

The aim of this work is to create a device that remotely measures parameters of sea water quality. The quantities that are measured are the temperature, the pH and the turbidity, while there is also the capability of using additional sensors. Those values are inextricably linked to pollution and many phenomena in marine waters such as eutrophication, acidification, etc. The project consists of two main structural parts; the first includes a circuit of those sensors which is sealed in a container below sea level for a long period of time. The sensor readings as well as the exact geographical coordinates are transmitted wirelessly to the second circuit located on land which acts as a ground base. This layout is responsible for collecting and sending the gathered data to be plotted in graphs and be posted on a web page. Some experiments were conducted to simulate the phenomenon of acidification and the whole device was tested in a port. All in all, this project responds to the scientific question because it is able to monitor the measured parameters and their variation which evaluates the water quality but also makes it possible to timely identify hazards or possible pollution, etc. Finally, it is worth noting that this device can be used for research in several other aquatic ecosystems such as rivers and lakes.