

Europass Curriculum Vitae



Personal information

Name / Surname

Personal Email

Nationality

Date of birth

Research Unique Identifier

Cordella Francesca

f.cordella@unicampus.it

Italian

March 27, 1979

SCOPUS ID: 55388280900

ORCID ID: 0000-0002-6946-0377

Current employment

Associate Professor of Bioengineering at the Campus Bio-Medico University of Rome, Unit of Advanced Robotics and Human-centred Technologies

Bibliometric indices

	Scopus	Scholar
Number of total documents	133	153
h-index	25	29
Number of citations	2596	3696

Education and training

2008—2011

Doctor of Philosophy in Computer Science and Automation Engineering, received by the University of Naples Federico II

- Thesis title: Grasping algorithms for anthropomorphic robotic hands

2008

State certification in order to practice as an engineer

a.a. 2006-2007

Electronic Engineering degree at the University of Naples Federico II

- Thesis in Robotics: Technologies for the simulation of laparoscopic surgery
- Mark: 110/110

Previous Positions

February 2022—January 2025

Assistant Professor with tenure track (RTDB) at Campus Bio-Medico University of Rome, Unit of Advanced Robotics and Human-centred Technologies

November 2018—November 2021

Assistant Professor (RTDA) at Campus Bio-Medico University of Rome, Research Unit of Advanced Robotics and Human-centred Technologies

Professional experience

2025—2026

Expert Reviewer of European Projects Horizon H2020 for the European Commission

December 2021—January 2022

Collaboration contract for research activities with the Campus Bio-Medico University of Rome in the framework of the research project WiFi-MyoHand

November 2017—November 2018	Assistant Researcher at Campus Bio-Medico University of Rome in the framework of the research project PPRAS 1/3—Implantable system for the control of upper limb prostheses with invasive neural interfaces and wireless communication. —Research program title: Experimental validation of the human sensori-motor control on an anthropomorphic arm-hand robotic system.
2018	Evaluator of “La Caixa Foundation” projects in the framework of the “Health Research” Call.
November 2014—November 2017	Assistant Researcher at Campus Bio-Medico University of Rome in the framework of the research project PPR2—Control of upper limb prostheses with invasive neural interfaces. —Research program title: Experimental validation of the human sensori-motor control on an anthropomorphic arm-hand robotic system.
March 2017	Expert Reviewer of European Projects Horizon H2020 for the European Commission in the framework of Personalised coaching for well-being and care of people as they age.
June 2015	Expert Reviewer of European Projects Horizon H2020 for the European Commission in the framework of ICT for active and healthy ageing.
November 2013—November 2014	Assistant Researcher at Campus Bio-Medico University of Rome in the framework of the research project HandBot—Biomechatronic prosthesis hands endowed with bioinspired tactile perception, bidirectional neural interfaces and distributed sensori-motor control. —Research program title: Experimental validation of the human sensori-motor control on an anthropomorphic arm-hand robotic system.
October 2013	Collaboration contract for research activities with the Campus Bio-Medico University of Rome in the framework of the research project NEMESIS—NEurocontrolled MEchatronic ProstheSIS. —Research program title: Development of an anthropomorphic arm-hand robotic platform for grasping and manipulation tasks with high dexterity.
June 2012—June 2013	Collaboration contract for research activities with the Department of Electric Engineering and Information Technologies of the University of Naples Federico II for the National Project PRIN ROCOCO—COoperative and COllaborative RObotics. —Research program title: Control of Human-Robot physical interaction.
March—September 2008	Collaboration contract with the Department of Computer Science and Automation of the University of Naples Federico II for the European Project DEXMART (DEXterous and autonomous dual-arm/hand robotic manipulation with sMART sensory-motor skills: A bridge from natural to artificial cognition)

Foreign experiences

From January to July 2011, Francesca Cordella was a visiting student at the Institut für Robotik und Mechatronik, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Wessling, Germany, where she developed expertise in vision-based human motion analysis.

During her post-doc, she carried out research stays at the Cedar Foundation, Belfast, UK, from 4 to 24 March 2018, and at Universidad Miguel Hernández de Elche, Spain, from 7 to 20 December 2016. These stays focused on the development of control algorithms and communication frameworks for assistive robotic platforms.

Educational activities

- Teacher and owner of the course "Biomechanics - Modeling and Technologies" (3rd year, BSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 6 CFU) for the academic years 2024/2026.
- Teacher and owner of the course "Biomechanics" in the framework of the PNRR Next Generation EU project (Università Campus Bio-Medico di Roma) for the academic years 2023/2025.
- Teacher and owner of the course "Human behaviour analysis and understanding for robotics" in the framework of the Department of Excellence (Università degli Studi del Sannio), 2022
- Teacher and owner of the course "Bioengineering and Biomechanics of the human motion" (2nd year, MSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 6 CFU) for the academic years 2020/2026.
- Teacher and owner of the course "Applied Biomechanics" (3rd year, BSc in Industrial Engineering, Università Campus Bio-Medico di Roma, 6 CFU) for the academic years 2019/2026.
- Teaching assistant for the course "Laboratory of Bioengineering" (3rd year, BSc in Industrial Engineering, Università Campus Bio-Medico di Roma, 6 CFU) during academic year 2019/2020.
- Teaching assistant for the course "Industrial and Medical Robotics" (1st year, MSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 15 CFU) during academic year 2019/2020.
- Teacher and owner of the course "Laboratory of Bioengineering" (3rd year, BSc in Industrial Engineering, Università Campus Bio-Medico di Roma, 6 CFU) during academic year 2018/2019.
- Teaching assistant for the course "Medical and Industrial Robotics" (1st year, MSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 15 CFU) during academic year 2017/2019.
- Teaching assistant for the course "Laboratory of Bioengineering" (3rd year, BSc in Industrial Engineering, Università Campus Bio-Medico di Roma, 6 CFU) during academic year 2017/2018.
- Teaching assistant for the course "Medical and Industrial Robotics" (1st year, MSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 15 CFU) during academic year 2016/2017.
- Teaching assistant for the course "Biomedical Robotics" (1st year, MSc in Biomedical Engineering, Università Campus Bio-Medico di Roma, 12 CFU) during academic year 2014/2016.

