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Nota di bibliografia   Includes bibliographical references at the end of each chapters.

Nota di contenuto   Introduction (C. Guger at al.) -- An ECoG-Based BCI Based on Auditory Attention to Natural Speech (P. Brunner et al.) -- Motor Imagery BCI with Auditory Feedback as a Mechanism for Assessment and Communication in Disorders of Consciousness (D. Coyle et al.) -- Towards Continuous Speech Recognition for BCI (C. Herff et al.) -- Recovery of Brain Function by Neuroprostheses: A Challenge for Neuroscience and Technology (R. Hogri et al.) -- Estimation of Intracranial P300 Speller Sites with Magnetoencephalography (MEG) - perspectives for Non-invasive Navigation of Subdural Grid Implantation (M. Korostenskaja et al.) -- Brain-Machine Interface Development for Finger Movement Control (T.M. Lal et al.) -- Brain-Computer Interface Controlling Cyborg: A Functional Brain-to-Brain Interface between Human and Cockroach (G. Li et al.) -- A Brain-Computer-Interface to Combat Musculoskeletal Pain (N. Mrachacz-Kersting et al.) -- BCI-based Facilitation of Cortical Activity Associated to Gait Onset after

Single Event Multi-Level Surgery in Cerebral Palsy (J.I. Serrano et al.) -- Conclusion (C. Guger et al.).

Sommario/riassunto	This book describes the prize-winning brain-computer-interface (BCI) projects honored in the community's most prestigious annual award. BCIs enable people to communicate and control their limbs and/or environment using thought processes alone. Research in this field continues to develop and expand rapidly, with many new ideas, research groups, and improved technologies having emerged in recent years. The chapters in this volume feature the newest developments from many of the best labs worldwide. They present both non-invasive systems (based on the EEG) and intracortical methods (based on spikes or ECoG), and numerous innovative applications that will benefit new user groups.