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Abstract

The task oriented brain activity analysis and classification is a prime issue in EEG signal processing these days. The similar attempt has been done here to estimate the brain activity on the basis of power spectrum analysis. For this, the modified approach involving both Independent Component Analysis (ICA) and Principal Component Analysis (PCA) methodologies has been used in this paper to investigate the behavior of brain's electrical activity for a simple case of visual attention. The proposed method of EEG classification can be very useful in predicting the action or the intention of action performed on the basis of EEG which leads to more development in brain computer interface. The EEG data has been referred from a website and the mathematical tool for EEG analysis called EEGLAB has been used to perform work in this paper.

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