ABSTRACT

The development of electronic technology in the UAV field is growing rapidly and there are also many uses, such as following human objects for documentation and film. Currently, the technology of following human objects has been widely used by large UAV companies for one of its features for shooting images/videos from the air. Because sometimes drone users are not used to controlling it, this is where this feature plays a role because it can make it easier to follow objects automatically without being controlled by the pilot. In addition, this feature has the advantage of a stable and accurate way of flying when the feature is activated.

In this final project, a UAV with a quadcopter configuration has been designed that is stable and accurate using the following human object for documentation and film puropses and can be adjusted according to user needs with the help of Opencv,YOLO,COCO dataset as a human obejct detector. The first data is the flight time test which is obtained from 12.29 minutes to 12.45 minutes without a system, while using the system it takes 10.50 minutes to 11.40 minutes. The second data is a video recording test that was obtained with 5 trials and the result was 4.08 FPS. And the third data is the object distance accuracy test to get 96.82% accuracy results and 0.8% to 4.5% error rate.

Keywords *: UAV, Quadcopter, following human object, OpenCV, YOLO, COCO dataset.*