



Ph.D. student position in Emotions and Human Motion

Department of Industrial Engineering and Management

Agricultural, Biological, Cognitive Robotics Initiative

Ben-Gurion University of the Negev, Israel

Research topic: Effects of people's emotional state on their body motion

This research project aims to examine the effects of people's emotional state on their body motion. Based on data generated in lab experiments using a Motion Capture System, we will investigate the relation between people's emotional state and their body motion and will develop models and algorithms for emotion recognition based on human motion. Such models may be used to develop robots that express emotion in their motion and/or devices that can recognize people's emotional state by monitoring their motions. The project combines data acquisition of motion data, theoretical work, and implementation work.

This is an interdisciplinary project conducted in collaboration among researchers from engineering and from behavioral sciences. The research team is led by Raziel Riemer who specializes in research in the area of biomechanics, and Hila Riemer who specializes in research on emotions across cultures.

Requirements

The applicant for this position must have completed an M.Sc. or M.A. thesis in Engineering, Computer Sciences, Psychology, Biomechanics, or Cognitive Sciences. The applicant must be skilled in both oral and written communication in English, can work independently as well as in collaboration with others. We are looking for candidates with strong technical and programming skills. Experience in traditional biomechanics and motor control research techniques, such as motion capture, force measurement, electromyography, programming (MATLAB/C++/python), and statistics are merits. Candidates should have interest in understanding human behavior (although should not necessarily have background in such topics) and be passionate about learning and developing knowledge in a novel and exciting area.

Ben-Gurion University of the Negev

Ben-Gurion University (BGU) is an internationally recognized research university that attracts outstanding faculty and researchers from around the world with over 19,000 students. Advance innovative multidisciplinary robotics research at BGU is conducted under the auspices of the ABC Robotics Initiative (www.bgu.ac.il/abc-robotics).

SOCRATES

The recruitment is done as part of SOCRATES (SOcial Cognitive Robotic Agents in The European Society), a new Marie Skłodowska-Curie European Training Network (ETN) comprising 7 universities/research institutes: Umeå University and Örebro University in Sweden, Universität Hamburg and Fraunhofer IPA, Stuttgart in Germany, CSIC Barcelona in Spain, University West of England, and Ben-Gurion University of the Negev in Israel. Additional non-academic partners are: Pal Robotics, Adele Robots, Alfred Nobel Science Park, Urquhart-Dykes & Lord LLP, Center for Digital Innovation, UMINOVA, Asea Brown Boveri, S.A, and Fundació ACE.

About the position

The research will be conducted at BGU (Israel) with some training in Germany (Universität Hamburg and Fraunhofer IPA, Stuttgart in Germany). The successful applicant will devote full time for research and will receive a competitive salary for a period of three years, provided that expected study and research results are achieved. No teaching is expected. The salary will be based on the standard Marie Skłodowska-Curie Early-Stage Researcher living and mobility allowances.

Expected starting date is September 2017, or as soon as possible after this date.

Once approved by BGU's SOCRATES graduate committee, the student must be accepted to BGU's graduate school (http://in.bgu.ac.il/en/kreitman_school/Pages/admission.aspx) and obtain a visa and working permit according to the Ministry of Interior requirements. The candidate must submit a research proposal and go through a Qualification Exam within one year of studies on his/her research proposal.

To promote mobility, the following rule applies: At the time of recruitment, the applicants must not have resided or carried out their main activity in Israel for more than 12 months during the last 3 years. Compulsory national service, work in international organizations, and short stays such as holidays are not taken into account. The applicants must not, at the time of recruitment, have spent more than 4 years doing research, and must not have been awarded a doctoral degree.

Application

A complete application should contain the following documents:

- A cover letter including a description of your research interests, your goals in applying for the position (how would this position fit with your goals), and your contact information.
- A curriculum vitae.
- Copies of degree certificates, including documentation of completed academic courses and obtained grades.
- Copy of completed MSc or MA thesis and other original research publications.
- Contact information of three people willing to serve as references (including your Msc/MA thesis advisor).
- Documentation of programming skills and software development experience.

Applications should be submitted electronically by email no later than August 1, 2017, to the following address: socrates@post.bgu.ac.il.

For more information about the project and position please contact socrates@post.bgu.ac.il

www.socrates-project.eu
www.bgu.ac.il
www.bgu.ac.il/abc-robotics
<http://www.bgu.ac.il/~rriemer/>

Applications will be accepted until the position is filled.