**Project**: Implementation of Brain Computer Interface.

**Background:**
- **Electroencephalography (EEG)** - is the recording of electrical activity along the scalp produced by the firing of neurons within the brain.
- **Brain Computer Interface (BCI)** – is brain activity driven interface, which enables a person to control an external agent by thinking, for example imagination of appropriate hand motion.
- [http://www.youtube.com/watch?v=_LtVLsxoN-M](http://www.youtube.com/watch?v=_LtVLsxoN-M)
- [http://www.youtube.com/watch?v=0-1sdtnuqcE&feature=player_embedded](http://www.youtube.com/watch?v=0-1sdtnuqcE&feature=player_embedded)

**Details**: During this project students will implement Brain Computer Interface based on EEG brain signal. This project includes: (1) Single trial signal processing; (2) Building of Brain Computer Interface, which will detect and correct (possibly) user's errors; (3) Real time implementation.

**Requirements**: Matlab, C+, signal processing.

**Length**: 2 semesters.

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