Student advisor

Tutor and Supervisor of:

- 16 PhD student in Bioengineering and Bioscience at Università Campus Bio-Medico di Roma (2016 – present). Currently, Francesca Cordella is supervising/co-supervising 5 PhD students on the following topics:
 - * Invasive and non-invasive peripheral nerve stimulators for sensory feed-back restoration in upper- and lower-limb amputees
 - * Encoding strategies for restoring somatic sensations in upper- and lower-limb amputees
 - * Bio-inspired control strategies and sensory system for prosthetic hands
 - * Pattern recognition strategies for motion intention reconstruction and workers' muscular fatigue estimation.
 - * Assessment of spinal mobility and compensatory movements in patients with chronic low back pain by means a multimodal evaluation platform
 - * Evaluation methods for innovative electromyographic and neural electrodes
 - * Approaches to estimate joint stiffness from electromyographic and kinematics data for prosthetic arm and leg control.
 - * Marker-based and marker-less algorithms to reconstruct arm and hand kinematics
 - * Modulation methods of Functional Electrical Stimulation for assistive robotics
 - * Methods for in-vitro muscle characterization and for biohybrid gripper development
 - * Innovative methods and technologies to retrieve motion intention in upper- and lower-limb amputees
 - * Semiautonomous Control Strategies Based on Computer Vision for prosthetic limbs
 - * Vision-based approaches for object and environment recognition for assistive purposes
 - * Extended Reality for assistive purposes
- 2 Master thesis in Biomedical Engineering at University of Naples Federico II;
- 3 Master thesis in Automation Engineering at University of Naples Federico II;
- 1 Bachelor thesis in Automation Engineering at University of Naples Federico II;
- 1 Bachelor thesis in Biomedical Engineering at University of Naples Federico II.
- 60 Master thesis in Biomedical Engineering at Università Campus Bio-Medico di Roma.
- 92 Bachelor thesis in Industrial Engineering at Università Campus Bio-Medico di Roma (2017 – present).

Institutional Responsibilities

2025 – present

Member of the Group for the Quality Assurance of Teaching (AQD) for the BSc in Biomedical Engineering of the Università Campus Bio-Medico di Roma

2023 – 2024

Member of the Group for the Quality Assurance in Research (AQR) of the Università Campus Bio-Medico di Roma

2023 – present

Member of the Scientific Board of the PhD Program in “Bioengineering, Applied sciences and Intelligent systems” of the Università Campus Bio-Medico di Roma

2023 – present	Member of the Scientific Board of the National PhD Program in Robotics and Intelligent Machines
2023 – present	Member of the Board for the student admission to Degree Courses of Università Campus Bio-Medico di Roma
2019 – present	Coordinator of the Tutorship for the Master degree course in Biomedical Engineering, Università Campus Bio-Medico di Roma
2019 – present	Member of the Faculty Board of Engineering, Università Campus Bio-Medico di Roma
2013 – 2024	Personal Tutor, Università Campus Bio-Medico di Roma

Research interests

The Francesca Cordella's research activities lie at the intersection of biomechanics, robotics and neuroscience. The study of the human biomechanics and of the human sensory-motor and nervous systems aimed at proposing new approaches to improve human behaviour reconstruction and evaluation, bio-inspired control strategies for robotic systems, and innovative methods for restoring the bidirectional communication between the assistive technology and the peripheral nervous system. The research outcomes have been used to guide rehabilitation treatments, robotic device development and control and to propose new assistive technologies, with the common final objective of improving the quality of life of the individuals. During the PhD, the Francesca Cordella's research activities were focused on the development of new protocols and algorithms for reconstructing the human hand kinematics, by means of marker-based and marker-less vision systems. The obtained results were used to develop human-like grasping algorithms for robotic hands. Over the years, this knowledge has significantly expanded, and Francesca Cordella started dealing with i) multimodal interfaces, to retrieve the whole state (i.e. biomechanical, physiological, psychophysiological) of the human being during the interaction with robotic devices, ii) adaptive control strategies, iii) artificial intelligence and iv) robot trajectory planning. The analysis of the human behavior allowed following a user-centred approach during the use of technologies for assistance and rehabilitation: the technology behaviour varies according to the user specific needs and intentions. The Francesca Cordella's expertise and research experience is highly interdisciplinary and strongly benefited from the opportunity of working in the context of several National and International projects (also with the role of scientific responsible). She took advantage from the close interaction with neuroscientists, medical doctors, stakeholders to understand the real needs of the final users of the assistive technologies. Finally, the understanding of the neural basis of perception and motor control was fundamental to contribute to the development of approaches and techniques (both invasive and non-invasive) for sensory feedback and motion restoration in the fields of prosthetics and rehabilitation.

The Francesca Cordella's research interests are mainly related to assistive robotics, rehabilitation robotics and prosthetics, with special reference to biomechanics and biomedical robotics. Her main expertise is concerned with:

- Biomechanical analysis of the human being by means of several motion analysis systems (wearable and not wearable) and development of performance evaluation systems;
- Kinematic protocols for analyzing the performance of human/prosthetic hands.
- Instrumented platforms for the evaluation of human and prosthetic hands and of rehabilitation treatments;
- Vision-based strategies for motion reconstruction and human-robot interaction;
- Human-machine multimodal interfaces for assistive and rehabilitation robotics;
- Adaptive control strategies for collaborative robotics, mainly focused on the assistive and rehabilitation robotics;
- Bio-cooperative systems for upper limb rehabilitation;
- Bio-inspired grasping algorithms with reduced computational cost for anthropomorphic arm-hand robotic/prosthetic systems;

Participation to national and international research project

- Human-robot interaction modeling for the control of assistive and collaborative robots;
- Invasive and non-invasive approaches for sensory feedback restoration;
- Closed-loop Functional electrical stimulation for motor recovery;
- Closed loop interfaces for the bidirectional communication with the nervous system.

December 2023–present: **NoProblem** – Nocicezione e propriocezione per il monitoraggio efficace degli arti robotici (Project funded by INAIL).

- Role in the project: WP leader for the development of encoding strategies to restore pain sensations in upper-limb amputees via transcutaneous electrical stimulation

December 2023–present: **3Daid++** – Protesi di mano e ausili robotici esoscheletrici a basso costo per bambini e adulti (Project funded by INAIL).

- Role in the project: WP leader for the development of marker-based and marker-less protocols for the kinematic reconstruction of adults and children hands. She works also in the definition of specifications for the design of prosthetic hands.

December 2023–present: **BioArmNext** – Esoscheletro portatile per la riabilitazione e l'assistenza del paziente plesso-leso (Project funded by INAIL).

- Role in the project: WP leader for the development of innovative closed-loop functional electrical stimulation strategies for assistive robotics.

December 2023–present: **BioInterNect** – Interfacce bioniche bidirezionali multi-modali (Project funded by INAIL).

