

ABSTRACT

VLC or Visible Light Communication is a communication technology system that make use of visible light as a media in communication between devices and has good potential to be developed by bringing information using light modulation in the visible spectrum (400-700 nm) in principle used for lighting. Utilizing visible light provides solutions and becomes a necessity for developing wireless communications.

Communication underwater is very important for divers to communicate in the water. In this final project, be expended a visible light communication for sending audio signal in the water. This visible light communication system consists of transmitter and receiver devices. But in this final only focus on receiver. Each test such as distance and reception angle and light intensity will be observed and evaluated in order to obtain the good results.

Communication underwater tested using laser 650nm and parallel red difuse LED light sensor assembled in parallel. Place outside the aquarium. The result of the maximum distance of parallel red difuse LED reception outside the aquarium is 2 cm with frekuensi 300 Hz until 20.000 Hz.

Keywords: Visible Light Communication (VLC), Receiver, Parallel red difuse LED, Communication in the water, Audio.