

MobiESense

Co-design workshop for clinical research studies using bio-potentials in ‘in-the-wild’ settings

Thursday 16th May 2019 10:00 am – 4:30 pm
C60b/c, Infolab21, Lancaster University

Background

This workshop should be of interest to researchers and clinicians engaging in NHS and NIHR linked research, using bio-potentials like electrical brain activity (EEG), muscle activity (EMG), heart rate (ECG), and body movement to inform their research. Currently a high level of non-medical expertise is required to customize the user interface of this system for a specific research objective. The customization for a specific research problem, secure and reliable data collection outside clinical settings are major obstacles, which can frustrate innovative research strands.

The School of Computing and Communications (SCC), in collaboration with the Psychology department at Lancaster University, have created a smart-phone linked system ‘*MobiESense*’ that collects bio-sensing data outside clinical settings (i.e. “*in-the-wild*”). The system consists of an open-source bio-potential sensor capable of sensing EEG, EMG or ECG paired with a smartphone application. This system operates in non-clinical as well as clinical settings, thus enabling portable and customizable bio-sensing capabilities beyond existing systems used in medical research.

Influencing the future of MobiESense

MobiESense is currently used in medical psychology PhD research and supported by the NIHR Clinical Research Network in England for initial research into epilepsy. In partnership with iQ Digital Health Ltd, we wish to extend the availability of the system to individuals engaged in bio-sensing led research. Our intention is to lower the time and technical expertise required for using the biosensors to address a specific research purpose. To achieve this, we invite research staff, clinical leads, medical consultants, patients and other clinical research stakeholders to this workshop and contribute towards:

- a. Understanding different clinical research needs that can be benefited by using MobiESense
- b. Creating a framework of tools that assist in specific bio-sensing settings
- c. Identifying opportunities for improving user experience (researchers, clinicians and patients) while working with MobiESense.

This workshop provides participants with an exciting opportunity to explore MobiESense and provide valuable inputs towards improving the system to fit their needs. Through co-design activities, the workshop participants will help identify the key improvements for MobiESense. The participants will get another opportunity to trial the outcomes of their co-design effort in a subsequent showcase event in July 2019.

Organised by:

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Registration:

Workshop attendance is free but places are limited. Please register your interest here:
<http://bit.ly/MobiESense>

Updates and further info:

www.lancaster.ac.uk/staff/karnik/ws/mobiESense.html