

GIORGIO CARPINO, Ph.D., Biomedical Engineer

PROFILE

Biomedical engineer with strong expertise in scouting, writing, planning, management, reporting and monitoring of international, European and national research programmes and projects in public and private sectors. Extensive knowledge of technology transfer and intellectual property protection and management processes. Remarkable skills in design, integration and testing of biomedical devices and robots. Solid knowledge of clinical trials, CE mark process, and health technology assessment of biomedical devices.

PROFESSIONAL EXPERIENCE

Dec 2020 – Present – **Technologist – Stazione Zoologica Anton Dohrn (SZN) / Grant and Innovation Office (GIO)**

Technologist at the Grant and Innovation Office (GIO).

Main duties: Identification and promotion of funding opportunities, also through the identification of research competences within the Institute; Assistance to the preparation, writing and review of proposals to apply to European and international calls; Setup of tools and procedures for the correct implementation of proposals to apply to the research calls, with particular reference to the Horizon 2020 and Horizon Europe programmes; Support for the compilation of the general consultations of the European Commission on the theme of research and innovation; Support in the creation of transnational project partnerships, with particular reference to the thematic lines of technological research and support to the identification of strategic partnerships; Analysis and dissemination of information and documentation on the evolution of the European strategy with focus on research and innovation and the implementation of the new EU programme 2021-2027.

Oct 2015 – Present – **Scientific Project Manager – Italian Ministry of Universities and Research (MUR) / Directorate General for the research / Office VIII**

Scientific project manager with proven university specialization for the implementation, management and reporting of ERA-Nets, Coordination and Support Actions, Joint Programming Initiatives, Art. 185 and 187 TFEU funded within the 7th Framework Programme (2007 - 2013) and the Horizon 2020 programme (2014 - 2020).

Main duties: Assistance and support in technical, procedural, administrative, accounting tasks. National contact point for the European initiatives (listed below). Management of the procedures for granting services related to projects activities and drafting of procedural and administrative documentation. Support to the representatives of the Ministry in the meetings in Italy and abroad related to the projects. Verification of the completeness and the correctness of the supporting documentation of project costs. Assistance in projects eligibility, monitoring and reporting, in accordance with European and national laws. Preparation of periodic reports on project activities. Storage of the administrative and accounting documentation of the projects for the audit by the relevant Authorities. Monitoring and evaluation of the projects. Assistance and scientific support to the responsible of the ERA-Nets in the area of the FET Flagship projects (FLAG-ERA and QuantERA).

Projects:

- *Jan 2021 – Pres* **QuantERA II** (H2020-FETFLAG-2020-02, ERA-NET Cofund in Quantum Technologies, www.quantera.eu)
- *Nov 2019 – Pres* **MarTERA** (H2020-BG-2016-2017/H2020-BG-2016-1, Maritime and Marine Technologies for a New ERA, www.martera.eu)
- *Jul 2019 – Pres* **CHIST-ERA IV** (H2020-FETPROACT-2018-02-857925, European Coordinated Research on Long-term ICT and ICT-based Scientific and Technological Challenges, www.chistera.eu)
 - o Leader of WP4 “Follow-up and monitoring of projects resulting from the cofunded call” and of WP9 “Follow-up and monitoring of projects (all calls except Call 2019)”
- *Jan 2019 – Pres* **FLAG-ERA III** (H2020-FETFLAG-2018-2020-825207, The Flagship ERA-NET, www.flag-era.eu)
 - o Leader of Task 8.1 “Interactions with Flagship Pilots and FP9 Flagships”
- *Jan 2018 – Pres* **EN SGplusRegSys** (H2020-LCE-2016-2017-775970, A European joint programming initiative to develop integrated, regional, smart energy systems enabling regions and local communities to realize their

