

Device Control Using Brain Computer Interface

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Abstract : In current years, Brain-Computer Interface (BCI) scheme based on steady-state Visual Evoked Potential (SSVEP) have earned much consideration. This study tries to evolve an SSVEP based BCI scheme that can regulate any gadget mock-up in two unique positions ON and OFF. In this paper, two distinctive gleam frequencies in low-frequency part were utilized to evoke the SSVEPs and were shown on a Liquid Crystal Display (LCD) screen utilizing Lab View. Two stimuli shading, Yellow, and Blue were utilized to prepare the system in SSVEPs. The Electroencephalogram (EEG) signals recorded from the occipital part. Elements of the brain were separated by utilizing discrete wavelet Transform. A prominent system for multilayer system diverse Neural Network Algorithm (NNA), is utilized to characterize SSVEP signals. During training of the network with diverse calculation Regression plot results demonstrated that when Levenberg-Marquardt preparing calculation was utilized the exactness turns out to be 93.9%, which is superior to another training algorithm.

Keywords : brain computer interface, electroencephalography, steady-state visual evoked potential, wavelet transform, neural network

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