



# Fulvio Mastrogiovanni

Associate professor

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## *Education and training*

2008

**Ph.D in Bioengineering Material Science and Robotics**

University of Genoa - Genoa - IT

2003

**Qualification as a registered Professional Engineer**

Genoa - IT

2003

**Laurea Degree in Computer Engineering**

University of Genoa - Genoa - IT

## *Academic experience*

2017 - ONGOING

**Member of the Commission for International Relationships**

University of Genoa - Genoa - IT

2014 - ONGOING

**Responsible for the joint lab between University of Genoa and the Japan Advanced Institute of Science and Technology (JAIST) about Perception Knowledge and Behavior Development for Robots.**

University of Genoa - Genoa - IT

2011 - ONGOING

**Assistant Professor**

University of Genoa - Genoa - IT

## *Work experience*

2018 - ONGOING

**Member of the Admission and Review Board Digital Tree AI.**

Digital Tree AI - Genoa - IT

2017 - ONGOING

## Member of the Board of Directions of the Italian Association for Artificial Intelligence.

Italian Association for Artificial Intelligence - Cesena - IT

### *Language skills*

#### **English**

Proficient

#### **Italian**

Mother tongue

### *Teaching activity*

- 2017 – **present time**. Social Robotics (4 credits) as part of the European Master on Advanced Robotics (EMARO – <http://emaro.irccyn.ec-nantes.fr/>), University of Genoa, Italy.
- 2015 – **present time**. Fundamentals of Computer Science (9 credits), University of Genoa, Italy.
- 2009 – **present time**. Software architectures for Robotics (5 credits), as part of the European Master on Advanced Robotics (EMARO – <http://emaro.irccyn.ec-nantes.fr/>), University of Genoa, Italy.
- 2012 – 2015. Fundamentals of Computer Science (12 credits), University of Genoa, Italy.

### *Postgraduate research and teaching activity*

#### **PhD committees membership**

- 2016 - **present time**. Reference person for the curriculum 'Robotics and Autonomous Systems' of the Ph.D. School on Bioengineering and Robotics.

### *Research interests*

- **Knowledge representation**: first order based models, description logic-based models, Allen's interval algebra, region connection calculus.
- **Planning and reasoning**: STRIPS based planning, PDDL(+) based planning, common-sense reasoning.
- **Tactile sensing for robots**: design, manufacturing, calibration, data acquisition, data processing, software architectures, data representation, control, tactile-based motion planning.
- **Human-robot interaction**: cooperation models, coordination models, physical human-robot interaction, and cognitive models.

### *Grants*

2018 - ONGOING

**Artificial Somatosensation for Humans and Humanoids (AH2)**

Ministero Affari Esteri e Cooperazione Internazionale - Israeli Ministry of Science and Technology - IT

Participant

2017 - ONGOING

**Culture-Aware Robots and Environmental Sensor Systems for Elderly Support (CARESSES)**

European Commission (H2020)

Participant

2015 - ONGOING

**European Master on Advanced Robotics Plus (EMARO+)**

European Commission (ERASMUS+)

Participant

2015 - 2017

**Wearable and Ambient Intelligence Make Assistive Robots Smarter (WearAmI)**

Ministero Affari Esteri e Cooperazione Internazionale - Ministero Università e Ricerca - Swedish Research Council

Participant

2013 - 2015

**Cloth Perception and Manipulation (CloPeMa)**

European Commission (FP7)

Participant

2011 - 2014

**A Secure Habitat for an Enhanced Long Life (SHELL)**

Ministero Sviluppo Economico - IT

Principal investigator

2009 - 2012

**Skin-Based Technologies and Capabilities for Safe Autonomous and Interactive Robots (ROBOSKIN)**

European Commission (FP7)

Participant

***Editorial activity***

- 2014 – **present time**. Review Editor for Frontiers in Robotics and AI – Humanoid Robotics (Frontiers Media S.A.).
- 2014 – **present time**. Associate Editor for Robotics and Autonomous Systems, Elsevier, with a special appointment on “Innovation”.
- 2012 – **present time**. Senior Editor for Intelligent Service Robotics (Springer).