- high sustainable energy ambitions, www.eranet-smartenergysystems.eu)
- Dec 2017 – Pres **CHIST-ERA III** (H2020-FETPROACT-2016-2017-768977, European coordinated research on long-term ICT and ICT-based scientific challenges, www.chistera.eu)
 - o Leader of WP4 “Call 2017 project follow-up and monitoring” and of WP9 “Project follow-up and monitoring (for projects from all calls except Call 2017)”
 - Dec 2016 – Pres **ERA CoBioTech** (H2020-NMBP-ERA-NET-2016-722361, Cofund on Biotechnologies, www.cobiotech.eu)
 - Dec 2016 – Pres **FLAG-ERA II** (H2020-FETFLAG-01-2016- 730027, The Flagship ERA-Net, www.flag-era.eu)
 - o Leader of WP8 “JTC 2016 project follow-up and monitoring”
 - Nov 2016 – Pres **QuantERA** (H2020-FETPROACT-2016-731473, ERA-NET Cofund in Quantum Technologies, www.quantera.eu)
 - Oct 2015 – Nov 2017 **CHIST-ERA II** (FP7-ICT-2011.9.12-287654, European Coordinated Research on Long-term Challenges in Information and Communication Sciences & Technologies ERA-NET, www.chistera.eu)
 - o Leader of Task 5.2 “Projects monitoring”
 - Oct 2015 – Nov 2016 **FLAG-ERA** (FP7-ICT-2013.9.9-619318, The Flagship ERA-Net, www.flag-era.eu)
 - o Co-leader of WP6 “Thematic activities for the four non-selected Pilots”

Appointments:

- Supervisor for the Italian Ministry of Research and University for the internal structure for the creation of the European Partnership (prot. MUR n. 19884 del 17/12/2020) in particular for the Partnerships: “High Performance Computing” and “Innovative SMEs”;
- Appointed as national contact point for the EIC (European Innovation Council) Plugin initiative in Horizon Europe (prot. n. 11895 del 23/07/2020);
- Supervisor for the Italian Ministry of Research and University for the sub-groups of the Shadow Strategic Programme Committee (prot. n. 1343 del 31/01/2020): “European Research Council (ERC), “Digital, Industry and Space”, “The European Innovation Council (EIC) and European Innovation Ecosystems”;
- Appointed as advisor for the Italian delegation in the board of Eurobioimaging ERIC (prot. n. 21961 of 10/12/2019);
- Member of the working group for the call PON Ricerca&Innovazione 2014-2020 Research Infrastructures (prot. n. 10239 of 12/06/2018);
- Collaboration in the drafting of the MIUR Position Paper on future FET Flagships presented at the "High-level round-table on preparing future FET Flagships" hosted by Commissioner Oettinger in Brussels on 15 December 2016;
- Assistance in bilateral and multilateral agreements, such as:
 - o Assistance in negotiation phase of the Square Kilometre Array Observatory (SKAO) and organisation of the signing ceremony of the international treaty for the constitution of the intergovernmental organisation;
 - o Transfer of the Data Centre of the European Centre for Medium-Range Weather Forecasts (ECMWF) to Bologna (Italy);
 - o Renovation of the headquarters of the European Molecular Biology Laboratory (EMBL) Outstation in Monterotondo (Rome).

May 2020

Technologist – Istituto Nazionale di Fisica Nucleare (INFN) / External Funds Division

– Nov 2020

Technologist at the Collaborative Research Office of the EU and International Projects Service of the External Funds Division.

Main duties: Identification and promotion of funding opportunities, also through the identification of research competences within the Institute; Assistance to the preparation, writing and review of proposals to apply to European and international calls, with particular reference to collaborative research calls (Eranet, FET Flagship, Research Infrastructure, Partnerships); Setup of tools and procedures for the correct implementation of proposals to apply to the research calls, with particular reference to the Horizon 2020 programme; Support for the compilation of the general consultations of the European Commission on the theme of research and innovation; Support in the creation of transnational project partnerships, with particular reference to the thematic lines of technological research and support to the identification of strategic partnerships; Analysis and dissemination of information and documentation on the evolution of the European strategy with focus on research and innovation and the implementation of the new EU programme 2021-2027.

