Brain Computer Interface Motor Imagery

What is Brain Computer Interface Motor Imagery

One of the most common types of Brain-Computer Interfaces (BCIs) system relies on Motor Imagery (MI) via electroencephalography (EEG). The most convenient basis biomedical signal recorded from human brain and provides high degree of freedom, it helps motor disabled people to communicate with the device by performing sequence of MI tasks, imagines that a subject performs a movement without performing the movement or event tensing the muscles. A simple model to execute a MI paradigm using Unicorn Hybrid Black Device. It might be used for neuro rehabilitation, robotic, flight control, 3D animation applications.

In the webinar, you will learn how to develop MI signal processing, classification, paradigm, data storage synchronization, offline processing and device configuration.

Key Highlight

- Develop MI pre-processing, bandpower estimation, classifier, logging and paradigm
- Subject imagines a foot or hand movement
- Classification vector for the linear discriminant analysis
- On-line experiment the weight vector via g.BSanalyze
- Output of BCI paradigm block system.
- Synchronize the paradigm with EEG data connect the trigger signal
- Trigger signal used to find the beginning of each trial