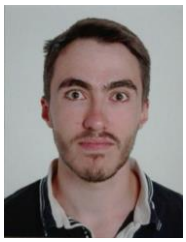
Curriculum vitae

PERSONAL INFORMATION

Marco Minelli



Via delle Sponde 8, 41040 Polinago (Italy)

320 90 83 977

marco.minelli@unimore.it

Skype live:minno_93

Sex Male | Date of birth 6 Nov 1993 | Nationality Italian

POSITION

PhD Student

WORK EXPERIENCE

1/11/2018 – Today

PhD student

I'm actually a PhD student in Industrial innovation engineering, curriculum Mechatronics and Energy, at the University of Modena and Reggio Emilia in Reggio Emilia. I'm working on surgical robotics and on the SARAS project (Smart Autonomous Robotic Assistant Surgeon" (SARAS), H2020 RIA ICT-779813).

16/5/2018 – 1/11/2018

Research fellow

I have been a research fellow at the ARS control laboratory of the University of Modena and Reggio Emilia in Reggio Emilia. I'm working on SARAS project (Smart Autonomous Robotic Assistant Surgeon" (SARAS), H2020 RIA ICT-779813) on develop a control architecture for a dual arm robotic system that can work as assistant surgeon in laparoscopic surgery.

15/10/2017 – 15/11/2018

Visiting student

During my Master school thesis I have been a visiting student at the institute "École Polytechnique de Montréal" (Montréal, Canada) within the project "Maintenance and Control of Distributed Robot and Sensor Networks", funded by the ministries of international relationships of Italy and Quebec, for a period of one month, in order to carry out collaborative activities related to the Master school research work.

1/10/2017 – 31/3/2018

Master school traineeship

During the 2th year of Master school I worked as a researcher at the ARS control laboratory of the University of Modena and Reggio Emilia in Reggio Emilia. Main topics were multi-robot system and networks.

1/3/2015 – 31/8/2015

Bachelor school traineeship

During the 3th year of Bachelor school I worked as a researcher at the ARS control laboratory of the University of Modena and Reggio Emilia in Reggio Emilia. Main topics were teleoperation and app development for wearable devices.

2012

Electronic technician

During the 5th year of high school I worked as an intern at the company "assist.srl" of Modena for a period of 2 weeks, in which I did various tasks, among which, televisions repair and review of elementary electrical circuitc.

EDUCATION AND TRAINING

2015–2018

Master school in Mechatronics engineering

University of Modena and Reggio Emilia - Department of Sciences and Methods for Engineering
Via amendola 2, 42122 Modena (Italy) - http://www.dismi.unimore.it

Control of industrial robots, Digital control, Embedded system design, Industrial analog electronics, Aided mechanics design and CAM.

Research thesis held at the University of Modena and Reggio Emilia

Thesis title: Design and experimental validation of multi-robot systems robust control algorithms.

Topic: Develop and validate from experimental point of view, connectivity maintenance and robustness improvement algorithms in the field of multi-robot systems. After an experimental campaign that highlighted the performance of algorithms, an on-line optimization algorithm was developed for the main system parameters. Final performance was then evaluated.

110/110 with honors

2012–2015

Bachelor school in Mechatronics engineering

University of Modena and Reggio Emilia - Department of Sciences and Methods for Engineering
Via Amendola 2, 42122 Modena (Italy) - http://www.dismi.unimore.it

Automatic control, Design and construction of machines, Electronics, Mechanics, Electrotechnics.

Research thesis held at the University of Modena and Reggio Emilia

Thesis title: Design and development of a teleoperation algorithm for quadcopters using smartwatch.

Topic: develop a teleoperation algorithm for quadcopters able to allow motion control through the use of a new generation smart-watch. After having identified the most suitable smartwatch on the market, an application has been developed to provide the main parameters of the inertial platform of the watch to an external central unit controller. Subsequently, the motion control and gesture recognition system was implemented.

106/110

2007–2012

Technical school graduation in Electronics and Telecommunications

Istituto tecnico Enrico Fermi
Via Luosi 23, 41124 Modena (Italy) - http://www.fermi-mo.gov.it

Elettronics, Telecommunications, Digital systems, design technologies, Electrotechnics.

87/100

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

Computer skills

- Excellent knowledge of Microsoft Office tools and generla editing.
- Good knowledge of C, C++, JavaScript and HTML programming languages.
- Excellent knowledge of CAD tools.
- Good knowledge of CAM, FEM, CFD and electronics simulation tools.

Driving licence B

PUBBLICATIONS

V. Villani, L. Sabattini, G. Riggio, C. Secchi, M. Minelli and C. Fantuzzi. *A Natural Infrastructure-Less Human–Robot Interaction System*. IEEE Robotics and Automation Letters (Volume: 2, Issue: 3, July 2017).

J. Panerati, M. Minelli, C. Ghedini, L. Meyer, M. Kaufmann, G. Beltrame and L. Sabattini. *Robust Connectivity Maintenance for Fallible Robots*. Submitted to Autonomous Robots (Springer).

M. Minelli, M. Kaufmann, J. Panerati, C. Ghedini, G. Beltrame, and L. Sabattini. *Stop, Think, and Roll: Online Gain Optimization for Resilient Multi-robot Topologies*. Submitted to DARS2018.