Mar 2010

Teaching Assistant – Università Campus Bio-Medico di Roma / Departmental Faculty of

– Oct 2020 **Engineering**

Lessons, exercises, written and oral exams, evaluation of group projects for the following courses:

- 2019/2020: Teaching assistant for the graduate course of “Biomedical Research and Innovation Management and Assessment” (M. Sc., School of Biomedical Engineering).
- 2018/2019, 2015/2016, 2014/2015, 2013/2014, 2012/2013: Teaching assistant for the graduate course of “Health Technology Assessment” (M. Sc., School of Biomedical Engineering).
- 2015/2016 and 2014/2015: Teaching assistant for the graduate course of “Biomechatronics” (M. Sc., School of Biomedical Engineering).
- 2013/2014: Teaching assistant for the undergraduate course of “Fundamentals of Industrial Bioengineering” (B.Sc., School of Engineering).
- 2012/2013 and 2011/2012: Teaching assistant for the undergraduate course of “Mechanical Bioengineering” (B.Sc., School of Industrial Engineering).
- 2010/2011 and 2009/2011: Teaching assistant for the undergraduate course of “Laboratory of Mechanical Bioengineering and Mechanical Measurements” (B.Sc., School of Biomedical Engineering).

Co-supervisor of 5 bachelor thesis for the undergraduate course of Biomedical Engineering, 2 theses for the undergraduate course of Industrial Engineering, 6 master theses for the graduate course of Biomedical Engineering.

Jan 2018 – Apr 2020 **Post-doctoral Research Fellow – Stazione Zoologica Anton Dohrn / Grant and Innovation Office (GIO)**

Post-doctoral Research Fellow at the Grant and Innovation Office (GIO) on "Analysis, development and implementation of the Stazione Zoologica Anton Dohrn (SZN) European project management system".

Main duties: Scouting and analysis of the project ideas in SZN; Search for calls and research funding opportunities in the field of the mission of SZN; Partner search and construction of consortia for research and innovation projects; Assistance activities for the writing, planning, management, reporting of research and innovation activities within SZN projects; Assistance activities for external contracts and in the drafting of reports on the progress of the specific activities related to the contracts (institutional and not) of the SZN; Scientometric analysis of the SZN research products, statistical analysis of the SZN success rate and study of countermeasures aimed at increasing the SZN success rate.

Appointments:

- Member of the Technical Committee for administrative support to the procedures of purchase and expenditure reporting (determina n. 415 of 11/12/2018) within the project “Strengthening Marine Research and Infrastructures (EMBRC-IT) PRIMA” -PON Research and Innovation 2014-2020.

Jan 2012 – Dec 2019 **Post-doctoral Research Fellow – Università Campus Bio-Medico di Roma / CREO Lab -Advanced Robotics and Human-Centred Technologies**

Main duties: Biomechatronic design, experimental validation and assessment of novel robots and biomedical devices for assistance and rehabilitation of human limbs. Project management and fund raising for international and national research projects. Writing of European and national project proposals. Valorisation, industrial exploitation and technology transfer plans of the projects scientific results. Planning of clinical trials, CE mark process of biomedical devices, health technology assessment of clinical technologies.

Projects:

- Feb 2018 – Dec 2019 **“Rehab@Work - Bio-cooperative robotic system for upper-limb rehabilitation in working contexts”** (INAIL BRIC, www.unicampus.it/eng/research/research-unit/biomedical-robotics-and-biomicrosystems/14131-rehabrobo-work)

Main duties: Design, realization and experimental validation of a stand-alone mechatronic system for the active support of the upper limb during robot-assisted motor rehabilitation treatment in the 3D space.

- Feb 2016 – Feb 2018 **PPR2 (Progetto Protesi Ricerca 2) “Control of upper limb prosthesis with invasive neural interfaces”** (INAIL, www.ppr2.unicampus.it)

Main duties: Define the requirements and specifications for a novel prosthetic wrist according to the state of the art. Design and development of the novel prosthetic wrist. Exploitation of the design results and drafting of the patent on the robotic prosthetic joint. Design and development of tactile sensing system of a robotic hand prosthesis.

