



Master thesis project

The spinal motor neurons are the only neurons that can be recorded in the central nervous system of living humans. This is possible by decomposing signals from muscles, e.g. electromyography, magnetomyography or ultrasound. Yet, existing methods only allow the detection of a few motor neurons. Here, we combine biophysical modelling, in-vivo measurements and novel algorithms to push the limits of motor unit decompositions.

Tasks:

- Signal processing
- Biophysical modelling
- Algorithm development

Requirements:

- Basic programming skills
- Basic knowledge of physiology
- Motivation to dive into a new research project giving you the chance to learn new skills and make new connections

Language:

English or German

Contact:

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**A unique window
into the central
nervous system**

