



Information Sheet

Benchmarking heartbeat detection algorithms under realistic conditions

Researcher: Dr. Bernd Porr
Investigator: Luis Howell
Contact: Bernd.Porr@glasgow.ac.uk
2123374h@student.gla.ac.uk

What is the purpose of the study? The aim of this project is to create an online, publicly available database of ECG recordings of realistic movement scenarios and to evaluate heartbeat detection algorithms with this data. This study will provide insight into how popular heartbeat detection algorithm are impacted by the contamination of noise in ECG recordings.

Why have I been chosen? You have been selected as a possible participant in this investigation because you are healthy and belong to the appropriate age group for the study (older than 18 years). A minimum of 15 volunteers are being sought.

Do I have to take part? It is up to you to decide whether or not to take part. If you decide to take part, you will be given this information sheet to keep and will be asked to sign a consent form. If you decide to take part, you are free to withdraw at any time and without giving a reason.

What will happen to me if I take part? A chest strap will be worn, and electrodes will be attached, this procedure is non-invasive. You will be asked to do 5, 120 second ECG recordings, 3 of which will involve physical activity: walking, jogging and using a hand bike. While you are performing the activity, if you consent, you will be videoed to add additional context to the data, this video will be anonymised. You will not require any preparation for the experiment. The experiment will take approximately 30 minutes.

Will my taking part in this study be kept confidential? There will be no personally identifiable data, therefore anonymity and confidentiality will be maintained. The ECG files will be given non-identifiable numbers and if you opt in to the video recording it will be anonymised by pixelating your face and removing the sound. At no point will participant names or other identifiers be used or associated with the ECG data or video.

What will happen to my data? Your anonymised data will be published on the universities' Open Access Database, available for anyone to access. This data will be used for testing and evaluating algorithms by other researchers. The data will be available for 10 years, when it will be deleted. Your data will also be used in the report for this project.

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