

EEG signal analysis: An opening to the brain computer interface

Surita Maini and Sanjeev Singh

SLIET - Longowal, Punjab

The opening of a communication channel between brain and computer [Brain computer Interface (BCI)] is possible by using changes in electroencephalogram (EEG) power spectra related to the imagination of movements. Preliminary results from real-time 'brain-computer interface' experiments are presented. The analysis is based on live recordings using a 24 channel PC based EEG monitoring system.

Results are based on the study of 2 different trained subjects. It has been observed that the previous state of the patient has a conclusive effect on the EEG spectrum for a particular cognitive task. This paper briefs the modifications in the EEG spectrum accompanied with task imagery. For application based precise BCI development, EEG modifications due to Motor Imagery are prominently used.