- Role in the project: WP leader for the development of decoding and encoding strategies for upper-limb prosthesis and of stimulation devices for interfacing with the peripheral nervous system.

December 2022 – present: **FIT4MEDROB** – Fit for Medical Robotics (PNC Project funded by the Italian Ministry of University and Research)

- Role in the project: Activity responsible. Francesca Cordella is working on several Match Making (on the hand rehabilitation of post-stroke subjects, on the evaluation of encoding strategies for restoring somatic sensations and of decoding algorithms for recognizing motion intention for upper-limb prosthesis users, on sensory feedback restoration in lower-limb amputees) and on the subproject Implant, where upper-joint stiffness is retrieved from muscular activities to control a prosthesis wrist and elbow joints

July 2022 – present: **Rome Technopole** – Innovation Ecosystem (PNRR Project funded by the Italian Ministry of University and Research)

- Role in the project: Activity responsible. Francesca Cordella is responsible of the open lab on Rehabilitation and Assistive Robotics

January 2022–January 2025: **SPINE 4.0** – Sviluppo di un approccio innovativo, multidisciplinare ed integrato per i lavoratori affetti da patologie degenerative del rachide lombare basato su tecnologie avanzate, capacity building ed analisi di fattibilità per la creazione di un centro di riferimento per la prevenzione, diagnosi, trattamento e reinserimento lavorativo” (Bando BRIC 2021).

- Role in the project: Task leader for the development and validation of a multi-modal platform for the assessment of the spine mobility.

December 2020–June 2024: **WiFi-MyoHand** – Sistema impiantabile ottimizzato per l'interfacciamento con il sistema nervoso periferico e il controllo della protesi di arto superiore (Project funded by INAIL).

- Role in the project: Scientific co-coordinator and project manager. Francesca Cordella contributed in writing the project proposal. She contributed in the development of the systems and strategies of a closed-loop prosthetic hand

December 2020–June 2024: **ReGiveMeFive** – Esplorazione di nuove frontiere in chirurgia protesica (Project funded by INAIL).

- Role in the project: WP responsible. Francesca Cordella was responsible for the muscular evaluation of the subjects that underwent bionic surgery and for the development of the prosthesis control system and of the integration.

November 2020–June 2024: **BioArm** – Esoscheletro portatile per la riabilitazione e l'assistenza del paziente plesso-leso.

- Role in the project: Work package co-responsible. Francesca Cordella was responsible for the development of hybrid closed-loop functional electrical stimulation for assistive robotics.

September 2020–February 2025: **SOMA** – Ultrasound peripheral interface and in-vitro model of human somatosensory system and muscles for motor decoding and restoration of somatic sensations in amputees (European project H2020-FETOPEN-2018-2019-2020-01).

- Role in the project: Principal investigator for the UCBM partner. Francesca Cordella is responsible for the activities on the development of hand prosthesis sensorization and control, of the systems and strategies for motor decoding and restoration of somatic sensations in upper-limb amputees

June 2020–December 2024: **3D-aid** – Low cost prosthetic hands and exoskeletons (Project funded by INAIL).

- Role in the project: Work package responsible. Francesca Cordella contributed in writing the project proposal. She was responsible for the analysis of human hand kinematics for the design of hand prosthesis

July 2018–December 2022: **ANIA** – Development of bionic upper limb prostheses with personalized interface and sensory feedback for severely injured patients with amputation due to road accident (Project funded by ANIA Foundation - Associazione Nazionale per le Imprese Assicuratrici)

- Role in the project: Scientific co-coordinator. Francesca Cordella contributed in writing the project proposal. She was responsible for developing the multimodal interface for the control of the assistive devices and the strategies for restoring sensory feedback in upper and lower limb amputees

April 2019–October 2021: **SAFE-MOVER** – User-centred design of a robotic device for improving working conditions and user subjective perspective during patient-handling movements (Bando University Strategic Projects, Topic: Healthcare 4.0).

- Role in the project: Scientific co-coordinator. Francesca Cordella contributed in writing the project proposal. She was responsible for the biomechanical and psychophysiological analysis of the users (i.e. patients and caregivers) during the patient-handling task performed with different technologies and for the development of an innovative robotic patient mover

May 2019–October 2021: **SENSE-RISC** – Development of instrumented suits for prevention and mitigation of workers' safety risks (Project funded by INAIL).

- Role in the project: Task co-responsible. Francesca Cordella contributed in the development of the approach for workers' risk estimation and prevention

April 2019–January 2021: **EXPERIENCE** – Benchmarking Exoskeleton-Assisted Gait Based on Users' Subjective Perspective and Experience (Open Call of the EU-funded project EUROBENCH - H2020-ICT-2016-2017-779963).

- Role in the project: Task responsible. Francesca Cordella contributed in writing the project proposal. She worked in the development of a strategy to assess the psychophysiological state of exoskeleton users

September 2018–December 2021: **ARONA** – Surgical navigation assisted by advanced robotics. (Project MIUR PON Research and Innovation 2014 – 2020).

- Role in the project: Work package co-responsible. Francesca Cordella contributed in writing the project proposal. She worked on the human-robot interaction modeling during the execution of robot-mediated surgical operations, on the development of human-robot shared control strategies and on the biomechanical analysis of the surgeons

July 2018–December 2020: **PPR AS 1/3** – Evolution of an implantable system for the control of upper limb prosthesis with invasive neural interfaces, with wireless communication (Project funded by INAIL)

- Role in the project: Scientific co-coordinator and project manager. Francesca Cordella was responsible for the development and evaluation of the systems and strategies composing the closed-loop hand prosthesis

May 2018–December 2020: **PCR 1/2** – New methods in the treatment of limb amputation, finalized to the application of bionic prostheses (Project funded by INAIL).

- Role in the project: Work package co-responsible. Francesca Cordella worked on the development of decoding strategies for recognizing motion intention and on the biomechanical evaluation of upper-limb amputees

January 2018–March 2019: **SIRASI** – Robotic system for upper and lower limb rehabilitation. (Bando INTESE).

- Role in the project: Research and Development. Francesca Cordella collaborated in the development of the control strategy of a robotic manipulator for lower-limb rehabilitation

June 2017–December 2019: **RehabRobo@Work** – Bio-cooperative robotic system for upper-limb rehabilitation in working environments. (Project funded by INAIL).

