



Brain-Computer Interfacing for Assistive Robotics

By Vaibhav Gandhi

Oxford Elsevier LTD Okt 2014, 2014. Taschenbuch. Condition: Neu. Neuware - Brain-computer interface (BCI) technology provides a means of communication that allows individuals with severely impaired movement to communicate with assistive devices using the electroencephalogram (EEG) or other brain signals. The practicality of a BCI has been possible due to advances in multi-disciplinary areas of research related to cognitive neuroscience, brain-imaging techniques and human-computer interfaces. However, two major challenges remain in making BCI for assistive robotics practical for day-to-day use: the inherent lower bandwidth of BCI, and how to best handle the unknown embedded noise within the raw EEG. Brain-Computer Interfacing for Assistive Robotics is a result of research focusing on these important aspects of BCI for real-time assistive robotic application. It details the fundamental issues related to non-stationary EEG signal processing (filtering) and the need of an alternative approach for the same. Additionally, the book also discusses techniques for overcoming lower bandwidth of BCIs by designing novel use-centric graphical user interfaces. A detailed investigation into both these approaches is discussed. An innovative reference on the brain-computer interface (BCI) and its utility in computational neuroscience and assistive robotics Written for mature and early stage researchers, postgraduate and doctoral students, and...



READ ONLINE

[5.94 MB]

Reviews

Completely among the finest book I have actually read through. It is probably the most remarkable book we have study. I discovered this book from my dad and i suggested this book to learn.

-- **Georgiana Pacocha**

This book will be worth buying. Better then never, though i am quite late in start reading this one. You may like how the blogger compose this publication.

-- **Mrs. Kylie Oberbrunner II**