

● WORK EXPERIENCE

01/10/2020 – CURRENT Pisa, Italy

PHD STUDENT IN BIOROBOTICS SCUOLA SUPERIORE SANT'ANNA

I am currently a PhD student in Biorobotics at the Wearable Robotics Laboratory of Scuola Superiore Sant'Anna. I am involved in different research projects both Europeans (e.g. H2020 ReHyb), and Italian (e.g. BioArm) in collaboration with INAIL. I work in an interdisciplinary group with european and extra-european colleagues.

My research interest focus on exoskeletons, robotic systems for rehabilitation, wearable technologies and human-robot interaction strategies.

Department Biobotics Institute | **Address** Viale Rinaldo Piaggio 34, 56025, Pontedera, PI, Italy |

Email davide.astarita@santannapisa.it

● EDUCATION AND TRAINING

01/03/2019 – 24/06/2019 Stockholm, Sweden

ERASMUS+ PROGRAMME KTH- Royal Institute of Technology

Exams :

Pattern recognition and machine learning

Applied nonlinear optimization

Address Stockholm, Sweden

01/11/2017 – 20/03/2020 Naples, Italy

MASTER DEGREE AUTOMATION ENGINEERING University of Naples Federico II

Principal Studies and exams :

Multivariable control

Optimal control and estimation theory

Robot control and advanced robotics

Real time systems

Nonlinear control

Virtual prototyping

Operative research

Modelling and dynamics of magnetic fields

Machines and electrical drives control

Thesis:

Modelling and control of a Bimanual redundant structure with arms and under-actuated antropomorphic hands. The aim was a human like behaviour of the whole structure. In particular, postural synergies have been exploited for the hands.

Supervisor: Bruno Siciliano , Fanny Ficuciello

Address Naples, Italy | **Final grade** 110 Cum Laude | **Thesis** Human Likeness in Bimanual Robotic Manipulation

07/2017 – 07/2017 Naples, Italy

SUMMER SCHOOL CI-LAM University of Naples Federico II

Il CI-LAM (China-Italy Joint Laboratory on Advanced Manufactory), signed in 2017 in Beijing by MIUR and MOST(chinese Science and Technology Minisrty) ministers , is part of the programm Science and Innovation week Italy-China. During a whole week some students from Tsinghua University, Beijing, came to Naples and we worked together in the workshop on Smart Manufacturing, developing an Intelligent microcontroller-driven green house.

Address Naples, Italy

Naples, Italy

COLLABORATION WITH UNINA CORSE TEAM Unina Corse Combustion Team

Student Association

Developing of a wireless monitoring system for a race car, based on microcontrollers and Lo-Ra technology.

Address Naples, Italy | **Website** <https://www.uninacorse.com/>

20/09/2014 – 31/10/2017 Naples, Italy

BACHELOR DEGREE AUTOMATION ENGINEERING University of Naples Federico II

Principal Studies:

Simulation and automatic control theory

Signal theory

Object Oriented Programming

Programming of microcontrollers and PLC

Machines and Electrical drives knowledge

Mechanics and 3D Prototyping

Measurement for automation

Thesis:

A three-fingered underactuated hand used in robotic surgery has been controlled, with a servomotor and a Matlab interface. Some basics of trajectory planning have been investigated and implemented on a 3-D printed model of the hand.

Supervisor: Luigi Villani

Address Naples, Italy | **Final grade** 110 cum Laude | **Thesis** Control of a robotic tendon actuated hand

2014 Naples, Italy

CLASSICAL HIGH SCHOOL DIPLOMA

Address Naples, Italy

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **ADDITIONAL INFORMATION**

DRIVING LICENCE

Driving Licence: A2

Driving Licence: B

ORGANISATIONAL SKILLS

Teamwork and communication I experienced working in groups several times during my studies and educational path.

In my current experience, I work in several project teams with different members, with positive outcomes in terms of professional relationships.

Strategic Planning and Project Management Within my PhD, I am actively involved in planning activities and decision making processes, coordinating my team colleagues and external project partners.

I have experience in :

- project deliverables editing
- medical devices certification documentation
- generic reports and documents preparation

COMMUNICATION AND INTERPERSONAL SKILLS

Interpersonal skills I developed attitude to work within teams with mixed scientific backgrounds, with interdisciplinary approach to problem solving and exploiting resiliency toward end results.

I gained experience working in several international group with colleagues from around the world, bonding with them not only from a professional point of view.

Communication and Public Speaking I had several experiences from my education to my current position to strengthen my communication skills in official and unofficial events. I took part in events for either scientific dissemination and technical presentation, some of them listed below :

- workshops european project meetings
- public talk titled "*Exoskeletons to assist, rehabilitating and augmenting body functions: the Biorobotics Institute experience*", at Festival della Robotica held in Pisa

CERTIFICATIONS

Boating License

Cambridge English Level 2 in ESOL International (Advanced) (CAE) Europe Level C1

SCIENTIFIC PUBLICATION

A project of fitness telemonitoring in an information technology course

A. Michele *et al.*, 2017 IEEE International Workshop on Measurement and Networking (M&N), Naples, 2017, pp. 1-5, doi: 10.1109/IWMN.2017.8078358.

NESM-y: An Upper-Limb Exoskeleton With Compliant Actuators for Clinical Deployment

J. Pan *et al.*, in IEEE Robotics and Automation Letters, vol. 7, no. 3, pp. 7708-7715, July 2022, doi: 10.1109/LRA.2022.3183926.

Consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni previste dall'art. 76 del D.P.R. 445/2000, dichiaro che le informazioni riportate nel curriculum vitae corrispondono a verità.

Pisa , 01/06/2023

Davide Astarita