- Role in the project: Project Manager and work package responsible. Francesca Cordella contributed in writing the project proposal. She worked on the design of a modular architecture for the multimodal interface and on the development of the robot control strategy

February 2015–July 2018: **AIDE** – Adaptive Multimodal Interfaces to Assist Disabled People in Daily Activities (European Project H2020).

- Role in the project: Task responsible. Francesca Cordella worked on the development and evaluation of user interfaces easily adaptable to subjects with different levels of disability in the framework of assistive robotics

May 2014–June 2017: **PPR2** – Control of upper limb prostheses with invasive neural interfaces. (Project funded by INAIL).

- Role in the project: Tasks responsible. Francesca Cordella contributed in writing the project proposal. She contributed in the definition of the requirements and characteristics of a prosthetic system, in the biomechanical analysis of the grasping action, in the design and development of a low-level control strategy for the prosthetic hand

November 2013–November 2014: **HandBot** – Protesi di mano biomeccatroniche dotate di percezione tattile bioispirata, interfacce neurali bi-direzionali e controllo sensori-motorio distribuito (National Project PRIN).

- Role in the project: Research and Development as Post Doc Francesca Cordella worked in the development, implementation and experimental validation of a grasp synthesis algorithm for an anthropomorphic robotic arm-hand system in a low dimensional posture subspace

June 2012 – June 2013: **ROCOCÒ** – COoperative and COllaborative RObotics (National Project PRIN).

- Role in the project: Research and Development as Post Doc. Francesca Cordella worked on the development of vision-based strategies for arm-hand pose estimation for safe human-robot interaction and robot-aided rehabilitation.

March 2008 – December 2012: **DEXMART project** – DEXterous and autonomous dual-arm/hand robotic manipulation with sMART sensory-motor skills: A bridge from natural to artificial cognition (European research project EU FP7)

- Role in the project: Research and Development as PhD student. Francesca Cordella worked on the development of bio-inspired grasping algorithms for anthropomorphic robotic hands.

Awards

- Third place at the 2017 IEEE Robotics and Automation video contest - Italian Chapter with the video entitled “Playing piano by demonstration”. Authors: C. Lauretti, F. Cordella, D. Simonetti
- Winner of the Premio Qualità 2020, Campus Bio-Medico University of Rome with a project on the improvement in the field of quality and clinical risk. Authors: C. Tamantini, F. Scotto di Luzio, F. Cordella, G. Pascarella, F. Agró, L. Zollo
- Supervisor of the three following award-winning MSc theses, all recipients of the GNB (National Group of Bioengineering) Award for the Best Master Thesis in Bioengineering:
 - 2024 — A Semiautonomous control strategy for a hand-wrist prosthesis based on computer vision
 - 2025 — Dynamic Functional Electrical Stimulation parameter modulation to restore terrain-specific gait cycle
 - 2026 - Approaches to define a reduced marker-set for the kinematic analysis of the hand

Commission of Trust

June 2024 – present	Co-chair of the IEEE RAS Technical Committee on Rehabilitation and Assistive Robotics
2025 – present	Expert Reviewer of European Projects Horizon H2020 for the European Commission
2023 – present	Member of Evaluation Board for “IEEE RAS Italian Chapter “Fabrizio Flacco” Young Author Best Paper Award”
2020 – present	Doctoral Thesis Jury Member: 1 PhD thesis in Industrial and Telecommunications Technologies, Universidad Miguel Hernandez de Elche (Spain); 2 PhD thesis in Biorobotics, Scuola Superiore Sant’Anna (Italy); 1 Ph.D. degree of the University of Malta;

2019 – 2026	Member of the Evaluation Board for the Best MSc and PhD Thesis Award from the Gruppo Nazionale di Bioingegneria
2021	Member of the Evaluation Board for the Discovery Grant Program for the Natural Sciences and Engineering Research Council of Canada (NSERC)
2021	External Reviewer for the VQR 2015-2019
2020	Member of the Evaluation Board for the Erwin Schroedinger Fellowship for the Austrian Science Fund (FWF)
2018	Member of the Evaluation Board for the Best Thesis Award of the 2018 French Robotic Research Network (CNRS)
2017	Member of the Evaluation Board for the Best Thesis Award of GDR Robotique
March 2017	Expert Reviewer of European Projects Horizon H2020 for the European Commission in the framework of Personalised coaching for well-being and care of people as they age.
June 2015	Expert Reviewer of European Projects Horizon H2020 for the European Commission in the framework of ICT for active and healthy ageing.
Invited talks	
10 October 2025	"I robot umanoidi nell'assistenza alle persone: vantaggi e limiti della somiglianza" in the framework of the Conference "Care robot umanoidi per la cura"
26 September 2025	"Bio-cooperative Interaction: the robot that online adapts to the patient" in the framework of the SIMFER course "Le innovazioni tecnologiche e l'intelligenza artificiale al servizio della riabilitazione: a che punto siamo?"
28 March 2025	"Multimodal platform for spine monitoring and assessment" in the framework of the "Musculoskeletal International Symposium", Università Campus Bio-Medico di Roma
28 March 2025	"Kinematic analysis of the human hand" in the framework of "Corso Avanzato di Analisi del Movimento in Clinica Riabilitativa", organized by MARLab: Movement Analysis and Robotics Laboratory - Ospedale Pediatrico Bambino Gesù
20 October 2023	"Sensory feedback in closed-loop devices" in the framework of the workshop "Ongoing research on motion control and sensory feedback restoration in bionics" of the 5th Italian Conference of Robotics and Intelligent Machines
21 October 2023	"The role of perception in healthcare robotics" in the framework of the workshop "Perception Unleashed: Achieving Safety, Efficiency, and Awareness in Human-Robot Collaboration" of the 5th Italian Conference of Robotics and Intelligent Machines
22 March 2023	"The centrality of the person in biomedical technologies" in the framework of the workshop "Robotics between engineering and medicine", Università Campus Bio-Medico di Roma
7 December 2022	"The SOMA project" in the framework of the MedTech event - Building Synergies across the Medtech Projects in the margins of the EIC Summit 2022
6 September 2022	"User-centred rehabilitation and assistive robotics" University College London, London, UK
10 October 2022	"Feedback strategies in working and assistive environments" R4-Robotique
16 September 2021	"Human-Robot shared control in biomedical applications" in the framework of the conference "BioTechMeet2021 – International meet on Biotechnology and Bioengineering", Porto, Portugal
22 April 2021	"Nuove frontiere della robotica in campo medico", in the framework of the event "gURLSs! Who codes the world?"
25 October 2020	Human-Robot shared control in surgical and assistive applications, Workshop "Autonomous System in Medicine: Current Challenges in Design, Modeling, Perception, Control and Applications" in the framework of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).
30 October 2020	"Indici strumentali robotici", Corso FAD SIAMOC - La robotica riabilitativa: le sfide per un trattamento personalizzato

