Virtual environments for traumatic hand injuries and bionic prosthetics

The Department of Hand, Plastic, Reconstructive and Burn surgery at the BG Trauma Center Tübingen, together with the Eberhard Karls University Tübingen, is currently looking for a:

**PhD student**

The position (65%) is initially scheduled for 1 year with prospective extension, in accordance with the German public service collective agreement pay scale (TV). Starting date is within the last quarter of the year, i.e. November 1st 2019.

We offer you the opportunity to work at a high scientific level in an experienced research team at the intersection of research and clinics. Our extensive interdisciplinary infrastructure enables local as well as international co-operations across life sciences, technology and medicine. We encourage initiation of new research projects, publishing in leading scientific journals and presenting our research at national and international conferences.

**Project**: The hand is the part of the body most frequently injured in occupational accidents. For the best possible restoration of the hand, an intensive functional aftercare is required. Advances in technology continually influence the current medical practice and create new tools for therapy. These novel rehabilitation methods strive to take advantage of neuroplastic processes during the recovery period while targeting motor deficiencies. We are looking to develop virtual environments and innovative applications to examine physiological processes which serve as base for practical interventions.

**Qualifications**: We are looking for highly motivated team players, who are passionate about bringing scientific research to patient care. Speaking German is an asset, but not a requirement for this position.

- A master’s degree in the field of medical informatics/biomedical engineering/computer science/game design/cognitive science or similar disciplines
- Experience with biomedical assessment, analysis and data processing (i.e. EMG, body tracking, eye tracking) and Machine Learning
- Programming skills in Matlab, Python, Java, C#, Android, Unity 3D, Raspberry Pie, Arduino
- Experience with 3D Modelling, i.e. Blender
- Interested in continued learning “what you don’t know, you can always learn”
Application: Please include the following documents as PDF in your application and send them to cprahtm@bgu-tuebingen.de. After receiving your application, we might want to schedule an interview.

- Motivational letter outlining how you meet the requirements of the position, previous projects and research experience and what motivates you for this project
- Complete Curriculum Vitae including a list of publications, funding, awards, stipends, further educational courses, etc.
- Scan of University education certificates
- Names and Email addresses of at least two professional references (i.e. supervisors, research advisors, mentors)

Principal Investigator: Professor Adrien Daigeler, MD
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