Mean squared error results

GPS

Stable internet

|  |  |  |  |
| --- | --- | --- | --- |
| Test no. | Wi-Fi positioning MSE (m2) | Particle filter MSE (m2) | Improvement in MSE (%) |
| 1 | 389.6635 | 208.8813 | 46.59 |
| 2 | 72.7568 | 65.6395 | 9.78 |
| 3 | 137.3027 | 105.2355 | 23.36 |

Unstable

|  |  |  |  |
| --- | --- | --- | --- |
| Test no. | Wi-Fi positioning MSE (m2) | Particle filter MSE (m2) | Improvement in MSE (%) |
| 1 | 38114 | 894.0603 | 97.65 |
| 2 | 25056 | 350.4331 | 98.60 |
| 3 | 26837 | 330.1579 | 98.77 |
| 4 | 1398.7 | 47.5714 | 96.6 |

Pure Wi-Fi

Stable

|  |  |  |  |
| --- | --- | --- | --- |
| Test no. | Wi-Fi positioning MSE (m2) | Particle filter MSE (m2) | Improvement in MSE (%) |
| 1 | 389.6635 | 387.8529 | 0.46 |
| 2 | 72.7568 | 81.6513 | -1.22 |
| 3 | 137.3027 | 133.2645 | 2.94 |

Unstable

|  |  |  |  |
| --- | --- | --- | --- |
| Test no. | Wi-Fi positioning MSE (m2) | Particle filter MSE (m2) | Improvement in MSE (%) |
| 1 | 38114 | 23344 | 38.75 |
| 2 | 25056 | 20057 | 19.95 |
| 3 | 26837 | 22004 | 19.00 |
| 4 | 1398.7 | 15.6720 | 98.88 |