# PROF. ENG. ALBERTO TREVISANI, PH.D. BRIEF CURRICULUM VITAE

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### **Education and Qualifications**

2002.02	Ph.D. in Mechanics of Machines (Meccanica Applicata) from the University of Brescia.
1998.03	Master Degree in Engineering and Management (Ingegneria Gestionale), with honors $(110/110 \text{ e lode})$ from the University of Padova
1997.02 - 1998.09	International education experience at the University of Strathclyde (5 months, Glasgow, UK) and internship at Beta Industrial Ltd. supervised by Bolton Institute (3 months, B k
1992.06	Bolton, UK). Scientific High School Degree with full marks (60/60) at Liceo Scientifico Statale "G. Fracastoro", Verona.
Academic Positions	
2015.04 - present	Full Professor of Mechanics of Machines (Meccanica Applicata alle Macchine) at the Department of Management and Engineering (DTG) of the University of Padova (UniPd).
2006.10 - 2015.03	Associate Professor of Mechanics of Machines at DTG-UniPd.
2004.01 - 2006.09	Assistant Professor of Mechanics of Machines at DIMEG-UniPd.
Academic Teaching	
2004.01 - present	More than 50 courses taught on 8 different topics at graduate and undergraduate level. Currently taught courses: "Mechanical vibrations", "Fundamentals of Mechanics".
2004.01 - present	supervisor or co-supervisor more than 50 master theses.
2007.01 - present	supervisor of 10 doctoral and post-doctoral students, 6 of whom subsequently enrolled as assistant, associate or full professors in research institutions (1 at Imperial College, London, $UK - 2$ at the Free University of Bozen and 3 at the University of Padova, Italy).
2011 - present	Coordinator of 4 LLP/Erasmus+ exchange programs.
Chief Executive Servi	ces to University of Padova
2023.10 - present	Head of Department – Department of Management and Engineering (DTG).
2022.09 - 2023.10	Coordinator of the chief strategic board of the DTG ("Commissione sviluppo risorse e

2020.10 present	The addition of the second sec
2022.09 - 2023.10	Coordinator of the chief strategic board of the DTG ("Commissione sviluppo, risorse e
	reclutamento").
2014.10 - 2022.09	President (elected twice) of the Degree Course in Product Innovation Engineering -
	earlier M.Sc program and since 2018.10 also B.Sc program.
2016.07 - 2018.09	Coordinator of the Steering Committee ("Comitato ordinatore") of the Degree Course in
	Product Innovation Engineering - B.Sc program.
2010.07 - 2016.03	Deputy Director of the Doctoral School of Mechatronics and Product Innovation
	Engineering.
2011.05 - 2014.10	Deputy President of the Degree Course in Engineering and Management.
2009.01 - 2012.12	Coordinator (elected) of the Ph.D. Curriculum in Mechatronics and Industrial Systems of
	the Doctoral School of Industrial Engineering.

### **Publications, Conferences and Patents**

- Author or co-author of 170 manuscripts 70 journal articles (source: Padua Research Archive).
- Bibliometric indices (source: Scopus): 114 documents, 1469 citations, 22 *h*-index.
- More than 20 publications with international co-authors (e.g., Prof. H. Ouyang, University of Liverpool UK, Prof. J. Cuadrado, Universidad de La Coruña Spain, Prof. R. L. Williams II, Ohio University USA).
- Invited plenary lecturer and keynote speaker on cable-driven parallel robots at 2 international conferences (MAMENC 2012, Beijing, China and WSMEAP 2014, Sousse, Tunisia).
- Invited lecturer on performance evaluation of rigid-link and cable-driven robots at the international winter school RoBozen 2020 (Bozen, Italy).

