The Center of Excellence, Cognitive Interaction Technology (CITEC), offers a full-time research position starting on November 1st, 2019.

(E13 TV-L) (non-permanent position)

Your Tasks

The advertised vacancy is located within the Neuroinformatics (NI) Group of the Faculty of Technology and the Cluster of Excellence, Cognitive Interaction Technology (CITEC). The position is embedded within the EU Training Network “NeuTouch”. Successful candidates (or so-called Early Stage Researchers (ESRs)) will contribute to NeuTouch’s aim of improving artificial tactile perception in robots and prostheses, by understanding how to best extract, integrate and exploit tactile information at system level. ESR10 (NI group) will focus on the development of robot manipulation skills exploiting visual and tactile feedback to reliably operate various kinds of knobs and switches. The position advertised here can be filled with a doctoral student. Tasks:

- development of learning paradigms (RL) to enable a robot to acquire manipulation skills to operate knobs and switches exploiting tactile and visual feedback
- implementation and evaluation of these approaches both in simulation and on a bimanual robot system
- participation in NeuTouch activities (e. g. summer school, secondments, etc.)
- supervision of related master or bachelor theses as needed

An important part of ITNs are secondments to project partners, both in research and industry. This provides the opportunity to gain deeper insight into applied methods and a broader view onto applications.

Your Profile

We expect:

- university degree in computer sciences, engineering, physics, mathematics, neuroscience or related disciplines
- fluent written and oral communication skills in English
- experience in Deep Learning, particularly Deep Reinforcement Learning
- proficient programming skills in C++ and Python and knowledge of DRL tools, e.g. OpenAI Gym, Keras, TensorFlow
- self-driven, goal-oriented and systematic approach to new topics
- high degree of commitment and initiative as well as being able to work closely and communicate effectively with a diverse group of scientists and technical staff
- willingness to participate in international and interdisciplinary collaborations

Due to ITNs aim to strengthen international cooperation, at the time of recruitment by the university, researchers must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months during the 3 years immediately before the reference date. Compulsory national service and/or short stays such as holidays are not taken into account. In addition, the applicant’s scientific degree must not be older than four years at the time of recruitment.

Preferable qualifications:

- experience with event-based information processing
- experience in visual and tactile sensor processing and servicing
- experience with ROS-based robot control
- experience in tactile and visual sensor processing and servicing
- knowledge of Linux-based IT environments
- fluent written and oral communication skills in German
- experience with ROS-based robot control
- willingness to participate in international and interdisciplinary collaborations

Remuneration

Salary will be paid according to Remuneration level 13 of the Wage Agreement for Public Service in the Federal States (TV-L). As stipulated in § 2 (1) of the WissZeitVG (fixed-term employment), the contract will end after one year with the option for two years extension (PhD). In accordance with the provisions of the WissZeitVG and the Agreement on Satisfactory Conditions of Employment, the length of contract may differ in individual cases. The employment is designed to encourage further academic qualification. In principle, these full-time position may be changed into a part-time position, as long as this does not conflict with official needs.

Bielefeld University is particularly committed to the career development of its employees. It offers attractive internal and external training and further training programmes. Employees have the opportunity to use a variety of health, counselling, and prevention programmes. Bielefeld University places great importance on a work-family balance for all its employees.

Application Procedure

For full consideration, your application should be received via either post or e-mail (a single PDF) document sent to

rhaschke@techfak.uni-bielefeld.de

by the 9th of May, 2019. Applications must be in English and include the following documents (maximum two pages for points 1-4, 1 cover letter, 2 meaningful description of your research area (topics and methods), 3. research statement covering personal research interests, planned research goals and how they fit into the research carried out in the NI group (ESR10), 4. CV outlining prior education, research experience, skills and publications. 5. two letters of reference; 6. academic transcripts (bachelor and master/diploma). Please include a copy application with the identification code (CITEC). The position is paid E13 TV-L (non-permanent position). We do not use application portfolios and send only photocopies of original documents because all application materials will be destroyed at the end of the selection procedure. Further information on Bielefeld University can be found on our homepage at www.uni-bielefeld.de.

Postal Address

Universität Bielefeld
Neuroinformatics Group - CITEC
Herrn Dr. Robert Haschke
P.O. Box 10 01 31
33501 Bielefeld
Germany

Contact

Name: Dr. Robert Haschke
Phone: (+49) 521 106 - 12122
Email: rhaschke@techfak.uni-bielefeld.de

Bielefeld University has received a number of awards for its achievements as an equal-opportunity employer and has been recognized as a family-friendly university. The university welcomes applications from women. This is particularly true with regard both to academic and technical posts as well as positions in information technology as well as the skilled crafts and trades. Applications are handled according to the provisions of the state statutes on equal opportunity. Applications from suitably qualified handicapped and severely handicapped persons are explicitly encouraged.