

1. Record Nr.	UNINA9910523764303321
Titolo	Converging Clinical and Engineering Research on Neurorehabilitation IV : Proceedings of the 5th International Conference on Neurorehabilitation (ICNR2020), October 13–16, 2020 // edited by Diego Torricelli, Metin Akay, Jose L. Pons
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-70316-9
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (870 pages)
Collana	Biosystems & Biorobotics, , 2195-3570 ; ; 28
Disciplina	610.28
Soggetti	Biomedical engineering User interfaces (Computer systems) Human-computer interaction Robotics Occupational therapy Neural networks (Neurobiology) Biomedical Engineering and Bioengineering User Interfaces and Human Computer Interaction Biomedical Devices and Instrumentation Robotic Engineering Occupational Therapy Systems Neuroscience
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	How to challenge patients during gait training: The effect of immersive virtual reality on the gait pattern in people post-stroke -- Automatic versus Manual Tuning of Robot-Assisted Gait Training -- Six weeks use of a wearable soft-robotic glove during ADL: preliminary results of ongoing clinical study -- Proof-of-concept of POF-based pressure sensors embedded in a smart garment for impact detection in perturbation assessment.-Influence of innovative rehabilitation technology on intensity of training: preliminary results -- Challenges in

adaptive robot-assisted gait training: the balancing act of minimizing assistance while preserving safety.

Sommario/riassunto

The book reports on advanced topics in the areas of neurorehabilitation research and practice. It focuses on new methods for interfacing the human nervous system with electronic and mechatronic systems to restore or compensate impaired neural functions. Importantly, the book merges different perspectives, such as the clinical, neurophysiological, and bioengineering ones, to promote, feed and encourage collaborations between clinicians, neuroscientists and engineers. Based on the 2020 International Conference on Neurorehabilitation (ICNR 2020) held online on October 13-16, 2020, this book covers various aspects of neurorehabilitation research and practice, including new insights into biomechanics, brain physiology, neuroplasticity, and brain damages and diseases, as well as innovative methods and technologies for studying and/or recovering brain function, from data mining to interface technologies and neuroprosthetics. In this way, it offers a concise, yet comprehensive reference guide to neurosurgeons, rehabilitation physicians, neurologists, and bioengineers. Moreover, by highlighting current challenges in understanding brain diseases as well as in the available technologies and their implementation, the book is also expected to foster new collaborations between the different groups, thus stimulating new ideas and research directions.
