sciences. (UNDER REVIEW)
- J3: Bruzzone, L., Baggetta, M., Fanghella, P. "Fractional-Order PII1/2DD1/2 Control: Theoretical Aspects and Application to a Mechatronic Axis". Applied Sciences, 2021, 11(8), 3631.
- J4: Bilancia, P., Baggetta, M., Berselli, G., Bruzzone, L., Fanghella, P. "Design of a Bio-Inspired Contact-Aided Compliant Wrist". Robotics and Computer-Integrated Manufacturing, 2021, 67, 102028.
- J5: Bruzzone, L., Baggetta, M., Nodehi, S.E., Bilancia, P., Fanghella, P. "Functional design of a hybrid leg-wheel-track ground mobile robot". Machines, 2021, 9(1), pp.1-11, 10.
- **J6:** Bruzzone, L., Fanghella, P., **Baggetta, M.**. "Experimental assesment of fractionalorder pdd1/2 control of a brushless motor with inertial load". Actuators, 2020, 9(1), 13.

# Posters & Workshops:

**PW1: Baggetta, M.**, Bilancia, P., Berselli, G., Bruzzone, L., Fanghella, P. "CAE-based design of a cable driven human-like robotic wrist. International CAE Conference". 2020.

### AUTORIZZAZIONE DATI PERSONALI

Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).