Virtual and Augmented Reality

pbqk24

March 14, 2019

Problem 1

Write a couple of sentences about the functional interfaces created and their inputs/outputs:

- Euler angle $\longleftrightarrow$ quaternion conversions

- Quaternion conjugate calculation

- Quaternion product calculation

The following functional interfaces were created:

Functional interface	Inputs	Outputs
Test	test	test

- Euler angle $\rightarrow$ quaternion conversion

    - Input:
    - Output:

- Quaternion $\rightarrow$ Euler angle conversion

    - Input/Output as above but swapped

- Quaternion conjugate calculation

    - Input:
    - Output:

- Quaternion product calculation

    - Input:
    - Output:

Problem 3

Alpha values and their effect on drift compensation for tilt correction.

Problem 4

Alpha values and their effect on drift compensation in yaw correction.

Problem 5

Include screenshots of orientation tracking results, and comment on the stability of each method.

Problem 6

Comment on what you see in the 3D plots of positional tracking results.