

ESTRATTO DEL CURRICULUM VITAE

redatto ai fini della pubblicazione sul sito istituzionale della Scuola Superiore Sant'Anna

Cv per la pubblicazione su <https://www.santannapisa.it/it/titolari-di-incarichi-di-collaborazione-o-consulenza> ai sensi dell'art. 15-bis, comma 1, lett. b, del D. Lgs. 33/2013 rubricato "Obblighi di pubblicazione concernenti incarichi conferiti nelle società controllate", previa visione dell'informativa privacy.

Cognome e nome

Baldoni Andrea

Istruzione e formazione

Andrea Baldoni ha conseguito il Dottorato di Ricerca cum laude in BioRobotica presso la Scuola Superiore Sant'Anna di Pisa nel 2019.
Ha conseguito la laurea Magistrale e Triennale in Ingegneria Meccanica presso l'Università degli Studi di Perugia rispettivamente nel 2013 e nel 2011.

Esperienza lavorativa

Andrea Baldoni attualmente ricopre una posizione come post-doc all'Istituto di BioRobotica durante la quale ha maturato diverse pubblicazioni scientifiche (H index 8 con 262 citazioni) e numerose privative industriali.

Articoli Scientifici:

- 1) Pan et al. (2022) – NESM-gamma: An Upper-limb Exoskeleton with Compliant Actuators for Clinical Deployment – Robotics and Automation Letters (RA-L);
- 2) Fiumalbi et al. (2022) - A Multimodal Sensory Apparatus for Robotic Prosthetic Feet Combining Optoelectronic Pressure Transducers and IMU – Sensors
- 3) Fanciullacci, McKinney, et al. (2021) – Survey of transfemoral amputee experience and priorities for the user-centered design of powered robotic transfemoral prostheses – Journal of NeuroEngineering and Rehabilitation 18.1: 1-25.
- 4) Capotorti et al. (2021) – Decoding Intended Hand Movements Through an Algorithm Combining EMG with Fingers Kinematics: a Feasibility Study with a Torque-Controlled Hand Exoskeleton - IEEE Robotics and Automation Letters (RA-L).
- 5) Fanciullacci et al. (2020) – Evaluation of Human Factors for the User-centered Design of Powered Robotic Transfemoral Prostheses: A Survey of Transfemoral Amputee Experience and Priorities – Research Square.
- 6) Trigili et al. (2019) - Design and experimental characterization of a shoulder-elbow exoskeleton with compliant joints for post-stroke rehabilitation – IEEE/ASME Transactions on Mechatronics, 24(4), 1485-1496.
- 7) Marconi et al. (2019) - A novel Hand Exoskeleton with Series Elastic Actuation for modulated torque transfer – Transaction of Mechatronics - Mechatronics 61, 69-82.
- 8) Ercolini et al. (2018) - Powered exoskeletons for arm rehabilitation – Robotica Ercolino 37 (12), 2056-2072.
- 9) Crea et al. (2018) - Feasibility and safety of shared EEG/EOG and vision-guided autonomous whole-arm exoskeleton control to perform activities of daily living. Scientific reports, 8(1), 10823.
- 10) Baldoni et al. (2018) - Design and Validation of a Miniaturized SEA Transmission System – Mechatronics (Elsevier), Vol. 49, pp 149-156
- 11) Crea et al. (2017) - Validation of a Gravity Compensation Algorithm for a Shoulder-Elbow Exoskeleton for Neurological Rehabilitation. In Converging Clinical and Engineering Research on Neurorehabilitation II (pp. 495-499). Springer, Cham.
- 12) Crea et al. (2016, June) - A novel shoulder-elbow exoskeleton with series elastic actuators. In

2016 6th IEEE International Conference on Biomedical Robotics and Biomechatronics (BioRob) (pp. 1248-1253). IEEE.

Famiglie brevettuali:

- 13) Variable stiffness orthotic shell – WO 2021/124198 – 17/12/19 – Baldoni et al.
- 14) Method for optimizing the arrangement of pressure sensors and device obtained by this method - WO 2021/084427 – 28/10/2019 Martini et al.
- 15) Kinematic chain to assist flexion-extension of a joint – WO 2021/064544 – 30/09/2019 – Baldoni et al.
- 16) Telaio di sostegno ad un esoscheletro di mano – n°102019000005476 – 13/07/2017 – Baldoni et al.
- 17) Telaio di sostegno per esoscheletro di arto superiore – n°102019000001843 – 08/02/2019 – Baldoni et al.
- 18) Wearable robotic device for moving a user – WO2020/109996 – 27/11/2018 – Baldoni et al.
- 19) A planar torsional spring – WO2020/104962 – 21/11/2018 – Baldoni et al.
- 20) Wearable active robot for body joints in series – WO2020/070705 - 05/10/2017 – Baldoni et al.
- 21) Wearable active robot with sensor means for feedback control – WO2020/070703 - 05/10/2017 – Baldoni et al.
- 22) Wearable active robot with spinal polyarticular chain – WO2020/070704 – 05/10/2017 – Baldoni et al.
- 23) Multiple output actuation system for robotic joints – WO2020/070711 – 05/10/2017 – Baldoni et al.
- 24) Device for the selective transmission of driving torques – WO2020/070712 – 05/10/2017 – Baldoni et al.
- 25) Exoskeleton for the assistance of polyarticular joints – WO2020/070713 – 05/10/2017 – Baldoni et al.
- 26) Kinematical chain for assisting the motion of a spherical joint - WO2019/012429 – 13/07/2017 – Baldoni et al.
- 27) Exoskeleton for upper arm - WO2018/207073 – 08/05/2017 – Baldoni et al.
- 28) Joint for transmitting a torsional load with elastic response - WO2017/216740 – 17/06/2016 – Baldoni et al.
- 29) Kinematic chain for transmission of mechanical torques – WO2017/216663 – 14/06/2016 – Baldoni et al.

Andrea Baldoni da Gennaio 2021 ad oggi, supporta anche le attività di Knowledge Transfer Office della Scuola Superiore Sant'Anna di Pisa occupandosi in prima persona degli aspetti prevalentemente tecnici dei brevetti oltre che supportare l'ufficio in tutti gli aspetti in cui è coinvolto.