Special Issue

Advanced Technologies and Challenges in Brain Machine Interface

Message from the Guest Editor

The concept of the brain–machine interface (BMI) has existed for decades. Indeed, there is little doubt that BMI, if matured, could be used in every conceivable aspect of our daily life. With the rapid advancements in machine learning techniques, there has been a growing interest in further facilitating the utility of BMI outside the laboratory environments. Nevertheless, most of the existing BMI methods heavily rely on the use of electroencephalography (EEG), which involves several technological difficulties—namely, adequate placing and type of the electrodes, signal quality control for the acquired EEG, and proper, real-time interpretation of the EEG. These well-known yet still prevalent problems have been significantly hindering the active implementation of the BMI in industrial fields. This Special Issue calls for original research papers that address the aforementioned issues of EEG, and further, studies that propose novel methods for non-EEG-based or multimodal BMI. We are also interested in review articles focusing on recent advancements in BMI applications and/or the use of machine learning techniques in the development of BMI.

Guest Editor

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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