7 February 2020	The Safe-Mover Project: a user-centred approach, PhD Course "Personalized Medicine and Healthcare 4.0", Campus Bio-Medico University of Rome.
29 November 2019	Nuove frontiere della robotica in campo medico, Conference "Ordine Ingegneri Sapienza", Rome.
19 October 2019	Multimodal interfaces for upper-limb rehabilitation robotics: A bio-cooperative approach, Workshop "Robotics in rehabilitation: main challenges for a tailored treatment", Convegno Istituto di Robotica e Macchine Intelligenti, Rome.
9 March 2019	Robotic technologies for biomedical applications, Conference "Politica Sanitaria e Tecnologia", Potenza.
14 December 2018	New approaches for the rehabilitation of the working gesture, Training course "Adeguamento e adattamento delle postazioni di lavoro per il reinserimento di persone con disabilità da lavoro", Rome
30 November 2018	Robotic technologies for biomedical applications, Conference "Medicina e salute: robotica in medicina", Rome.
2017	Assistive technologies, National Conference Scienza & Vita, Rome.
2007	Simulators for laparoscopic surgery – State of the art, Internal Seminar – Città della scienza, Naples

Main Collaborations

Proff: N. Garcia Aracil (UMH, Spain) and S.R. Soekadar (Clinical Neurotechnology Lab, Charité - Berlin, Germany) on interfaces and neurorobotics for human-robot interaction; M. Johnson (University of Pennsylvania, PA, USA) on analysis of human behavior for robot control; J.M. Sabater Navarro (UMH, Spain) on Machine Learning for HR analysis; N. Vitiello (SSSA, Italy) on upper limb exoskeletons; C. Cipriani (SSSA, Italy) on upper-limb prostheses; M. Laffranchi (IIT, Italy) on sensory feedback for upper-limb prosthetics; I. Aprile (Fondazione Don Gnocchi, Italy) on sensory feedback restoration in lower-limb amputees and on sensory re-education in post-stroke subjects; X. Navarro (UAB, Spain) and A. Schneider (IBMT, Germany) on interfaces with the peripheral nervous systems for sensory feedback restoration; M. Barbaro (UNICA, Italy) on electrical stimulators and electrodes for sensory feedback and motion intention recognition; G. Loianno (UC Berkeley, USA) on vision-based approaches for human pose estimation for drone teleoperation; D. Farina (IC, UK) on decoding strategies for prosthesis control; C.R. Rodrigues (UFSC, Brazil) on spiking neural networks for touch and slippage detection in robotic hands; Freygardur Thortneiston (Ossur, Iceland) on sensorization and closed-loop control strategies for limb prosthetics; Massimo Sartori (University of Twente, Netherlands) on neuromuscular modeling to predict limb joint stiffness; Mariachiara Caschera (CNR, Italy) on user needs analysis for assistive technologies; Paolo Netti (UNINA, Italy) on in-vitro modeling of the human sensory system; Emanuele Gruppioni (INAIL, Italy) on limb prosthetics; Andrea Orlandini (CNR, Italy) on adaptive coaching; Tetsuoyu Watanabe (Kanazawa University, Japan) on assistive robotics.

Personal skills and competences

Programming in:

- C
- C++
- Matlab and Simulink
- Assembly (Motorola 68x family)
- Basic knowledge of SQL
- Comsol Multiphysics
- Solidworks
- OpenCV
- Libfreenect
- OpenNI
- Robot Operating System (ROS)
- Yet Another Robotic Platform (YARP)
- NAOqi e Choreographe (Software for working with the NAO-Aldebaran robot)
- Fast Research Interface (Library for controlling the Light Weight Robot-KUKA)
- SW for the management of motion analysis systems: Vicon Nexus, Vicon IQ, SMART for BTS

Conference, PhD School and Workshop Organizer

23-25 October 2026	General Chair of the 7th edition of the Conference on Robotics and Intelligent Machines (I-RIM 3D), Rome, Italy
17-18 December 2026	Member of the Organizing Committee of the 3rd International Conference and Forum on Assistive Technologies for Special Needs – ATSN'26, Université Évry Paris-Saclay Campus, France
24-31 August 2025	Member of the Organizing Committee of the PhD summer School on Robotics and Intelligent Machines (3rd Edition) - DRIMS2, Genova, Italy
5-11 September 2024	Member of the Organizing Committee of the PhD summer School on Robotics and Intelligent Machines (2nd Edition) - DRIMS2, Volterra, Italy
9-12 October 2024	Member of the Local Organizing Committee and Worskhop Chair for the 6th Conference on Robotics and Intelligent Machines (I-RIM3D), Rome, Italy
8-10 October 2021	Member of the Organizing Committee for the 3rd Conference on Robotics and Intelligent Machines (I-RIM3D), Rome, Italy
14-18 June 2021	Workshop Chair of the Seasonal School on Rehabilitation and Assistive Technologies based on Soft Robotics (SoftTech-Rehab), online
27 September 2026	Organizer of the Workshop "Out of the Lab: Personalization and Long-Term Use in Rehabilitation and Assistive Robotics", in the framework of the IEEE/RSJ International Conference on Intelligent Robots & Systems (IROS), Pittsburgh, PA, USA
1 August 2026	Organizer of the Workshop "MedRob: Foundations of Health Data for Robotics", in the framework of the 11th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob), Edmonton, AB, Canada
18 October 2025	Organizer of the Workshop "Prosthetic limbs: from mechanical design to closed-loop control", in the framework of the 7th Conference on Robotics and Intelligent Machines (I-RIM3D), Rome, Italy
8-10 September 2025	Organizer of the Mini-Symposium "Computational models in rehabilitation robotics and bionics", Rome, Italy

