PhD Studentship in Physiological Computing and Artificial Intelligence for Mental Disability Innovation

Department of Computer Science

University College London (UCL)

Applications are invited for a PhD studentship in Department of Computer Science at UCL.

Start Date: November 2019

We are seeking to appoint a talented PhD student who will explore an emerging research area, *physiological computing and artificial intelligence*, with the specific aim to boost disability innovation. This is a 4-year fully funded post (tuition fee and stipend) in the department of Computer Science at UCL.

Supervision

The successful candidate will be primarily supervised by <u>Dr. Youngjun Cho</u> at <u>Global</u> <u>Disability Innovation Hub</u> & <u>UCL Interaction Centre</u>. The successful candidate will benefit from constructive collaboration with other departments and industrial partners, for example, co-supervision by a faculty from <u>UCL Institute of Neurology</u> or the <u>Alan Turing Institute</u>, depending on the research focus the candidate pursues.

Project

The project seeks to investigate novel AI-driven physiological computing technologies for mental disability innovation. The aim is to build methods and systems that can monitor a person's physiological and psychological states in a contact-less manner in real-world situations. In particular, the candidate will explore new imaging-enabled physiological computing methods, such as, thermal imaging-based cortical mapping. The main application area is disability innovation, with a focus on how to tailor daily activities to physiological, psychological needs of people with disability.

The PhD will involve building and evaluating physiological computing algorithms, systems and testing them in the lab and in the wild.

This position will be based in the <u>Global Disability Innovation Hub</u> & <u>UCL Interaction Centre</u> (UCLIC).

Person Specification

Applicants should be interested in Physiological Computing, Artificial Intelligence, Human-Computer Interaction and Disability.

Applicants should possess a Masters degree in a related discipline. Prospective candidates should also have an interest and experience in Computer Vision, Machine Learning, Physiological Signal Processing, Brain Imaging or Brain-Computer Interface.

Application Procedure

Applicants should submit their applications via <u>UCL Select</u> by **21 July 2019 – NB:** Please indicate clearly on your application that you are applying for this Scholarship ("**Physiological Computing**") under the scholarships section, tag, or in your personal statement. Also, please notify <u>Aeesha Adams</u> with your application number when you apply. Applications must include:

- 1. Contact details of applicant
- 2. A personal statement and separate **research proposal** (2 5 pages) describing the research question, a summary of some relevant literature, and an outline of the type of research to be conducted (including ideas about which methods would be appropriate).
- 3. Name and email contact details of 2 referees
- 4. Academic transcripts
- 5. A CV

Interviews with short-listed applicants will begin in August 2019.

Questions about the studentship can be made to Dr. Youngjun Cho (<u>youngjun.cho@ucl.ac.uk</u>) while queries about the application process can be made to Aeesha Adams: <u>aeesha.adams@ucl.ac.uk</u>.