

Dissertation Weekly Report

April 24, 2015

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Thesis: *Visual-Inertial based autonomous navigation of an Unmanned Aerial Vehicle in GPS-Denied environments*

1 Accomplishments

- Familiarization with the Hardware is now concluded.
- Integration of the Vanishing point detection algorithm in the Drone was concluded. The on-board camera now feeds the video to a remote computer which processes the acquired frames.
- It is now possible to control the movement of the drone at a lower abstraction level.

2 Difficulties

- The video stabilization modules that was previously developed proved to produced weaker results when applied to the video feed from the drone.
- Ordering the drone to move forward proved to be insufficient when we want the drone to move forward in a straight line. Sometimes the drone readjusts its yaw by itself.

3 Notes

- A meeting with the supervisor was scheduled for the 27th of April at 16:00 PM.