- Feb 2015 – Sep 2015 **AIDE “Adaptive Multimodal Interfaces to Assist Disabled People in Daily Activities”** (H2020-ICT-22-2014, https://cordis.europa.eu/project/rcn/194307_en.html)

Main duties: Leader of Task 3.7 “Experimental tests of the modular architecture” and Task 9.4 “Internal and

external scientific dissemination”.

- Mar 2015 – Apr 2015 **NEMESIS “NEurocontrolled MEchatronic prosthesis”** (Ministero della salute - Bando Giovani Ricercatori 2009, <https://www.unicampus.it/ricerca/unita-di-ricerca/robotica-biomedica-e-biomicrosistemi/2626-nemesis>)

Main duties: Integration of the experimental setup for grasping and manipulation tests.

- Apr 2013 – Apr 2014 **Fitness Machine project** (external contract for Meccanica Biomedica S.r.l.)
Main duties: Draft of the technical specifications and requirements. Detailed design of the fitness machine. Patent application for the invention of a novel compact multifunctional fitness machine embedding a constant force generator instead of the traditional weight stack.

- Apr 2013 – Jul 2013 **LAK “Living for All Kitchen”** (external contract for Rino Snaidero Scientific Foundation, www.mediastudio.it/LAK-living-for-all-kitchen.php)

Main duties: Experimental validation of new automation technologies and remote innovative services within the kitchen to improve the quality of life of people, especially elderly women and with mild cognitive disabilities, in terms of safety, comfort and energy saving. The study was carried on in collaboration with the Geriatrics Department of Università Campus Bio-Medico di Roma.

- Feb 2013 – May 2014 **HANDBOT “Hand biomechatronic prostheses with bioinspired tactile perception, bi-directional neural interfaces and distributed sensory-movement control”** (PRIN 2010-11, <http://www.unicampus.it/eng/research/research-unit/biomedical-robotics-and-biomicrosystems/1985-handbot>)

Main duties: Development of the preliminary design of sensorized objects.

- Oct 2012 – Dec 2012 **Optimization of the design and manufacturing technologies of robotic fish for edutainment** (external contract for XAM S.r.l.)

Main duties: Experimental technical study for the design and manufacture and validation in the field of a working robot fish prototype. Experimental study of a localization system of underwater robots.

- Jan 2012 – Feb 2014 **EVRYON “Evolving Morphologies for Human-Robot Symbiotic Interaction”** (FP7-ICT-2007-3-231451, https://cordis.europa.eu/project/rcn/89034_en.html)

Main duties: Design of the lower limbs wearable robot, development of compliant actuator to enhance a safe and efficient human robot interaction and in the experimental validation of the developed wearable robot on a group of able-bodied subjects and on a group of elderly subjects with gait disabilities. Patent application related to the invention of a non-anthropomorphic robots for lower limbs. Support to the management of the project for its entire duration (40 months).

Feb 2014 – Dec 2019 **CEO and founder - Bizzip Srl (Boocket)**

CEO of Bizzip Srl, company funded under the Smart&Start programme promoted by Invitalia and Italian Ministry of Economic Development. The main product of the company is Boocket, an e-ticketing platform (launched in March 2015) that allows the event organizers to create - in total autonomy - a web page for the event, from where they can sell the tickets, send them to the participants and check their validity (reading a QR-code) via app (iOS and Android). Boocket allows event organizers to issue the tickets (SIAE and not) in self-service mode with a high level of customization and in a pay as you go mode.

Dec 2017 – May 2018 **Project Manager – IRCCS SDN Naples (SYNLAB)**

Project manager with proven specialization for the implementation, management and reporting of European and national research projects and in the management of technology transfer activities.

Main duties: Scouting for calls for proposals and funding research opportunities and analysis of SDN project ideas; Assistance in writing, planning, management and reporting of research and innovation projects in SDN; Partnership building and inclusion of SDN in international research networks; Participation in grant and technology transfer office meetings of the IRCCS network of the Ministry of Health; Management of technology transfer activities and protection of intellectual property.

