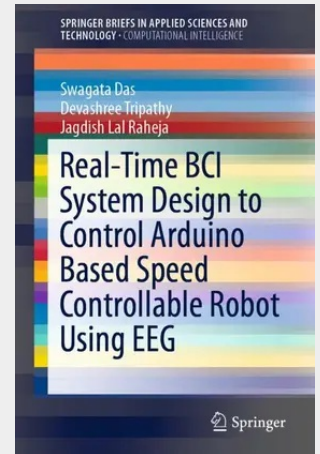


Real-Time BCI System Design to Control Arduino Based Speed Controllable Robot Using EEG

This book discusses the basic requirements and constraints in building a brain–computer interaction system. These include the technical requirements for building the signal processing module and the acquisition module. The major aspects to be considered when designing a signal acquisition module for a brain–computer interaction system are the human brain, types and applications of brain–computer systems, and the basics of EEG (electroencephalogram) recording. The book also compares the algorithms that have been and that can be used to design the signal processing module of brain–computer interfaces, and describes the various EEG-acquisition devices available and compares their features and inadequacies. Further, it examines in detail the use of Emotiv EPOC (an EEG acquisition module developed by Emotiv) to build a complete brain–computer interaction system for driving robots using a neural network classification module.

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