11 October 2024	Organizer of the Workshop "Bringing Robotics in Ph.D. Summer Schools – Offer and approaches", in the framework of the 6th Conference on Robotics and Intelligent Machines (I-RIM3D), Rome, Italy
October 2023	Organizer of the Workshop "Ongoing research on motion control and sensory feedback restoration in bionics", in the framework of the 5th Conference on Robotics and Intelligent Machines (I-RIM3D), Rome, Italy
May 2022	Organizer of the Workshop "Human-in-the loop paradigm for assistive robotics", in the framework of the IEEE International Conference on Robotics and Automation, Philadelphia, USA, May 2022
13 November 2021	Organizer of the Workshop "ASIMOV - Adaptive Social Interaction and MOVement for assistive and rehabilitation robotics" in the framework of the 13th International Conference on Social Robotics, Singapore
4 September 2020	Organizer of the 4th Workshop on "Behavior Adaptation, Interaction and Learning for Assistive Robotics – BAILAR" in the framework of 29th IEEE International Conference on Robot and Human Interactive Communication, Naples
10 December 2020	Organizer of the Workshop "Two decades of rehabilitation and assistive robotics: lessons learned and future challenges" in the framework of the 2nd Conference on Robotics and Intelligent Machines I-RIM 2020
26 August 2018	Organizer of the Workshop "Assistive user interfaces and control strategies for adaptive human-robot interaction" in the framework of the 7th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics, Enschede

Journal and Conference service

Scientific Committee Member

- IX National Congress of Bioengineering, 16–18 June 2025, Palermo, Italy
- XI International Conference on Computational Bioengineering (ICCB), 8-10 September 2025, Rome, Italy
- VIII National Congress of Bioengineering, 21–23 June 2023, Padua, Italy

- "Electrical Stimulation of Muscle: Electrophysiology and Rehabilitation" for the Journal Medicina, 2026 (Guest Editors: Francesca Cordella, Andrea Demofonti)
- "Affordable Cyber-Robotic Systems for Healthcare 5.0" for the Journal Frontiers in Robotics and AI, 2026 (Guest Editors: Chung Hao Chen, Wen-Chao Yang, Francesca Cordella)
- "Innovation in Prosthetic Solutions: Bridging Neuroscience and Engineering for Next-Generation Prosthetic Systems" for the Journal Prosthesis, 2024 (Guest Editors: Cosimo Gentile, Francesca Cordella, Emanuele Gruppioni)
- "Human-Centered Artificial Intelligence in Interaction Processes" for the Journal Frontiers in Artificial Intelligence, 2024 (Topic Editors: Maria Chiara Caschera, Patrizia Grifoni, Francesca Cordella)
- "Recent Advances in Medical Robotics" for the Journal Machines, 2024 (Guest Editors: Clemente Lauretti, Alessia Noccaro, Francesca Cordella)
- "Human-in-the-Loop Paradigm for Assistive Robotics" for the Journal Frontiers in Robotics and AI, 2024 (Guest Editors: Francesca Cordella, Dario Farina, Loredana Zollo)
- "Research Advances in Rehabilitation and Exoskeleton Robotics" for the Journal Bioengineering, 2024 (Guest Editors: Nicolas Garcia-Aracil, Andrea Blanco, Josè Maria Catalàn, Francesca Cordella)
- "Challenges and Future Trends of Wearable Robotics - Volume II" for the Journal "Sensors", 2023 (Guest Editors: Francesca Cordella, Emilio Trigili, Jan Babic)
- "Challenges and Future Trends of Wearable Robotics" for the Journal "Sensors", 2022 (Guest Editors: Francesca Cordella, Emilio Trigili, Jan Babic)
- "Neurorobotics and strategies for adaptive human-machine interaction – Volume II" for the Journal "Frontiers in Neurorobotics", 2022 (Guest Editors: Francesca Cordella, Surjo Soekadar, Loredana Zollo)
- "Neurorobotics and strategies for adaptive human-machine interaction" for the Journal "Frontiers in Neurorobotics", 2020 (Guest Editors: Francesca Cordella, Surjo Soekadar, Loredana Zollo)
- "Analysis of Human Behavior for Robot Design and Control" for the Journal "Applied Bionics and Biomechanics", 2019 (Guest Editors: Francesca Cordella, Michelle Johnson, Loredana Zollo)

- Committee Member for the session "Prosthetic Devices" in the framework of the 2nd International Online Conference on Prosthesis (9-11 December 2026).
- Workshop on Advanced AI Methods and Interfaces for Human-Centered Assistive and Rehabilitation Robotics (a Fit4MedRob event) in the framework of AIxIA 2024, Bolzano, 25-28 November 2024.
- 5th International Electronics Communication Conference, Osaka, Japan, 2023
- 3rd International Electronics Communication Conference (IECC), Ho Chi Minh City, Vietnam, 2021.
- International Conference on Electronics, Communications and Control Engineering, Seoul, 2021
- International Conference on Electronics, Communications and Control Engineering, Bali, 2020
- International Conference on Service Robotics Technologies, Singapur, 2020
- 12th International Workshop on Human Friendly Robotics, Reggio Emilia (Italy), 2019
- International Conference on Electronics, Communications and Control Engineering, Phuket, 2019
- International Conference on Service Robotics Technologies (ICSRT), Beijing (China), 2019
- International Conference on Service Robotics Technologies (ICSRT), Chengdu (China), 2018
- International Conference on Electronics, Communications and Control Engineering, Maldives, 2018
- 5th Int. Workshop on Assistive Computer Vision and Robotics, Venice (Italy), 2017
- 1st Int. Workshop on Behaviors Adaptation, Interaction and Learning for Assistive Robotics, New York City (USA), 2016
- 4th Int. Workshop on Assistive Computer Vision and Robotics, Amsterdam (The Netherlands), 2016
- 3rd Int. Workshop on Assistive Computer Vision and Robotics, Chile, 2015
- 2nd Int. Workshop on Assistive Computer Vision and Robotics, Zurich, 2014

- Associate Editor for IEEE International Conference on Robotics and Automation (ICRA) 2027, Coex (Seoul)
- Associate Editor for IEEE International Conference on Robotics and Automation (ICRA) 2026, Vienna (Austria)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2026, Kitakyushu (Japan)
- Associate Editor for IEEE International Conference on Robotics and Automation (ICRA) 2025, Atlanta (USA)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2025, Endhoven (the Netherlands)
- Associate Editor for IEEE International Conference on Rehabilitation Robotics (ICORR) 2025, Chicago (USA)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2024, Pasadena (USA)
- Associate Editor for IEEE International Conference on Robotics and Automation (ICRA) 2024, Yokohama (Japan)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2023, Busan (Korea)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2022, Naples (Italy)
- Associate Editor for IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2021, virtual event
- Associate Editor for IEEE RAS/EMBS International Conference for Biomedical Robotics and Biomechatronics (BioRob) 2020, New York (USA)
- Associate Editor for IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2020, Las Vegas (USA)
- Associate Editor for the journal Journal of Biomedical Science & Applications, 2017 — 2019
- Associate Editor for the journal Applied Bionics and Biomechanics, 2020 - present
- Associate Editor for the journal Frontiers in Robotics and AI, 2026 - present