Nov 2014 – Sep 2015 **Project Manager – INAIL PPR2 project / Università Campus Bio-Medico di Roma / CREO Lab - Advanced Robotics and Human-Centred Technologies**

The objective of PPR2 project “Control of upper limb prosthesis with invasive neural interfaces” (www.ppr2.unicampus.it) is to develop a bidirectional control system for a prosthetic hand which, starting from the decoded signal of patient motion intention, is able on one hand to actuate the prosthesis motors to accomplish the task on the basis of a local proprioceptive and tactile feedback, on the other hand to elicit in the patient a tactile perception of the task through electrical stimulation signal directly sent to the Peripheral Nervous System on the afferent way. This research project is funded by and in collaboration with Centro

Protesi INAIL (Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro). Duration: from 02/05/2014 to 01/05/2017. Budget: 1'400'000 €.

Main duties: Planning and management of activities in order to achieve the project objectives on time and with respect to the costs and the high scientific level foreseen by the project; Management of a team of 10 people composed of engineers and medical doctors with different post lauream specialization level. Activities of Health Technology Assessment and feasibility studies; Valorisation, industrial exploitation and technology transfer plans of the scientific results; Exploitation and dissemination of the research results through the organization of workshops and meeting; Information management to all partners and stakeholders of the project.

EDUCATION

- Jan 2009 – **Ph.D. in Biomedical Engineering - Università Campus Bio-Medico di Roma**
 Apr 2012 Ph.D. Course in Biomedical Engineering – XXIV Cycle (awarded with a full scholarship) - Biomedical Robotics and Biomicrosystems Laboratory.
Thesis: Biomechatronic design of novel compliant active and passive joints for wearable robots.
Supervisors: Prof. E. Guglielmelli and Prof. D. Accoto.
- Sep 2011 – **Visiting PhD Student - Budapest University of Technology and Economics**
 Dec 2011 Visiting student in the Department of Manufacturing Sciences and Technology of Budapest University of Technology and Economics (BME) in the framework of the FP7 European project EVRYON.
Supervisor: Dr. Andras Toth
Main duties: Integration of hip and ankle module in a non-anthropomorphic wearable robot for the assistance and rehabilitation of the lower limbs during walking.
- Oct 2008 **Professional Engineering license**
 Information Engineer @ National Engineering Register (Section A) - Section of Naples (Italy)
- Jan 2006 – **M.S. in Biomedical Engineering - Università degli Studi di Napoli Federico II**
 Feb 2008 *Marks:* 110/110 cum laude
Thesis: The preservation of the CE mark for a medical device further to a maintenance process.
Relator: Prof. M. Bracale. *Co-Relators:* Prof. L. Mirarchi and Prof. L. Pecchia.
 The experimental work related to the thesis was developed through an internship at Siemens Medical Solutions, a leader international company in the diagnostic imaging field, concerning the processes at the basis of maintenance service for diagnostic imaging medical devices.
- Sep 2001 – **B.S. in Biomedical Engineering - Università degli Studi di Napoli Federico II**
 Dec 2005 *Marks:* 110/110
Thesis: The last generation lung ventilators: state-of-the-art and purchasing info.
Relator: Prof. M. Bracale.
- 1996-2001 **High School Diploma (classical) – Istituto Pontano**
Marks: 97/100

LANGUAGES

– **Italian** (native)

– **English** (fluent speaking, writing, listening, reading)

Apr 2008 - **IEP – The University of British Columbia (Vancouver, Canada)**

Jun 2008 Intensive English Program. Final outcomes: high-intermediate level in speaking and listening; advanced level in reading. *Principal subjects covered in the courses:* Business Reading, Speaking, Writing, Listening.

SKILLS AND COMPETENCES

General skills:

Team spirit and ability to manage the working group, to manage his own role within it and to perceive individual needs.

Leadership gained as team leader in project management activities at universities and research institutions.

