**The experimental procedures involving human subjects described in this work were approved under UTD IRB # 12-29 by the Institutional Review Board at the University of Texas at Dallas, Richardson, Texas, USA.**

**The Dataset consists of 7 trials for 20 subjects:**

1. First Relaxation: five minutes

2. Physical Stress: Stand for one minute, walk on a treadmill at one mile per hour for two minutes, then walk/jog on the treadmill at three miles per hour for two minutes.

3. Second Relaxation: five minutes.

4.1 Mini-emotional stress\*: 40 seconds (Note: This portion of the data, which was collected right before the cognitive stress task, is not explained in the paper.) During this 40 seconds, the instructions for the math portion of the cognitive stress (to count backwards by sevens, beginning with 2485, for three minutes) were read to the volunteer.

4.2 Cognitive Stress: Count backwards by sevens, beginning with 2485, for three minutes. Next, perform the Stroop test for two minutes. The volunteer was alerted to errors by a buzzer. The Stroop test consisted of reading the names of colors written in a different color ink, then saying what color the ink was.

5. Third Relaxation: five minutes.

6. Emotional Stress: The volunteer was told he/she would be shown a five minute clip from a horror movie in one minute. After the minute of anticipation, a clip from a zombie apocalypse movie, The Horde was shown.

7. Forth Relaxation: five minutes.

**Dataset Format:**

There are two .csv format files in each folder:

* SubjectNumAccTempEDA.csv: including 3-D Accelerometer, Temperature, and EDA (Fs=8Hz).
* SubjectNumSpO2HR.csv: including SpO2 and HR (Fs=1Hz).

\*Note: We had not originally intended to count the reading of the instructions to count backwards as an emotional stress. After all, instructions were given for each of the tasks. Unlike the other instruction sets, however, this one created a stress response in many of the volunteers that was obvious to the test administrator as the test was being given.

Subjects’ Information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subject ID** | **Age** | **Gender** | **Height [cm]** | **Weight [kg]** |
| 1 | 30 | M | 177 | 94 |
| 2 | 28 | M | 172 | 68 |
| 3 | 28 | M | 177 | 91 |
| 4 | 22 | M | 167 | 58 |
| 5 | 30 | M | 182 | 82 |
| 6 | 30 | F | 167 | 58 |
| 7 | 33 | F | 157 | 90 |
| 8 | 27 | M | 182 | 64 |
| 9 | 25 | M | 177 | 68 |
| 10 | 23 | M | 180 | 64 |
| 11 | 26 | M | 170 | 71 |
| 12 | 32 | F | 162 | 53 |
| 13 | 29 | F | 167 | 64 |
| 14 | 19 | F | 160 | 50 |
| 15 | 23 | M | 165 | 64 |
| 16 | 24 | M | 180 | 54 |
| 17 | 23 | M | 167 | 57 |
| 18 | 23 | M | 177 | 64 |
| 19 | 22 | M | 167 | 64 |
| 20 | 24 | F | 160 | 44 |