Table 1. S+F,T+W

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **1-layered AE** | | **Deep AE** | |
| Original data | Filtered data | Original data | Filtered data |
| **Jogging** | 0.574 | 0.603 | 0.685 | 0.672 |
| **Running** | 0.562 | 0.552 | 0.808 | 0.858 |
| **Walking down-stairs** | 0.604 | 0.56 | 0.785 | 0.825 |
| **Walking up-stairs** | 0.584 | 0.594 | 0.84 | 0.821 |
| **Walking** | 0.577 | 0.562 | 0.688 | 0.675 |

Table 2. S+W,T+F

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **1-layered AE** | | **Deep AE** | |
| Original data | Filtered data | Original data | Filtered data |
| **Jogging** | 0.814 | 0.83 | 0.696 | 0.656 |
| **Running** | 0.83 | 0.812 | 0.846 | 0.828 |
| **Walking down-stairs** | 0.813 | 0.839 | 0.813 | 0.788 |
| **Walking up-stairs** | 0.809 | 0.853 | 0.841 | 0.826 |
| **Walking** | 0.795 | 0.794 | 0.695 | 0.651 |

Table 3. All activities average. One-layered autoencoders

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **3AE (S+T, F+W)** | | **3AE (S+F, T+W)** | | **3AE (S+W, F+T)** | | **5AE** | |
|  | Original data | Filtered data | Original data | Filtered data | Original data | Filtered data | Original data | Filtered data |
| **Average** | 0.58 | 0.624 | 0.58 | 0.574 | 0.812 | 0.826 | 0.641 | 0.654 |

Table 4. All activities average. Deep autoencoders

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **3AE (S+T, F+W)** | | **3AE (S+F, T+W)** | | **3AE (S+W, F+T)** | | **5AE** | |
|  | Original data | Filtered data | Original data | Filtered data | Original data | Filtered data | Original data | Filtered data |
| **Average** | 0.668 | 0.704 | 0.761 | 0.77 | 0.778 | 0.75 | 0.864 | 0.861 |