- Member of the Scientific Committees of 7 conferences and workshops: "IFIT 2022", Sep. 7-9, 2022, Napoli (Italy), "IFIT 2020", Sep. 9-11, 2020, Online, "IFIT 2018", Nov. 29-30, 2018, Cassino (Italy), "IFIT 2016", Dec. 1-2, 2016, Vicenza (Italy), "Multibody Dynamics Workshop 2016", Apr. 11-15, 2016, Parma (Italy), "CMSM'2015", Mar. 23-25, 2015, Hammamet (Tunisia), "CSMS'2011", Mar. 21-23, 2011, Sousse (Tunisia).
- Co-organizer of the topic "Robotics" of the "ECCOMAS 2015", June 29 to July 2, 2015, Barcelona (Spain).
- Member of the Program Committee of the "CableCon2014", August 24 27, 2014, Duisburg (Germany).
- Co-author of the European patent "Test System for Electronic Devices Provided with an Accelerometer, and a Method thereof", EP3474022-2019, for testing car black boxes with an instrumented Delta robot. Developed in cooperation with Generali-Jeniot S.p.A. and Viasat S.p.A.

### **Chief Professional Services**

- 2022.12 present Member of the Editorial Board of the international journal "Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics", Sage Publications.
- 2012.12 present Member of the Editorial Board of the international journal "International Journal of Advanced Robotic Systems", Sage Publications.
- 2012.07 2014.03 Member of the Editorial Board of the international journal "Mathematical Problems in Engineering", Hindawi Publishing Corporation.
- Since 2021, member of the national committee for the National Scientific Qualification (ASN) of candidates to associate and full professor positions in the Mechanics of Machines Scientific Sector (S.C. 09/A2).
- Since 2017, member or president of more than 20 selection boards for the recruitment of faculty positions at the Universities of Bologna, Bolzano, Brescia, Calabria, Genova, Padova, Roma-Tor Vergata, Trieste, Verona and at the Polytechnic Universities of Bari and Marche.
- Since 2014, invited peer reviewer for national and international project proposals funded by Qatar Foundation (Qatar), Research Foundation Flanders (Belgium), University of Cyprus (Cyprus), Italian Ministry of Education, University and Research MIUR (Italy), ITIA-CNR (Italy).
- Since 2008, member or president of 6 doctoral dissertation committees in France, Spain and Italy.

## **Research Interests**

Current research interests are in the fields of industrial robotics (performance evaluation, energy efficient trajectory planning, collaborative robots), cable driven robots (modeling, trajectory planning, performance evaluation, recovery strategies in case of cable failures, reconfigurable cable robots driven by mobile agents), flexible-link multibody systems (model reduction, model updating, state estimation, motion and vibration control), design optimization of vibrating systems (inverse dynamic structural modification, model reduction). He is also involved in the PNRR research activities of the consortium "iNEST" (Interconnected North Est Innovation Ecosystem) and "NEFERTARI" program funded by the European Union Next GenerationEU. He is in charge of the "Automation and Robotics Laboratory" at DTG.

### **Coordination of Research Programs**

- 2022-present: Local Coordinator of the PRIN2020 Project "Extending Robotic Manipulation Capabilities by Cooperative Mobile and Flexible Multi-Robot Systems (Co-MiR)": 176 k€ budget of the research unit funded by the Italian Ministry of University and Research.
- 2017-2020: Co-Principal Investigator of the 3-year FORSAL project (FOnderia Robotizzata per la Salute dei Lavoratori Robotized Foundry for Workers' Health): a 2 M€ research program funded by Veneto Region, involving 8 industrial partners (POR FESR 14-20).
- 2017-2019: Co-drafter of the 8 M€ and 5-year (2018-2022) research program SISTEMA (Strategia Interdisciplinare per lo Sviluppo di TEcnologie Meccatroniche Avanzate) funded by the Italian Ministry of Research and Education for Excellence University Departments (MIUR-Dipartimenti di Eccellenza).
- 2014-2017: Principal Investigator of the 3-year RAP project (Rene Artificiale Portatile Wearable Artificial Kidney): 400 k€ research program funded by Cariverona Foundation involving the Universities of Padova, Verona and the Ospedale S. Bortolo in Vicenza.
- 2010-present: Principal Investigator of 14 research projects and technology transfer programs funded by private companies (e.g., Prima Industrie S.p.A., Uteco converting S.p.A., L'Inglesina Baby S.p.A.).
- 2009-2014: Coordinator of two work packages with independent budget in two related 4-year research programs funded by CariVerona Foundation focused on low energy consumption technologies and automations for food industry. Total budget: 210 k€.
- 2007-2011: Principal Investigator of 3 research programs funded by the University of Padova.