Bandreader

A software solution for mobile devices that allows for data acquisition from wristbands.

Description

As technology becomes more ubiquitous and pervasive, special attention should be given to human-computer interaction, especially to the aspect related to the emotional states of the user. However, this approach assumes very specific mode of data collection and storage. This data is used in the affective computing experiments for human emotion recognition. In the paper we describe a new software solution for mobile devices that allows for data acquisition from wristbands. The application reads physiological signals from wristbands and supports multiple recent devices. In our work we focus on the Heart Rate (HR) and Galvanic Skin Response (GSR) readings. The recorded data is conveniently stored in CSV files, ready for further interpretation.

Releases

Public release coming soon, email us.

User guide

Installation

1. Download the Bandreader APK file.
2. Tap on the screen on the downloaded file.
3. Allow non-trusted applications to be installed.
4. Follow the on-screen instructions to enable such installation.

Usage

Issue tracking list

Please report any bugs, problems and requests for enhancement here or contact with Paweł Jemioło to ask your question.

Publications

Related papers include:

1. GEM 2018: *Emotion in models meets emotion in design: building true affective games* Barbara Giżycka, Grzegorz J. Nalepa, presented at the IEEE GEM conference
2. HAI 2018: *''AIded with emotions'' – a new design approach towards affective computer systems* Barbara Giżycka, Grzegorz J. Nalepa and Paweł Jemioło
3. HSI 2018: *BandReader – A Mobile Application for Data Acquisition from Wearable Devices in Affective Computing Experiments*, Krzysztof Kutt, Grzegorz J. Nalepa, Barbara Giżycka, Paweł Jemioło, Marcin Adamczyk, IEEE eXplore proceedigs coming soon, for now see conference page
4. ICAISC 2018: *Towards the Development of Sensor Platform for Processing Physiological Data from Wearable Sensors*, Krzysztof Kutt, Wojciech Binek, Piotr Misiak, Grzegorz J. Nalepa, Szymon Bobek
5. FedCSIS 2017: *Affective design patterns in computer games. Scrollrunner case study*, Grzegorz J. Nalepa, Barbara Giżycka, Krzysztof Kutt, Jan K. Argasiński

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