Brain State Decoding Lab

BrainLinks-BrainTools
Computer Science Dept.

UNI FREIBURG

BCI Project - Neglect

Just what is BCI, anyway?

A Brain-Computer Interface (BCI) makes use of machine learning methods, to decode ongoing brain signals. Via BCIs, users can type text, control a computer or wheelchair - even if they are severely motor impaired.

Who are we looking for?

CS master student seeking a master (group) project, or a thesis project -- ideally with a strong background in:
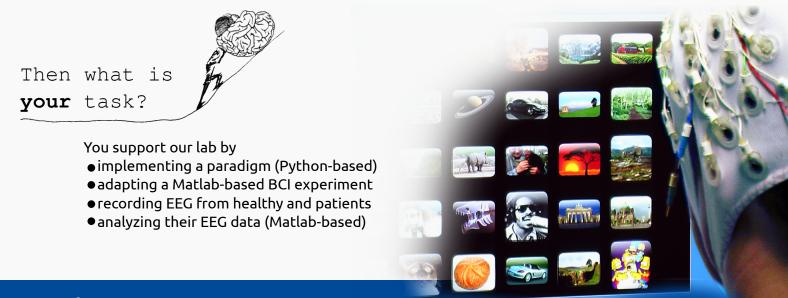- machine learning
- Matlab / data analysis

The idea in brief:

We are convinced: decoding an acting brain is valuable beyond communication and control. Thus we take BCI methods into the field of stroke rehabilitation and create closed-loop applications for rehab training.

This project addresses a defect which has a severe impact on the quality of life of patients: **deficit in awareness to and attention of one halfspace** (neglect).

Then what is **your** task?

You support our lab by
- implementing a paradigm (Python-based)
- adapting a Matlab-based BCI experiment
- recording EEG from healthy and patients
- analyzing their EEG data (Matlab-based)

More information:
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