Constructive and proactive attitude in problem solving gained working in the field of scientific research and as CEO and founder of a company.

Excellent sense of adaptation thanks to the participation in multicultural environments where it was essential to interact with others to achieve a shared goal.

Excellent communication skills acquired through university teaching and participation in international conferences.

Technical skills:

Strong expertise in scouting, writing, planning, management, reporting and monitoring of international, European and national research programmes and projects.

Excellent knowledge of technology transfer processes and management of intellectual property.

Strong experience in design, prototyping, fabrication, integration and testing of biomedical robots/devices.

Strong knowledge of biomedical devices CE mark process, clinical trials and health technology assessment.

Excellent mastery of free-form rapid prototyping printing technologies.

Software skills:

Operating Systems: Mac (expert), Microsoft Windows (expert).

Microsoft Office package: Word, Excel, Power Point (expert).

CAD software: SolidWorks (expert), AutoCAD, Inventor.

FEM analysis software: Comsol Multiphysics (expert), SolidWorks Simulation (expert), ANSYS.

Programming language: C++, MATLAB, LabVIEW.

Content Management System: Joomla, WordPress.

Text Editor: LaTeX.

Graphics: Adobe Photoshop, iMovie.

OTHER APPOINTMENTS

- From June 2020 member of the “Register of Expert Peer Reviewers for Italian Scientific Evaluation (REPRISE)” of the Italian Ministry of University and Research for the sectors Basic Research, Competitive Industrial Research and Social Development, Administrative-Accounting Audit.
- From November 2019 member of the “List of Qualified Managers and of Consultancy Companies” of the Italian Ministry of Economic Development.
- From July 2019 member of the “Register of Experts of the National Agency” for the Regional Health Services (AGENAS) in the thematic areas: "Research and International Relations", "Technical-Information Technology", "Economic/Legal".
- Programme Committee Member of:
 - o “UCAmI&IWAAL 2014”, “AmIHEALTH 2015”, “UCAmI 2016”, “UCAmI 2017”
- Peer reviewer for the journals:
 - o Actuators, IEEE Transactions on Robotics, Sensors, Robotica, Applied Bionics and Biomechanics, International Journal of Advanced Robotic Systems, Medical Engineering and Physics, IEEE Access, Journal of Healthcare Engineering, Journal of Prosthetics & Orthotics, IEEE Transactions on Medical Robotics and Bionics
- Peer reviewer for the international conferences:
 - o IEEE EMBS 2009, IEEE/RSJ IROS 2009, IEEE ROMAN 2009, CIS-RAM 2010, IEEE BIOROB 2010, IEEE ICRA 2011, IEEE IROS 2011, ICINCO 2012, IEEE BIOROB 2012, IEEE EMBC 2012, IEEE EMBC 2013, IEEE IROS 2013, UCAmI & IWAAL 2014, IFAC WC 2014, MBEC 2014, UCAmI 2015, IWAAL 2015 & AmIHEALTH 2015, IEEE BioRob 2016, UCAmI 2017, IEEE BIOROB 2018, IFAC CHPS 2018, IEEE ICORR 2019, IEEE EMBC 2019, ICNR 2020.
- Organisation of the following conferences:
 - o “OCTOPUS-EVRYON-WSK-TNg Summer School 2012” (Angelicum Congress Center, Rome, June 2012), “IEEE BIOROB 2012” (Angelicum Congress Center, Rome, June 2012), “FLAG-ERA Project Workshop 2” (MIUR, Rome, February 2014), “FLAG-ERA Project Workshop 8 and JTC 2016 Networking Event” (MIUR, Rome, December 2015), “FLAG-ERA JTC 2016 Project Seminar” (MUR, Rome, February 2020).

