

ILARIA PACIFICO



Executive Summary:

- Biorobotic PhD candidate with experience in a company research and development environment
- Expertise in conducting experimental campaigns with human subjects to investigate the effectiveness of wearable robots for industrial applications both in laboratory and ecological scenarios
- Excellent computer skills for biomechanical data analysis. Strong core: Matlab and Labview programming environment

ACADEMIC EXPERIENCE

Now – 2018 International PH.D. in Biorobotics degree

Sant'Anna School of Advanced Studies, Pisa (Italy) - <https://www.santannapisa.it/it>

Scholarship funded by IUVO S.r.L - <https://www.iuvo.company/>

PhD project title: "Occupational exoskeletons: Removing barriers to their large-scale adoption"

2015 – 2018 Master's degree in Bionics Engineering

<http://www.bionicsengineering.it/edu/>

Score: 110/110 cum laude

University of Pisa (Italy) jointly with Sant'Anna School of Advanced Studies, Pisa (Italy)

Curriculum: Biorobotics

Area of interest: humanoid/animaloid robot models, wearable robots, bionic implantable organs, artificial upper and lower limbs, robots and platforms for diagnosis, surgery and rehabilitation, computational biomechanics, micro/nano-robots and biomaterials

Thesis: "Assessment and functional validation of a passive upper limb exoskeleton for workplace assistance"

2011 – 2015 Bachelor's degree in Biomedical Engineering

University of Pisa (Italy)

Score: 101/110

Curriculum: Informazione

Thesis: "Development and design of systems for hand motion capture"

SKILLS

Languages Italian (mother tongue), English C1

Computer Expertise in Windows OS, Linux OS, Office (ECDL Certification)
Expertise in MATLAB and Labview programming environment
Knowledge ok MATLAB Neural Network toolbox
Knowledge of assembly and C/C++ language program
Knowledge of CAD software (3D Solidworks, ANSYS)
Knowledge of Weka – open source software for data mining
Knowledge of Photoshop
Basic knowledge of ROS robotic software platform

Hands on activities Experimental activities for the evaluation of exoskeletons for industrial applications in laboratory settings and in real contexts of use
Expertise in electromyographic and kinematics data processing
Experience in chemical laboratory
Experience in biological laboratory
Experience in clean room microfabrication
Practical activities using smart materials (shape memory alloy, flexible fluidic actuators, granular jamming, electroactive polymers)
Team projects using neural networks and genetic Algorithm
Team projects involving microcontroller programming to communicate with Azzurra Hand (a hand robotic prostheses by the Biorobotics Institute, Sant'Anna School of Advanced Studies)

PARTICIPATION TO NATIONAL AND INTERNATIONAL CONFERENCES

2015 Trieste Next
2015 XXIII Congresso Nazionale della Società Italiana di Psicofisiologia SIPPF Tecnologie biomediche in riabilitazione conference
2017 TEDx Sant'Anna School
2017 SIRN National Conference
2020 WeRob International Conference (attendance as a speaker)

PUBLICATIONS

Pacifico, Ilaria, et al. **"An Experimental Evaluation of the Proto-MATE: A Novel Ergonomic Upper-Limb Exoskeleton to Reduce Workers' Physical Strain."** IEEE Robotics & Automation Magazine 27.1 (2020): 54-65
Pacifico, Ilaria, et al. **"Using a Spring-Loaded Upper-Limb Exoskeleton in Cleaning Tasks: A Preliminary Study."** Wearable Robotics: Challenges and Trends (2021)
Crea, Simona, et al. **"Occupational exoskeletons: A roadmap toward large-scale adoption. Methodology and challenges of bringing exoskeletons to workplaces."** Wearable Technologies 2 (2021).
Pacifico, Ilaria, et al. **"Exoskeletons for workers: A case series study in an enclosures production line."** Applied Ergonomics 101 (2022): 103679.
