

A PROJECT REPORT ON

OCEOVISIO

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ABSTRACT

The nature of the ocean environment and its vast size and depth has led to the development of sophisticated equipment and techniques for scientific and other study of the same. A wide variety of systems and vehicles have been developed to operate either within the shallow continental shelf region or in deep oceans. The traditional method to communicate with the sensor arrays on these underwater vehicles is to use an umbilical from a surface support ship, but this restricts the mover ability of the device and ultimately limits the depth to which the system can operate.

To solve it out a system should be defined that would accord to the environment described above. To define such a system the following main aspects should be kept in mind.

- Wireless visual data communication.
- Wireless control.
- Desired mover ability.

This system uses a camera to visualize and store the image in its memory and transmit the data in a buffering mode to a receiver. The receiver will process the data received and a receiver to USB interface is used to load the data into a computer. The GUI software of the interface unit process the data to the image information and can be used for the study.

The camera interfaced to the transmitting module, has high switching to transmitting rate which causes it to transmit the data in real time basis. The receiver interfaced to the computer, access the data and produce to the user in real time basis. A simple RF data transreceiving module is used to control the switching of camera “ON” and “OFF”. This solves the design aspect for a wireless control of data acquisition. The RF transreceiver defines when the camera should be ON and when to be OFF. This internal definition of the system is structured inside a metal sheet body that confines to be in a structure that would possess buoyancy to the system. The buoyant nature of the device will help it to pop out of water that will gain the feature of mover ability in the vertical aspects in regard to the air/water interface. The downward motion of the device will be structured by a thrust at its upper plane of the device. So as it is said it will meet up the main aspects for defining the system for an underwater surveillance wirelessly.