University Academic Curriculum Vitae

Personal information Teresa Sinico

Education since leaving school

- 2020: Bachelor's degree in Mechatronic Engineering, University of Padua
- 2022: Master's degree in Mechatronic Engineering, University of Padua

Present appointment

- (2024-present): Professor of "Industrial Plants" at Master's degree in Computer Engineering for Robotics and Smart Industry at University of Verona
- (2023-present): Lecturer of exercises lessons of "Meccanica Applicata alle machine" and "Meccanica Delle Macchine Automatiche" in the Bachelor's degree in Industrial and Mechanical Engineering at Free University of Bozen-Bolzano
- (2022-present): PhD student of the Doctoral Course in Mechatronics and Product Innovation Engineering at University of Padua with thesis "PLC-based control of industrial robots for highly complex tasks"

Professional experience

- (2022-2024): teacher of "Robotics and Mechatronics Systems" at ITS Academy Meccatronico Veneto

Experience in academic teaching

- (2024-present): Professor of "Industrial Plants" at Master's degree in Computer Engineering for Robotics and Smart Industry at University of Verona
- (2023-present): Lecturer of exercises lessons of "Meccanica Applicata alle machine" and "Meccanica Delle Macchine Automatiche" in the Bachelor's degree in Industrial and Mechanical Engineering at Free University of Bozen-Bolzano
- (2022-present): Teaching assistant of laboratory lectures of Industrial Robotics in the Master Degree in Mechatronic Engineering at University of Padua
- Undergraduate supervision: 6 students supervised in the past year during their master thesis with focus on industrial and collaborative robotics

Memberships Review Editor on the Editorial Board of Industrial Robotics (speciality section of Frontiers in Robotics and AI).

Research and scholarships

- My research interests are in the general areas of robotics and control. In particular, I have been working on kinematic and dynamic modeling, trajectory planning, motion planning and control of industrial robots for highly complex tasks. I am currently investigating the control schemes used in industrial robots, assessing their limitations and developing new ones.
- 2020: won the scholarship "Mille e una Lode"
- 2021: won the scolarship "Mille e una Lode"

Publications G. Boschetti and T. Sinico. «Designing Digital Twins Of Robots Using

Simscape Multibody». In: *Robotics* 13(4), 62 (2024). DOI: 10.3390/robotics13040062

G. Boschetti and T. Sinico. «A novel step-by-step procedure for the kinematic calibration of robots using a single draw-wire encoder». In: *International Journal of Advanced Manufacturing Technology* 131(7-8), pp. 4129–4147 (2024). DOI: 10.1007/s00170-024-13219-1

G. Boschetti, T. Sinico and A. Trevisani. «Improving Robotic Bin-Picking Performances through Human-Robot Collaboration». In: *Applied Sciences (Switzerland)* 13.9 (2023). DOI: 10.3390/app13095429

G. Boschetti and T. Sinico. «Performance Comparison of Two Architectures of 6R Articulated Robots». In: *Machines* 11.2 (2023). DOI: 10.3390/machines11020306

Statement of interest

Mechatronic Engineer and PhD student with expertise in the area of mechanical modeling of robots and control strategies. Committed to teaching, researching, and making developments in the field of industrial and collaborative robotics.

Language competence

Italian: fist language
Other languages: see table below

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A1	A1	A1	A1	A1

Date 15/07/2024