



Karlsruhe Institute of Technology

Karlsruhe Institute of Technology
Personalservice (PSE)

Kaiserstraße 12
76131 Karlsruhe
Germany

<http://www.pse.kit.edu>

PhD Position in “Human Motor Control and Biomechanics”

Job description:

The “BioMotion Center” group (professorship of Prof. Dr. Thorsten Stein) at the Institute of Sports and Sports Science (IfSS) offers a PhD position in an interdisciplinary robotics project at KIT, Germany. The aim of the project is the development of humanoid assistive robots and exoskeletons that provide personalized assistance for older adults to maintain independence during daily life.

In this project, the "BioMotion Center" group is working in close cooperation with researchers from sports & health sciences, computer science, and engineering science to address the following problems: (1) Biomechanical modeling and analysis of human gait and balance in critical situations (e.g., tripping) to inform the development and evaluation of exoskeletons. (2) Adaptation and de-adaptation of the user to an exoskeleton. (3) Use of exoskeletons as an analysis and training tool for physical performance in aging. PhD students are expected to actively contribute to laboratory experiments related to the outlined problems and participate in all project-related interdisciplinary research activities (e.g., participation in weekly lab meetings or regular meetings with all co-investigators).

Qualification:

- Very good Master's degree in the fields of sports science (preferably with a focus on movement science, biomechanics, or computer science) or physics/ engineering science (preferably with a focus on biomechanics)
- Ability to work independently as well as within a team
- Strong interest in interdisciplinary work in the context of human movements and assistive robotics
- Basic knowledge in human motor control as well as biomechanics of human movements
- Basic skills in programming (e.g., Matlab)
- Advanced knowledge of written and spoken English (Project language is English) and at least basic knowledge of German (desirable)

We offer:

We offer an interesting, versatile PhD position in a dynamic interdisciplinary team with a well-equipped biomechanics lab, a wide range of training opportunities, flexible working time models, an allowance for the job ticket BW and much more.

Salary:

The remuneration occurs on the basis of the wage agreement of the civil service in TV-L E13 (70%).

Institute:

Institute of Sports and Sports Science (IfSS) / BioMotion Center

Contract duration:

3,5 years

Starting date: at the earliest opportunity

Application up to: 26 June 2022; Negotiations with fitting candidates will start immediately after having received applications.

Contact person in line-management: Further information on the position may be obtained from Prof. Dr. Thorsten Stein (email: thorsten.stein@kit.edu).

Application: Please send your application including a cover letter, your CV, and all certificates/referees in electronic form to the secretary of Prof. Dr. Stein, Ms. Glaser (email: petra.glaser@kit.edu) to Karlsruhe Institute of Technology, Institute of Sports and Sports Science, Prof. Dr. Thorsten Stein, 76131 Karlsruhe, Germany.

vacancy number: 2112/2022

We prefer to balance the number of employees (f/m/d). Therefore, we kindly ask female applicants to apply for this job.

Recognized severely disabled persons will be preferred if they are equally qualified.

Karlsruher Institut für
Technologie
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