PERSONAL INFORMATION

ANTONELLO CHERUBINI

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| Nationality Italian

SUMMARY

h-index: 5 – citations: 257 (scopus)
5 journal papers; 1 book chapter; 2 conference papers; 3 patent applications

Currently assistant professor (RTDA) at the University of Trento

- The candidate is currently working at the department of industrial engineering of the University of Trento under the supervision of Prof. M. Da Lio. He teaches "Fundamentals of Mechanics" at the University of Verona.

EDUCATION

2013 – 2017 — PhD with honours at the PERCRO robotics laboratory – ING-IND/13

Sant'Anna University of Pisa

- Theoretical and experimental research on Airborne Wind Energy and on Nylon Coil Actuators at the PERCRO Robotics Laboratory in Pisa, tutor: Prof. Marco Fontana
- In 2016 one of our journal papers ranked 13th as most downloaded paper ever of the class A journal "Renewable and sustainable energy reviews" and it is the most cited of my tutor's papers. The candidate, who is first author, wrote the paper and contacted tens of researchers and companies.
- Six months secondment in TU Delft, The Netherlands, carrying out experimental research on airborne wind energy within the research team led by Prof. Roland Schmehl
- Management activities like writing deliverables for a European project.
- PhD dissertation awarded the prize Bernardo Nobile 2017

2007 – 2012 — Master's and bachelor's degree in mechanical engineering

Politecnico di Milano

- Master's rank 110/110, bachelor's rank 110/110
- Exchange program in Tongji university, Shanghai, China, 2007/2008
- Winner of the scholarship from the multinational company Tenaris in 2012

WORK EXPERIENCE

2022-2023 — Assistant professor (RTDA) at the University of Trento

- Research activities in autonomous driving at the of the University of Trento in cooperation with Centro Ricerche Fiat, Stellantis
- Teaching "Fundamentals of Mechanics" at the University of Verona

2020-2021 — Technical consultant in trials, Tribunale di Pisa

- He has served as technical consultant (C.T.U.) for several judges at the Court of Pisa

2018 - 2021 — R&D engineer at VRmedia S.r.l., Pisa

- Design of a smart helmet for remote assistance with augmented reality capabilities in close cooperation with the CTO and his team. We started the product design from scratch in 2018 and we are now producing and selling hundreds of units per year.
- Our product got the ATEX zone 1 certification.

- The candidate designed, prototyped and engineered the plastic enclosures that are certified antistatic and splash proof IP65.
- The candidate is author of a patent application and helped to write all patent applications of the company.
- Attendance to sales meetings and international tradeshows.

2018   R&D engineer at Letomec S.r.l., Pisa

- The candidate wrote a project proposal for an Oil & Gas multinational company.
- Presentation of a conference paper at ECF22, Belgrade, 2018.
- Programming of a simulator for hydrogen permeation through steel. The software integrated the MacNabb and Foster diffusion model and replaced the previous software that was used by the company.
- Management of a Siemens server to allow our machines to be operated remotely at the customers' facilities. The server has been set up for the first time.

2016   Test engineer at Cheros Srl, Pisa

- The candidate wrote a project proposal for the H2020 SME instrument.
- Programming of an extensive unit testing program for a server for the mobile hospital of MotoGP. The program made sure that the reservations of the pilots and other patients were handled properly.

2012 - 2013   R&D engineer at Kitegen S.r.l., Turin

- Feasibility analysis and design of a low-strain pulley for a large scale experimental ground-gen airborne wind energy generator. Structural analysis: Matlab

PUBLICATIONS

2023	Alexandra Velasco Vivas, Antonello Cherubini, Manolo Garabini, Paolo Salaris and Antonio Bicchi, "Minimizing Energy Consumption of Elastic Robots in Repetitive Tasks" IEEE Transactions On Systems, Man, And Cybernetics: Systems, Accepted for publication
2019	S. Watson et al, "Future emerging technologies in the wind power sector: A European perspective", Renewable and Sustainable Energy Reviews 113, 109-270
2018	Antonello Cherubini, Linda Bacchi, Serena Corsinovi, Marco Beghini, Renzo Valentini, "Hydrogen Embrittlement in Advanced High Strength Steels and Ultra High Strength Steels: a new investigation approach", ECF22, Belgrade
2017	A. Cherubini, G. Moretti, M. Fontana, "Sistema aereo di captazione eolica d'alta quota per generatore eolico", patent application
2016	A. Cherubini, R. Vertechy, M. Fontana, "Dynamic Modeling of Offshore Airborne Wind Energy Converters", (book chapter in the second edition of the AWE Book, Roland Schmehl Ed.)
2015	A. Cherubini, A Papini, R Vertechy, M Fontana, "Airborne Wind Energy Systems: A review of the technologies" Renewable and Sustainable Energy Reviews 51, 1461-1476, first google result when looking for Airborne Wind Energy
2015	A. Cherubini, R. Vertechy, M. Fontana, "Simplified Model of Offshore Airborne Wind Energy Converters", Renewable Energy
2015	A. Cherubini, G. Moretti, R. Vertechy, M. Fontana, "Experimental Characterization of Thermally-Activated Artificial Muscles based on Coiled Nylon Fishing Lines", AIP Advances 5 (6), 067158
2015	G. Moretti, A. Cherubini, R. Vertechy, M. Fontana, "Experimental characterization of a new class of polymeric-wire coiled transducers", SPIE Smart Structures, San Diego
2013	A. Cherubini, M. Ippolito, "Puleggia perfezionata per verricello ad alta efficienza", patent application ITTO20130365.

LANGUAGE SKILLS

Native language   Italian

	LISTENING	READING	SPOKEN	WRITING	CERTIFICATE
English	C2	C2	C1	C2	IELTS ACADEMIC C2 8/9
French	B1	B2	B1	A2	DELF A2
German	A1	A1	A1	A1	
Chinese	A1	A1	A1	A1	HSK ELEM. C 3/11

PROGRAMMING AND IT

OS and office
Windows, Android, Ubuntu, MS Office, Latex

Programming
Scientific - Matlab, Simulink, Mathematica
Embedded: C++
Python, Django
Version control - git
Web design - html 5, css, javascript

Engineering
Vehicle engineering: CarMaker, tcl
CAD: Autodesk Inventor, Fusion360, Solidworks, SolidEdge
FEM: Abaqus
Labview: Basic (Core1)

Prototyping
Arduino IDE for real time data acquisition

ERP CRM
Odoo, Jira

OTHER COURSES

2022
Teaching the complementary course "Project management with Jira and Trello" at the University of Trento

2017
Teaching "Fundamentals of Airborne Wind Energy Systems" at Universidad Carlos III de Madrid. 1 cfu course held with Dr. Gonzalo Sanchez Arriaga. The course covered the theoretical foundations of airborne wind energy together with relevant industrial examples. Video link

2015
Giving exercise classes on SMAs in the course given by Prof. Marco Fontana at the University of Pisa. Tutoring of 3 master's theses.

OTHER EXPERIENCE

2017
Presentation at TEDx Sant'Anna, Pisa, "The hidden power of students", Video link

2017
Developer of the non-profit website tueamore.org for housing of cancer patients. The project has helped 3000 people to find accommodation in 90 facilities and has a partnership with Trenitalia

Trento, 05th Apr 2023
Antonello Cherubini