- 2018. Program co-chair for IEEE RO-MAN 2018.
- 2018. Co-organizer of the Workshop on “WORKMATE: the workplace is better with intelligent, collaborative, robot mates”, co-located with IEEE ICRA 2018, Brisbane, Australia.
- 2017. Workshop and Tutorial Chair for IEEE RO-MAN 2017.
- 2017. Co-organizer of the Workshop on “Towards a next generation of wearable robotic devices for human-oriented assistance and therapy”, co-located with IEEE ICORR 2017, London, U.K.
- 2017. Industry and Exhibition co-Chair for ERF 2017.
- 2016 – 2017. Guest co-editor for the Special Issue “Human-oriented approaches for assistive and rehabilitation robotics – engineering methods, technical implementation, and treatment”, *Robotics and Autonomous Systems*, issue 96 (Elsevier).
- 2016. Exhibition Chair for IEEE/RSJ IROS 2016.
- 2016. Workshop and Tutorial Chair for IEEE RO-MAN 2016.
- 2015. EU Program Chair for IEEE RO-MAN 2015.
- 2015. Guest co-editor for the Special Issue “Home Automation: a Human-centered perspective”, *IEEE Transactions on Automation Science and Engineering*, issue 12(4) (IEEE).
- 2014 – 2015. Guest co-editor for the Special Issue “Advances in Tactile Sensing and Touch-based Human-Robot Interaction”, *Robotics and Autonomous Systems*, issue 63 (Elsevier).
- 2014. EU Program Chair for DARS 2014.
- 2013. Program co-Chair for URAI 2013.
- 2013. EU Program Chair for IEEE RO-MAN 2013.
- 2012 – 2013. Guest co-editor for the Special Issue “Artificial Intelligence Techniques in Service Robotics” (Part I and II), *Intelligent Service Robotics*, issues 5(4) and 6(1) (Springer).
- 2012. Co-organizer of the Second Workshop on “Advanced in Tactile Sensing and Touch-based Human-Robot Interaction”, co-located with IEEE IROS 2012, Vilamoura, Portugal.
- 2012. Information Automation co-chair for IEEE CASE 2012.
- 2012. Co-organizer of the First Workshop on “Advanced in Tactile Sensing and Touch-based Human-Robot Interaction”, co-located with HRI 2012, Boston, MA, USA.
- 2012. Co-organizer of the Workshop “The ROBOSKIN Project: Results and Future Challenges”, co-located with CogSys 2012, Vienna, Austria.
- Reviewer for international journals: *ACM Computing Surveys*; *IEEE Transactions on Affective Computing*; *IEEE Transactions on Automation Science and Engineering*; *IEEE Transactions on Robotics*; *IEEE Transactions on System, Man and Cybernetics*; *Intelligent Service Robotics*; *Interaction Studies*; *International Journal of Advanced Robotic Systems*; *Journal of Intelligent and Robotic Systems*; *Robotics and Autonomous Systems*; *IEEE Robotics and Automation Letters*; *IEEE Transactions on Cognitive and Development Systems*; *Information Sciences*.
- Associate Editor / Member of the Program Committee for conferences: *AAAI* 2016; *BIBM* 2014; *HAI* 2014, 2018; *IAS-14*; *ICMIT* 2014; *ICOST* 2009–2014; *ICT Innovations* 2015, 2017; *IEEE CASE* 2012, 2013;

IEEE ICRA 2012–2018; IEEE RO-MAN 2011–2014, 2016, 2017; IEEE/RSJ IROS 2011, 2012, 2013, 2017, 2018; IJCAI 2017, 2018; Intelligent Environments 2009–2014; MoMM 2012–2014; Robotics: Science and Systems 2016, 2017, 2018; SmartE 2015.

## *Assignments abroad*

- 2014 – **present time**. Software architectures for Robotics (5 credits), as part of the European Master on Advanced Robotics (EMARO – <http://emaro.irccyn.ec-nantes.fr/>), Ecole Centrale de Nantes, France.
- 2014 – **present time**. Affiliate Associate Professor at the Center for Intelligent Robotics, JAIST, Nomi, Japan.
- 2014. Visiting Professor at JAIST, Nomi, Japan.
- 2014. Visiting Professor at Keio University, Tokyo, Japan.
- 2013. Visiting Scholar at the Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany.
- 2012. Visiting Professor at Shanghai Jiao Tong University (SJTU), Shanghai, China.
- 2011. Visiting Professor at the Asian Institute of Technology (AIT), Bangkok, Thailand.

## *Other professional activities*

- 2016 - **present time**. Founder and Chief Technical Officer, Teseo srl, Italy.