

ISOT Mobile Keystroke Dynamic Biometric OTP Dataset - - Readme

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1 Overview

The ISOT Mobile OTP KD Dataset consists of keystroke dynamic data collected from users providing both a fixed password and an OTP during login. The general characteristics of the dataset are as follows:

- Number of subjects: 100 (male, female)
- Minimum number of samples/subject: 10
- Maximum number of samples/subject: 30
- Number of sessions: at least 2 sessions/user
- Device: Sony XPERIA smartphone

The same fixed password string was used by all participants while different OTP strings were generated for each user.

The specific data items for the fixed password and OTP are described below.

2 Mobile Fixed Password KD data

- Password: `_tie5Roanl`
- Keys: `_ t i e [123?] 5 [abc] [Shift] R[(Shift) o a n l`

The data collected for the fixed password are listed in the following table:

Feature name	Explanation	Number of features
Hold time or dwell time (H)	The time for a single key press and release	10
Release-Press time (RP)	The duration of the time interval between a key released and a key pressed	9
Press-Press time (PP)	The duration of the time interval between two keys pressed	9
Key hold pressure (P)	Pressure at the moment of key press	10
Finger are or size (FS)	Finger area at the moment of key press	10
Average hold time (AH)	Average of key hold times	1
Average finger area (AFS)	Average of finger areas	1
Average pressure (AP)	Average of key pressures	1

3 Mobile OTP KD Data

- Password: One-Time Password (**OTP**); different OTP string is displayed for each trial for each user.
- Keys: 6 digits (**OTP**)

The data collected for the OTP are listed in the following table:

Feature name	Explanation	Number of features
Hold time or dwell time (H)	The time for a single key press and release	6
Release-Press time (RP)	The duration of the time interval between a key released and a key pressed	5
Press-Press time (PP)	The duration of the time interval between two keys pressed	5
Key hold pressure (P)	Pressure at the moment of key press	6
Finger are or size (FS)	Finger area at the moment of key press	6
Average hold time (AH)	Average of key hold times	1
Average finger area (AFS)	Average of finger areas	1
Average pressure (AP)	Average of key pressures	1

4 Dataset Structure

The dataset is structured into 2 folders: OTP and Fixed Password. Each folder contains different CSV files, each corresponding to the data for a single user, and referenced using the user id: User 1_OTP, User2_OTP, etc, and User1_FP, User2_FP, etc. In each file, the data is contained in a table, where the rows correspond to the samples (i.e. row 1 for sample #1, row 2 for sample #2, etc.), and the columns correspond to the data items as listed above. The OTP and Fixed password samples, are synchronized, i.e., OTP sample #1 for User 1 corresponds to FP sample #1 for User 1, and so on.

5 Reference

To cite this dataset use:

Alshanketi, Faisal; Traore, Issa; Awad, Ahmed. Multimodal Mobile Keystroke Dynamics Biometrics Combining Fixed and Variable passwords . In: Wiley on Security and Privacy, August 2018 (accepted).