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Collana	Biosystems & Biorobotics, , 2195-3562 ; ; 10
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Challenges in Neurorehabilitation and Neural Engineering -- Rehabilitation Technologies Applications in Stroke and Traumatic Brain Injury Patients -- Rehabilitation Technologies for Spinal Injury -- Rehabilitation Technologies for Cerebral Palsy -- Neural and Musculoskeletal Modeling: its Role in Neurorehabilitation -- Spinal Cord plasticity and Neuromodulation After SCI.- BCI Applied to Neurorehabilitation -- Robot-Assisted Rehabilitation Therapy: Recovery Mechanisms and their Implications for Machine Design -- Motor Control and Learning Theories -- Muscle Synergies in Clinical Practice: Theoretical and Practical Implications -- Workshop on Transcutaneous Functional Electrical Stimulation -- Virtual Rehabilitation.
Sommario/riassunto	This book reports on the latest technological and clinical advances in the field of neurorehabilitation. It is, however, much more than a conventional survey of the state-of-the-art in neurorehabilitation

technologies and therapies. It was written on the basis of a week of lively discussions between PhD students and leading research experts during the Summer School on Neurorehabilitation (SSNR2014), held September 15-19 in Baiona, Spain. Its unconventional format makes it a perfect guide for all PhD students, researchers and professionals interested in gaining a multidisciplinary perspective on current and future neurorehabilitation scenarios. The book addresses various aspects of neurorehabilitation research and practice, including a selection of common impairments affecting CNS function, such as stroke and spinal cord injury, as well as cutting-edge rehabilitation and diagnostics technologies, including robotics, neuroprosthetics, brain-machine interfaces and neuromodulation.