COURSES AND CERTIFICATES

Feb 2021	CINECA – UGOV-CO i controlli di fine anno e le chiusure contabili
Nov and Dec 2020	APRE (Agency for Promotion of European Research) – Scenario and perspectives of the new European Framework Programme for Research and Innovation
Jun 2020	INFN - Physics and Communication - Dissemination and Communication of European projects
Dec 2019	APRE (Agency for Promotion of European Research) – How to write a successful proposal in Horizon 2020
Dec 2019	APRE (Agency for Promotion of European Research) – How to successfully manage a project in Horizon 2020
Jun 2019	CODIGER - La Ricerca e la P.A. (Rettorato del Gran Sasso Science Institute)
Dec 2018	APRE (Agency for Promotion of European Research) – How to write a successful proposal in the ERC programme

Nov 2018	APRE (Agency for Promotion of European Research) - Legal&Financial aspects in Horizon 2020
Jun 2013	LabVIEW Core 1 (National Instruments)
Jun 2011	“PhD school” third edition (Università Campus Bio-Medico di Roma)
Apr – Jun 2011	“InnovActionLab 2011”: competition for young startupper
Feb 2011	Basic course for simulation instructor (ISMETT – Centro di Simulazione “Renato Fiandaca”) and certification of ACRM Simulator Instructor @ TÜPASS Center for Patient Safety and Simulation
Nov 2010 and Jan 2011	Formazione manageriale a supporto della gestione delle relazioni sindacali (SDA Bocconi School of Management)
Sep 2010	Embodied Intelligence Summer School (EMBODYi initiative - FET Proactive, 7th Framework Programme, ICT-2007.8.5, Livorno, Italy)
Jun 2010	“PhD school” second edition (Università Campus Bio-Medico di Roma)
May 2010	Good Clinical Laboratory Management (Quality Management Associates S.a.s)
Apr 2010	Data Management (Quality Management Associates S.a.s)
Mar 2010	Good Clinical Practices (Quality Management Associates S.a.s)

PROFESSIONAL ASSOCIATIONS

Ordine degli Ingegneri della Provincia di Napoli (member from November 2009 - section A, sector C)
 Founding member of the association Gruppo Nazionale di Bioingegneria (GNB)

HOBBY AND INTERESTS

Player in a rugby team for several years, passionate about new technologies.

PUBLICATIONS

From Google Scholar (<https://scholar.google.it/citations?user=-j6kaPcAAAAJ&hl=it>) updated to 25/02/2021:

