

Funded PhD position (m/f/d)

In modelling neuro-muscular control of human movements with a link to rehabilitation robotics

The Hertie Institute for Clinical Brain Research (HIH), together with the University of Tübingen's Neurology Hospital, forms the Center of Neurology. It is dedicated to research, treatment, and teaching focused on the diseases of the human brain.

Starting winter 2022/23 or spring the HIH is looking for a

PhD Student (m/f/d)

We offer

a **funded researcher position for 36 Months** in our project „Modelling impaired motor control towards assistance in daily activities“. The project combines biomechanical models, computational motor control and machine learning with the aim to reproduce healthy and impaired human movements. Your project will contribute to the development of novel wearable rehabilitation robotic devices.

You will become a member of the group *Multi-Level Modeling in Motor Control and Rehabilitation Robotics* at the Hertie Institute for Clinical Brain Research (HIH) in Tübingen. We are a young and dynamic group bridging biomechanics and neuroscience research. The project is embedded in the CyberValley (<https://cyber-valley.net/en>), Europe's largest AI research consortium. Your thesis will be part of an ongoing collaboration with researchers from the University of Stuttgart and the Max-Planck-Institute for Intelligent Systems. Our joint research environment offers an excellent research infrastructure and outstanding graduate schools fostering the development of your career.

Your contract should start in winter 2022/23 or spring 2023. Salary will be based on previous experience.

Requirements, core skills

The ideal candidate should have

- A background in biomedical engineering, (bio-)physics, computational neuroscience, or closely related
- A Masters (or equivalent) degree from a recognised university. Near completion can be considered;
- Prior knowledge in biomechanical modelling, multi body dynamics modelling, dynamical systems, or (rehabilitation)robotics is a plus;
- Prior experience with neuro-muscular or computational motor control is a plus;
- Proficient programming experience in Matlab, Python, or similar
- Excellent grades and analytical skills;
- Proficient oral and written English skills;
- Outstanding candidates with different backgrounds are encouraged to apply

To apply: Please send a Cover letter, CV, and transcript of records, along with contact details of two researchers or teachers who would be willing to write a letter of reference (we will contact them directly) to:

daniel.haeufle@uni-tuebingen.de
<https://www.hih-tuebingen.de/en/mocom/>

Deadline: The position will remain open until filled. Applications sent before October 3rd 2022 will be prioritised.