Abstract

In this paper we proposed new features based on wavelet transform for classification of human emotions (disgust, happy, surprise, fear and neutral) from electroencephalogram (EEG) signals. EEG signals are collected using 64 electrodes from twenty subjects and are placed over the entire scalp using International 10-10 system or international 10-20 system. The EEG signals are preprocessed using filtering methods to remove the noise. Feature extraction of the principle signal is done by using methods such as wavelet transform. The feature extracted signals are then classified using Neural Network (NN) and the neural system is trained and we get trained classifier according to the classification of the signals and the results are obtained. To test the signal the feature extracted signals are given directly to the trained classifier and results are obtained.

References


2. Chai Tong Yuen1,* , Woo San San1, Mohamed Rizon2 and Tan Ching Seong “Classification of Human Emotions from EEG Signals using Statistical Features and Neural Network”, International Journal of Integrated Engineering (Issue on Electrical and Electronic Engineering).


Index Terms

Computer Science Signal Processing

Keywords

Electroencephalogram (EEG); Neural Network (NN); Wavelet transform