As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

The Faculty of Mathematics, Informatics and Natural Sciences, Department of Informatics, Institute of Knowledge Technology invites applications for a

**RESEARCH ASSOCIATE FOR THE PROJECT “CROSSMODAL LEARNING: NEUROCOGNITIVE MODELS OF LANGUAGE LEARNING FOR ROBOTS”**

- SALARY LEVEL 13 TV-L -

The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on 1st June 2020 or as soon as possible.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed until 31st December 2023. The position calls for 100% of standard work hours per week**. This position is also suitable for part time employment.

**RESPONSIBILITIES:**

Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

**SPECIFIC DUTIES:**

Duties in the project include the design, development and evaluation of neurocognitive models of crossmodal language learning. The overall project aims to deepen interdisciplinary research between computer science, neuroscience, and psychology in order to set up collaborative research with a focus on human-robot-interaction while focusing on the topic of crossmodal language learning. This includes topics of embodiment, developmental learning and understanding from large-scale datasets. Specifically, we hypothesize that with multimodal experience, collected while a robot interacts in the real world (or in simulation) with its surrounding, an agent will obtain better underlying representations for language than if representations are learnt merely from language corpora. Hence, a multimodal embodied robot would perform better in tasks like visual question answering and generalize better to novel situations. The long-term challenge is to understand the neural, cognitive and computational evidence of cross-modal learning and to use this understanding for (1) better analyzing human performance with crossmodal correspondence and (2) building effective crossmodal computational and robot systems.

* Full-time positions currently comprise 39 hours per week.
REQUIREMENTS:

A university degree in a relevant field. Academic degree of MSc in computer science, computer engineering or similar qualifying the post holder to carry out the above-mentioned duties. Programming skills in some of Python, C, ROS, Tensorflow or PyTorch are required. Your demonstrated research interests should be in some of the areas of Intelligent Systems (e.g. Neural Networks, Robotics, Machine Learning, Speech, Vision). Publication experience is desired. Very good communication skills in English are expected.

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women are currently underrepresented in this job category at Universität Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women to apply for this position. Equally qualified and suitable female applicants will receive preference.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Prof. Dr. Stefan Wermter or consult our website at https://www.informatik.uni-hamburg.de/wtm/.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 23th April 2020 to: Ms Katja Kösters (katja.koesters@informatik.uni-hamburg.de) in a single pdf document.

Please do not submit original documents as we are not able to return them. Any documents submitted will be destroyed after the application process has concluded.