ABSTRACT

Mountain climbing is an activity that in recent times favored by teenagers and parents. But in practice, we often encounter the presence of cases of mountain climbers are missing. In searching for mountain climbers, search teams are still searching the mountain area manually, so it is not uncommon search teams encountered problems in searching. Mountain areas that are difficult to reach cause the search is difficult to do so it takes a long time and not infrequently requires a lot of money. Limitations of logistics materials at the time of search is a problem often experienced by the search team.

Based on these problems, the author in preparing the final project to provide solutions in the form of Quadcopter Drone that can be controlled via android application. This system sends commands to the quadcopter drone via radio frequency frequencies using a device called LoRa (Long Range). In addition to remote control, this system can also access the camera in the Quadcopter Drone and know the position of Quadcopter Drone is located.

Quadcopter Drone control system based on Android applications that have been built can communicate with Quadcopter Drones through the system at the ground station properly. The Lora module as a communication tool used by Quadcopter Drones and ground stations can communicate well up to a height of 250 meters, but for further testing it cannot be done because the quadcopter drones experience malfunction caused by several things and one of them is because the power supply is used when flying is not enough so that the quadcopter drone cannot maintain its position in the air and eventually falls so it is recommended to use a power supply with a greater capacity for further development.

Keywords : *Quadcopter*, LoRa, robot, Android *Application*, *surveillance*