

ABSTRACT

Underwater exploration technology needs innovation system starting from infrastructure until the platform that can be the connection bridge either its control. One of the platform that can be used for underwater exploration is the Remotely Operated Vehicles (ROV). ROV is controlled / moved manually or by operator using the cable media as an intermediary for ROV and Ground Control System (GCS). However, using cable has some obstacles, one of them is the limitation of access depends on length of the tether cable. It caused the limitation on the client party. An alternative solution usable for it is to divide the communication line of GCS and ROV into two network between wireless and wired. The system developed in this Final Project aims to help the delivery and accessing of data becomes more effective by creating connection between the ROV and GCS. The connection is a wireless that can transmit data from ROV to GCS and to ease access of multi client. Implementation of wireless access point applied to Raspberry Pi 3 is using application Hostapd. The testing result shows video data from wireless access point transferred to GCS with average delay 0.001495867 second in 26 meters distance.

Keywords: Robot Underwater Vehicles, Ground Control Station, Wireless