Citations 612
 H Index 14
 i10-index 17

International journals

1. A. Demofonti, **G. Carpino**, L. Zollo, M. J. Johnson, “Affordable robotics for upper limb stroke rehabilitation in developing countries: a systematic review”, *IEEE Transactions on Medical Robotics and Bionics*, 3:1, pp. 11-20, February 2021, doi: 10.1109/TMRB.2021.3054462.
2. **G. Carpino**, A. Pezzola, M. Urbano, E. Guglielmelli, “Response to: Comment on “Assessing Costs and Effectiveness in Robot-mediated Lower Limbs Rehabilitation: a Meta-analysis and State of the Art””, *Letter to the Editor*, pp. 1-2, September 2019, doi: 10.1155/2019/9693801.
3. **G. Carpino**, A. Pezzola, M. Urbano, E. Guglielmelli, “Assessing Costs and Effectiveness in Robot-mediated Lower Limbs Rehabilitation: a Meta-analysis and State of the Art”, *Journal of Healthcare Engineering*, pp. 1-9, June 2018, doi: 10.1155/2018/7492024.
4. S. Giannatiempo, **G. Carpino**, T. Petitti, B. B. Zobel, R. F. Grasso, E. Guglielmelli, “Efficacy and economic impact evaluation of a navigation system for assisted lung biopsies”, *Healthcare Technology Letters*, 5:2, pp. 49-53, April 2018, doi: 10.1049/htl.2017.0015.
5. D. Simonetti, L. Zollo, E. Papaleo, **G. Carpino**, E. Guglielmelli, “Reprint of “Multimodal adaptive interfaces for 3D robot-mediated upper limb neuro-rehabilitation: an overview of bio-cooperative systems””, *Robotics and Autonomous Systems*, 90, pp. 86-96, April 2017, doi: 10.1016/j.robot.2016.11.002.
6. D. Simonetti, L. Zollo, E. Papaleo, **G. Carpino**, E. Guglielmelli, “Multimodal adaptive interfaces for 3D robot-mediated upper limb neuro-rehabilitation: an overview of bio-cooperative systems”, *Robotics and Autonomous Systems*, 85, pp. 62-72, November 2016, doi: 10.1016/j.robot.2016.08.012.
7. D. Accoto, F. Sergi, N.L. Tagliamonte, **G. Carpino**, A. Sudano, E. Guglielmelli, “Robomorphism: A Nonanthropomorphic Wearable Robot”, *IEEE Robotics and Automation Magazine*, pp. 45-55, December 2014, doi: 10.1109/MRA.2014.2360276.
8. **G. Carpino**, D. Accoto, N. L. Tagliamonte, G. Ghilardi, E. Guglielmelli, “Lower limb wearable robots for physiological gait restoration: state of the art and motivations”, *MEDIC Methodology & Education for Clinical Innovation – New Series*, 21:2, pp. 72-80, December 2013.
9. D. Accoto, **G. Carpino**, F. Sergi, N. L. Tagliamonte, E. Guglielmelli, “Design and Characterization of a Novel High-Power Series Elastic Actuator for a Lower Limbs Robotic Orthosis”, *International Journal of Advanced Robotic Systems*, 10:359, October 2013, doi: 10.5772/56927.
10. N. L. Tagliamonte, F. Sergi, D. Accoto, **G. Carpino**, E. Guglielmelli, “Double actuation architectures for rendering variable impedance in compliant robots: A review”, *Mechatronics*, 22:8, pp. 1187-1203, December 2012, doi: 10.1016/j.mechatronics.2012.09.011.
11. **G. Carpino**, D. Accoto, F. Sergi, N. L. Tagliamonte, E. Guglielmelli, “A novel compact torsional spring for Series Elastic Actuators for assistive wearable robots”, *ASME Journal of Mechanical Design*, 134:121002, pp. 1-10, October 2012, doi: 10.1115/1.4007695.
12. F. Sergi, D. Accoto, N. L. Tagliamonte, **G. Carpino**, E. Guglielmelli, “A systematic graph-based method for the kinematic synthesis of

non-anthropomorphic wearable robots for the lower limbs”, *Frontiers of Mechanical Engineering*, 6:1, pp. 61-70, March 2011, doi: 10.1007/s11465-011-0206-2.

Book chapter

1. D. Accoto, F. Sergi, N. L. Tagliamonte, **G. Carpino**, E. Guglielmelli, “A Human Augmentation Approach to Gait Restoration”, In Panagiotis Artemiadis (ed.), *Neuro-robotics: From brain machine interfaces to rehabilitation robotics*, pp. 345-377, Springer, June 2014, doi: 10.1007/978-94-017-8932-5_13.

Proceedings of peer-reviewed international conferences

1. F. Scotto di Luzio, D. Simonetti, F. Cordella, **G. Carpino**, F. Draicchio, L. Zollo, “An adaptive arm-weight support platform for 3D upper limb robot-aided neuro-rehabilitation”, *Proceedings of 7th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BIROB 2018)*, Enschede, The Netherlands, pp. 426-431, August 2018, doi: 10.1109/BIROB.2018.8487738.
2. F. Cordella, F. Taffoni, L. Raiano, **G. Carpino**, M. Pantoni, L. Zollo, E. Schena, E. Guglielmelli, D. Formica, “Design and Development of a Sensorized Cylindrical Object for Grasping Assessment”, *Proceedings of 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2016)*, Orlando, Florida, pp. 3366-3369, August 2016, doi: 10.1109/EMBC.2016.7591449.
3. C. Caparelli, **G. Carpino**, G. Brunetti, P. Larizza, E. Guglielmelli, “A Preliminary Health Technology Assessment of a Guidance System for Interventional Radiology”, *Proceedings of the 37th International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015)*, Milan, Italy, pp. 450-453, September 2015, doi: 10.1109/EMBC.2015.7318396.
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