

Informed consent form for research participant's permission to take part in study

1. Project information

1.1 Title of research project: A biometric authentication system for laptops using speaker recognition.

1.2 Researcher details:

Wernich Bekker

Department of Electrical, Electronic and Computer Engineering.

Email: u15134092@tuks.co.za

Cell No.: +27 (0) 76 8640731

1.3 Research study description.

The biometric speaker recognition system is an advanced authentication system designed for laptops. The system uses a set of predetermined voice lines to train a model that is able to recognise users based on their voices, independent of speech. The system will, in real-time, use the speaker's voice and compare it to the known model and determine whether the speaker is registered to use the device. This could be used as an alternative to passwords to unlock a laptop, or in conjunction with other biometric authentication methods such as fingerprint scanners to improve accuracy.

Participants of this research study are required to record predetermined voice lines to be used to train the model. The voice lines will be stored in a password protected manner and encrypted. The participants' age, home language and gender will also be recorded to test the system's resilience.

There are no safety risk factors associated with the study but rather privacy concerns. These risks are mainly in the handling and storage of the personal data and information recorded for the study. To help protect the identity and privacy of the participants, pseudo-names will be used to identify users and the names of participants will never be published. The personal data collected will solely be used to assess the resilience of the system to accent and age dependencies. The results of these experiments will be published in a final report.

2. Informed consent

2.1 I, _____ hereby voluntarily grant my permission for participation in the project as explained to me by Wernich Bekker.

2.2 The nature, objective, possible safety and health implications have been explained to me and I understand them.

2.3 I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.

2.4 By signing this form, the undersigned participant acknowledges that participation in this study is at their own risk. The participant accepts that the researcher, the department and the University of Pretoria are neither responsible nor liable for any accidents or injuries that may befall the participant during this study.

2.5 Upon signature of this form, the participant will be provided with a copy.

Signed: _____ Date: _____

Witness: _____ Date: _____

Researcher: _____ Date: _____