

ABSTRACT

At this time the development of autonomous systems is used in system type rotary-wing vehicle. One of it's kind developed recently is quadcopter. Quadcopter is a flying vehicle with four motorcycles that is one of member of UAV (Unmanned Aerial Vehicle) or drones. Drones can be implemented for aerial photography, aerial mapping, carrying a payload and monitoring. However, there are disadvantages for aerial photography. They are a quadcopter still controlled manually by a pilot that using remote controll and also have difficulty to take a picture or video for moving objects.

Therefore, we invented autonomous quadcopter has abilities to follow me that integrated to android. So, the quadcopter can be controlled automatically using android application as a user interface that using a wireless module 3DR with frequency 433 MHz for it's communication, without using the remote control and can following a moving object by tracking the GPS (Global Positioning System) od Android device.

The results of this final assignment is motion control system of a quadcopter that integrated in the mobile monitoring system to facilitate the users for take a picture or video on a moving object use a smartphone automatically based on Android.

Keywords : autonomous, quadcopter, drones, follow me, GPS, Android