ABSTRACT

The interest and demand in drone are higher than ever. With this popular demand, new types of drone merchandise have been designed and manufactured, so that civilians can afford to buy them for various purposes. However, as it got easier for drone to be used by more people, safety and security issues have raised as accidents are much more likely to happen. For safety purposes, it is essential for observers and drone to be aware of an approaching drone. In this work, we introduce a comprehensive drone detection and classification system based on deep learning. Drone detection is performed using YOLOV2 and drone classification is performed using convolutional neural networks (CNN). Classified types of drones are Tricopter and quadcopter.

Keywords: *Drone detection, classification, YOLO, CNN, Deep learning*