Speaker in Conference sessions

- May, 2022 — IEEE International Conference on Robotics and Automation, Philadelphia, USA;
- August, 2018 — IEEE International Conference on Biomedical Robotics and Biomechatronics, Enschede, The Netherlands;
- June, 2018 — V Congresso Gruppo Nazionale di Bioingegneria, Milan;
- July, 2017 — IEEE International Conference on Rehabilitation Robotics, London;
- June, 2016 — IEEE International Conference on Robotics and Automation, Stockholm;
- June, 2016 — V Congresso Gruppo Nazionale di Bioingegneria, Naples;
- August 2014 — IEEE International Conference on Biomedical Robotics and Biomechatronics, Sao Paulo, Brasil;
- June, 2014 — IV Congresso Gruppo Nazionale di Bioingegneria, Pavia;
- June 2012 — IEEE International Conference on Biomedical Robotics and Biomechatronics, Rome;
- October 2010 — ViRtual environments and prototyping for huMAN health and safety, special track of 9th International Conference IDMME – Virtual Concept, Bordeaux, France;
- October 2010 — 1th International Conference on Applied Bionics and Biomechanics, Venice.

Reviewer for International Journals

IEEE Transactions on Biomedical Engineering, IEEE Access, IEEE Transactions on Systems, Man and Cybernetics, Part B; IEEE Robotics and Automation Magazine; IEEE Transactions on measurements; IEEE Transactions on Cybernetics; International Journal of Advanced Robotic Systems; Journal of Intelligent and Robotic Systems; IEEE Robotics and Automation Letters; Pattern Recognition Letters; Applied Bionics and Biomechanics; Journal of Medical Robotics Research; Medical Engineering & Physics; Robotics and Computer Integrated Manufacturing; Journal of Medical and Biological Engineering; Journal of Motor Behavior; PlosOne; Journal of Healthcare Engineering; IEEE Transactions on Human-Machine Systems; Sensors; IEEE Sensors Journal; Frontiers in Neurorobotics; Humanoids; Journal of Engineering in medicine; Journal of Healthcare Engineering; Journal of Medical Robotics Research; IEEE Transactions on Automation Science and Engineering; Artificial Organs; Bio-cybernetics and Biomedical Engineering; Disability and Rehabilitation; Frontiers in Robotics and Artificial Intelligence; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Medical Robotics and Bionics; Neurorehabilitation and Neural Repair

Reviewer for International Conferences

IEEE International Conference on Biomedical Robotics and Biomechatronics; International Conference of the IEEE Engineering in Medicine and Biology Society; IEEE International Conference on Robotics and Automation; IEEE International Symposium on Robot and Human Interactive Communication; IEEE International Conference on Automation Science and Engineering; IEEE/RAS-EMBS International Conference on Rehabilitation Robotics; IEEE/RSJ International Conference on Intelligent Robots and Systems; International Conference on Informatics in Control, Automation and Robotics; IFAC Symposium on Robot Control; Congress of the International Federation of Automatic Control; International Symposium Measurement of Electrical Quantities; International Workshop on Assistive Computer Vision and Robotics; International Workshop on Behaviors Adaptation, Interaction and Learning for Assistive Robotics, International Conference on Service Robotics Technologies, International Conference on Electronics, Communications and Control Engineering; IEEE International Symposium on Medical Robotics

Member of Scientific societies

Mother tongue

Other language

Self-assessment
European level^(*)

English

Publications

International Journal Papers

[J86]

[J85]

[J84]

[J83]

[J82]

[J81]

[J80]

[J79]

[J78]

[J77]

[J76]

Francesca Cordella is associated with several scientific societies, where she holds distinctive roles:

Chair of the IEEE Robotics and Automation Society Technical Committee on Rehabilitation and Assistive Robotics.

Senior Member of IEEE – Institute of Electrical and Electronics Engineers, since 2025; IEEE member since 2008.

Member of the IEEE Robotics and Automation Society, since 2008.

Founding Member of GNB – National Group of Bioengineering.

Founding Member of I-RIM – Istituto di Robotica e Macchine Intelligenti.

Founding Member of ICORR – International Consortium on Rehabilitation Robotics.

Member of SIAMOC – Società Italiana di Analisi del Movimento in Clinica.

Italian

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

^(*) Common European Framework of Reference (CEF) level

A. Ceccarelli, L. Nini, S.M. Li Gioi, L. Tontini, M. Lapresa, I. Cardiello, F. Bressi, E. Gruppioni, F. Cordella, N.L. Tagliamonte, L. Zollo, F. Taffon, "Parametric Design of the Bioinspired and Customizable 3D-AID Hand Prosthesis", Results in Engineering, 2026

R. Morfino, C. Lauretti, F. Cordella, L. Zollo, "Teleoperated Robot-Assisted Pedicle Tapping: A Hybrid Position–Force Control Approach", IEEE Access, 2026

R. Billardello, C. Tamantini, S.M. Li Gioi, F. Cordella, F. Scotto Di Luzio, G.F. Papalia, G. Maltese, F. Russo, G. Vadalà, L. Zollo, "Multimodal Assessment of Back Performance Scale Tasks in Low Back Pain and Healthy Subjects", IEEE Sensors Journal, 2026

E. Stefanelli, A. Mohammadi, C. Wang, T. Yu, Y. Tan, P. Choong, F. Cordella, L. Zollo, D. Oetomo, "Simultaneous Recognition of Hand Gestures, Grasping Force, and Hand Aperture Using a Wearable Displacement Myography System", IEEE Sensors Journal, 2026

G. Cirelli, E. Stefanelli, R. Billardello, C. Tamantini, S. Leonelli, L. Zollo, L.P. Cordella, F. Cordella, "Context [U+2010]Aware Semiautonomous Control for Upper [U+2010]Limb Prostheses", Advanced Intelligent Systems, 2026

F. Cordella, D. Farina, L. Zollo, "Editorial: Human-in-the-loop paradigm for assistive robotics, Frontiers in Robotics and AI, 2026

G. Cirelli, C. Tamantini, L. Zollo, F. Cordella, "Computer vision for high-level control of prosthetic limbs: A literature review", Computer Vision and Image Understanding, 2026

R. Billardello, K. Dejanovic, F. Cordella, D. D'Accolti, C. Cipriani, L. Zollo, "Hierarchical Classification of EMG Signal for Hand and Wrist Gestures and Forces in Myoelectric Control", IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2026

