**ABSTRACT**

Remotely Operated Underwater vehicles or ROV’s are Underwater Robots that are used to interact with the underwater environment. These robots are designed to operate in places where it is dangerous or not accessible for divers to go for physical inspections or give information about the location pre dive session. Thus, a ROV is a required tool for search and rescue operations as well as in research, oil mining, and underwater filming. The robot is equipped with powerful sensors as well as dc brushless motors for steering as well as camera for live video footage. It transmits data to the base station via CAT6 internet cables using the RS485 module for minimal data losses and performs automated dive. The tilt control system, underwater dive and exploration are all controlled by Joysticks. The tools used in the developing process is Arduino (microcontroller) for reading and controlling all sensors data such as ultrasonic sensor and motor speed control in order to keep the vehicle stabilized and running.