Abstract

Brain Computer Interface (BCI) is often directed at mapping, assisting, or repairing human cognitive or sensory-motor functions. Electroencephalogram (EEG) is a non-invasive method of acquisition brain electrical activities. Noises are impure the EEG recorded signal due to the physiologic and extra-physiologic artifacts. There are several techniques are intended to manipulate the EEG recorded signal during the BCI preprocessing stage of to achieve preferable results at the learning stage. This paper aims to present an overview on BCI different EEG brain signal recording artifacts and the methodologies to remove these artifacts from the signal focusing on different novel trends at BCI research areas.

References


Brain Computer Interface: EEG Signal Preprocessing Issues and Solutions


Index Terms

Computer Science

Signal Processing

Keywords

Brain Computer interface (BCI), EEG, artifact removal, preprocessing, EMG, EOG, filtering.