



Request for approval Ethics commission

Solver: Bc. Jan Rychlík

Project: Automatic detection of sleep spindles by deep learning methods

Institut: University of West Bohemia

Project description

Project solved in cooperation with the University of West Bohemia in Pilsen called: „Automatic detection of sleep spindles by deep learning methods”. The project will be processed as a diploma thesis by student Jan Rychlík. The details about the project are described in the attachment.

The elaboration of the project should verify whether it is possible to process EEG data using CNN or LSTM neural networks. The neural networks should be trained to annotate sleeping spindles in EEG sleeping data.

The annotated data for training networks will be provided from the Montreal Archive of Sleep Studies (MASS) group. Use of the data will be in accordance with the license conditions of the MASS group and will be according to the codex (file in the attachment).

The results of the experiment can facilitate the processing of medicinal EEG records. Processing the data by machine learning methods eliminates the chance of human mistake and can save a lot of time.

Attachments

- Research affiliation
- Automatic detection of sleep spindles by deep learning methods project
- Code for work with data

15.12.2021

Jan Rychlik