

2 doctoral & 2 postdoctoral positions in gesture research project at RWTH Aachen University

HumTec (Human Technology Centre) is an interdisciplinary project house at RWTH Aachen University, funded by the Excellence Initiative of German federal and state governments. HumTec aims at fostering high-level interdisciplinary research between the humanities/social sciences and the engineering/natural sciences ([www.humtec.rwth-aachen.de](http://www.humtec.rwth-aachen.de)).

HumTec invites applications for several doctoral and post-doctoral positions anchored in the newly-established, interdisciplinary research program Natural Media & Engineering: Emotion-Cognition Interactions and their Modification. The project explores the various functions natural media serve in human face-to-face interaction and in human-computer interaction. Of central interest is the interplay of speech, gestures, and facial expressions.

The aim is to examine the semiotic foundations of multimodally communicated cognitive-emotional processes, as they manifest themselves under naturalistic, clinically impaired, and technologically modified conditions. Combining methods from semiotics, linguistics, cognitive psychology, clinical neuroscience, and computer science, investigations will be carried out in three interrelated groups. The focus of each group and the distribution of the advertised positions across these groups will be as follows:

1) Mediality in Multimodal Communication aims at developing a comprehensive, cognitive-semiotic framework for a theory of natural media of human communication. Theory-building will be rooted in empirical studies integrating experimental design and naturalistic usage data.

**2 Ph.D. positions:** Successful candidates will have an outstanding degree and academic record demonstrating a strong theoretical background in semiotics, linguistics, cognitive psychology, and/or psycholinguistics as well as in experimental and/or empirical methods. Experience with coding and analyzing multimodal data including co-speech gesture and/or facial expressions is a plus.

2) Natural Media & Clinical Neuroscience will examine the neural substrate underlying cognitive-emotional processes during verbal and non-verbal communication in both normal and dysfunctional communicative patterns, e.g., in aphasia, schizophrenia, and autism.

**1 PostDoc position:** Successful candidates will have an outstanding doctoral degree in clinical neuroscience, cognitive neuroscience, psycholinguistics, and/or medicine with a focus on brain correlates of language and communication. They have a strong background in experimental and/or empirical methods including statistics, models of normal and impaired language processing (including sign language) and expertise in modern brain imaging and stimulation techniques. Experience with project management and conducting studies with neurological or psychiatric patients is a definite plus.

3) Natural Media & Serious Gaming will investigate the role of natural media in the design and use of cooperative computer games in “serious gaming” contexts.

**1 PostDoc position:** Successful candidates have accomplished a doctorate in computer science or a closely related field. They have a strong background in pervasive game technology and implementation, and/or in design and evaluation methods for “serious games” in domains such as engineering, business, or medicine. Interest and experience in interdisciplinary cooperation is a definite plus.

HumTec welcomes creative and team-minded young scholars with a genuine interest in cross-disciplinary research. The successful candidates will work closely with renowned experts in their fields and have access to state-of-the-art facilities including neuroimaging technologies (e.g., PET-Scanner and 3T-MRI) housed at the university hospital ([www.ukaachen.de](http://www.ukaachen.de)). No previous knowledge of German is required, but the willingness to learn German is desirable. Aachen (Aix-la-Chapelle) is a UNESCO heritage site located one hour West of Cologne, right on the borders with Belgium and the Netherlands.

All four positions will be filled as soon as possible, and they are available for 2 years (with an option of renewal). The PostDoc positions are full-time positions; the doctoral positions are part-time positions.

Your application should include a CV, a cover letter, and a 3-page statement of research interests. Please also provide the names and email addresses of three referees.

The deadline for applications is **June 30, 2009**.

Please address inquiries and completed applications (by either email or regular mail) to:

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For more information on the project, please visit [www.humtec.rwth-aachen.de](http://www.humtec.rwth-aachen.de)

RWTH Aachen University has been awarded the "Total-E-Quality-Award" for its efforts regarding gender equality, and aims to increase the number of women in areas in which they are underrepresented. Women are thus strongly encouraged to apply. For further information, please visit <http://www.rwth-aachen.de/equality>.

RWTH Aachen University been awarded the attribute "disability-friendly" for its efforts to train and employ severely disabled people. Applications from severely disabled persons with appropriate suitability are explicitly welcome. For further information, please visit <http://www.rwth-aachen.de/disabilities>.