

Autopilot to maintain movement of a drone in a vertical plane at a constant height in the presence of vision-based navigation

Alexander Domoshnitsky¹, Max Kogan¹, Oleg Kupervaser^{1,2}, Roman Yavich¹

¹*Department of Mathematics, Ariel University, Israel (e-mail: adom@ariel.ac.il, maxko@ariel.ac.il, olegkup@yahoo.com, roman.yavich@gmail.com)*

²*TRANSIST VIDEO LLC, Skolkovo, Russia*

In this report we describe correct operation of autopilot for supply correct drone flight. There exists noticeable delay in getting information about position and orientation of a drone to autopilot in the presence of vision-based navigation. In spite of this fact, we demonstrate that it is possible to provide stable flight at a constant height in a vertical plane. We describe how to form relevant controlling signal for autopilot in the case of the navigation information delay.