A. Demofonti, F. Cordella, F. Scotto di Luzio, V. Iannelli, L. Zollo, "A kinematic-and-muscular modulation strategy for FES-assisted upper limb rehabilitation: a feasibility study", Scientific Reports, 2025

S.M. Li Gioi, M. Lapresa, L. Zollo, F. Cordella, "Performance evaluation of Leap Motion Controller for hand motion assessment", IEEE Sensors Journal, 2026

A. Ceccarelli, L. Nini, S.M. Li Gioi, F. Cordella, F. Taffoni, L. Zollo, N.L. Tagliamonte, "Design, Prototyping and Testing of a Bioinspired Prosthetic Hand Finger Based on Six-Bar Linkage", Results in Engineering, 2025

- [J75] R. Molle, C. Tamantini, C. Lauretti, F. Cordella, F. Scotto di Luzio, D. Sebastiani, F. Santacaterina, M. Bravi, F. Bressi, S. Miccinilli, L. Zollo, "Exploring Priority Parameters in Physiotherapist Decision Models for Tailoring Robot-Aided Rehabilitation" *International Journal of Social Robotics*, 2025
- [J74] R. Paolini, R. Collu, L. Tullio, A. Demofonti, A. Scarpelli, F. Cordella, M. Barbaro, L. Zollo "Wearable stimulator for upper and lower limb somatotopic sensory feedback restoration", *IEEE Transactions on Biomedical Circuits and Systems*, 2025
- [J73] R. Paolini, F. Liu, A. Scarpelli, A. Demofonti, F. Cordella, D. Jiang, A. Demosthenous, L. Zollo, "A novel portable device and validation procedure for transcutaneous electrical nerve stimulation", *Wearable Technologies*, 2025
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- [J71] R. Billardello, C. Tamantini, F. Cordella, F. Scotto di Luzio, T. Varrecchia, G. Chini, F. Draicchio, A. Ranavolo, L. Zollo, "Estimating workers' physical effort during isometric contractions through sEMG: the role of feature selection", *ACM Transactions on Human-Robot Interaction*, 2025
- [J70] A. Scarpelli, F. Cordella, L. Zollo, "Encoding algorithms for somatotopic restoration of somatic sensations in the upper-limb: a systematic review", *Journal of Neural Engineering*, 2025
- [J69] M. Sperduti, N.L. Tagliamonte, F. Cordella, L. Zollo, "Design of a testbed for mechanical and thermal stimulation in somatosensory studies", *Scientific Reports*, 2025
- [J68] C. Tamantini, F. Marra, J. Di Tocco, S. Di Modica, A. Lanata, F. Cordella, M. Ferrarin, F. Rizzo, M. Stefanelli, M. Papacchini, C. Delle Site, A. Tamburrano, C. Massaroni, E. Schena, L. Zollo, M.S. Sarto, "SenseRisc: An instrumented smart shirt for risk prevention in the workplace", *Wearable Technologies*, 2025
- [J67] A. Demofonti, M. Germanotta, A. Zingaro, G. Bailo, S. Insalaco, F. Cordella, I.G. Aprile, L. Zollo, "Restoring Somatotopic Sensory Feedback in Lower Limb Amputees through Noninvasive Nerve Stimulation", *Cyborg and Bionic Systems*, 2025
- [J66] M.C. Caschera, P. Grifoni, F. Cordella, Editorial: Human-centered artificial intelligence in interaction processes, *Frontiers in Artificial Intelligence*, 2025
- [J65] M. Lapresa, C. Lauretti, F. Cordella, A. Reggimenti, L. Zollo, "Reproducing the caress gesture with an anthropomorphic robot: a feasibility study", *Bioinspiration & Biomimetics*, 2024
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- [J55] M. Sguanci, S. Mancin, M. Piredda, F. Cordella, N.L. Tagliamonte, L. Zollo, M.G. De Marinis, "Nursing-engineering interdisciplinary research: A synthesis of methodological approach to perform healthcare-technology integrated projects", *MethodsX*, 102525, 2024
- [J54] G. Cirelli, C. Tamantini, L.P. Cordella, F. Cordella, "A Semiautonomous Control Strategy Based on Computer Vision for a Hand–Wrist Prosthesis", *Robotics* 12 (6), 152, 2023
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- [J48] C. Tamantini*, F. Cordella*, C. Lauretti, F. Scotto Di Luzio, B. Campagnola, L. Cricenti, M. Bravi, F. Bressi, F. Draicchio, S. Sterzi, L. Zollo, "Tailoring upper-limb robot-aided orthopedic rehabilitation on patients' psychophysiological state", *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 2023
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- [J44] J.M. Catalán, E. Trigili, M. Nann, A. Blanco-Ivorra, C. Lauretti, F. Cordella, E. Ivorra, E. Armstrong, S. Crea, M. Alcañiz, L. Zollo, S.R. Soekadar, N. Vitiello, N. García-Aracil, "Hybrid brain/neural interface and autonomous vision-guided whole-arm exoskeleton control to perform activities of daily living (ADLs)", *Journal of NeuroEngineering and Rehabilitation*, 20, 61, 2023
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- [J30] C. Gentile, F. Cordella, L. Zollo, "Hierarchical Human-Inspired Control Strategies for Prosthetic Hands", *Sensors* 22 (7), 2521, 2022
- [J29] F. Leone, C. Gentile, F. Cordella, E. Gruppioni, E. Guglielmelli, L. Zollo, "A parallel classification strategy to simultaneous control elbow, wrist, and hand movements", *Journal of NeuroEngineering and Rehabilitation* 19 (1), 1-17, 2022
- [J28] C. Tamantini*, F. Cordella*, C. Lauretti, L. Zollo, "The WGD—A Dataset of Assembly Line Working Gestures for Ergonomic Analysis and Work-Related Injuries Prevention", *Sensors*, 2021, 21(22). DOI: 10.3390/s21227600. (*These authors contributed equally to this work)
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Trattamento Dati Personali

La sottoscritta Francesca Cordella è a conoscenza che, ai sensi dell'art.26 della legge 15/68, le dichiarazioni mendaci, le falsità negli atti e l'uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali. Inoltre, la sottoscritta, ai sensi della legge 675/96 (tutela delle persone e di altri soggetti rispetto al trattamento dei dati personali) e dell'art. 13 del D.Lgs 30 giugno 2003 n. 196, AUTORIZZA al trattamento dei dati personali contenuti nel presente curriculum.

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