

ABSTRACT

Mental imagery psychological procedure by which a person stimulates the given action. Motor imagery training can be applied to the patients having neurological diseases e.g. (seizure, stroke and epilepsy) etc. also for studying different types of behavior and rehabilitation patients. Electroencephalogram (EEG) is used to measure patient's brain waves. Electroencephalogram (EEG) contains valuable information related to different psychological and mental states of the brain over time. Motor imagery has great importance in clinical therapy and successful treatment of patients having neurological disease and studying the behavior of healthy ones for increasing their efficiency. Motor imagery EEG signals are difficult to detect due to their large size, non-linear, non-stationary and time varying characteristics of electroencephalogram (EEG) signals which led to the introduction of classification process. The primary issue to speak to the tremendous measure of recorded EEG signals for further examination, for example, grouping. In this writing we have presented many flag handling strategies that will be utilized for highlight extraction and arrangement reason. The insufficiency of these strategies is that they don't function admirably when the information estimate is exceptionally expansive.

In this work, the element of the EEG information is diminished by Discrete Wavelet Transform (DWT). The diminished information is given to the classifier as input. A proficient EEG order procedure which recognizes EEG that is being changed over to portions. It helps in classifying type of motor imagery signal. The reduced EEG data is fed to the utilized classifiers for example (Support Vector Machines, K Nearest neighbor, Complex Tree and Bagged Tree). The execution of the classifier is assessed in term of rate Accuracy that accurate the fed signal was. The experimental results show that Discrete Wavelet Transform with these used classifiers gave promising results in EEG signals classification and provides about 94% accuracy. In order to enhance the patient's care and quality of life, this evaluation technique is used to propose a practical and reliable motor imagery detection procedure.