



## Survey of various techniques used for brain computer interface

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**Abstract :** A Brain Computer Interface (BCI) system classifies a user's brain activity into a signal to which a computer can respond. To control a BCI, the user should produce various brain activity patterns which are taken in the form of Electroencephalogram (EEG) and converted to commands by identifying the patterns by the system. A

brain computer interface (BCI) is a hardware and software communications system that permits cerebral activity alone to control computers or external devices. The immediate goal of BCI research is to provide communications capabilities to severely disabled people who are totally paralyzed. Brain Computer interface is a new field of research and interests, this paper is extending the concept of BCI interface on MATLAB software. The current research work that has been done involves three parts: Preprocessing, feature extraction and classification. So, a lot of feature extraction techniques like Fourier transform, wavelet transform and other simple time domain signal statistical calculations like average, root mean square, standard deviation, variance, kurtosis, skewness and many others. This paper has conducted an exclusive study and implementation on BCI competition data set 1. The result of this database is a 64 channel information which is a simple recording of brain activities for different regions of muscles and other nervous systems. This paper reflects the effect of channel 11 and 29

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