

ABSTRACT

Human activities such as agriculture, industry, and urbanization apply noteworthy weight on water assets, driving to significant contamination. The essential issue addressed in this study is the inefficiency and risk included in current methods of water quality measurement for waterway sanitation laborers.

The solutions proposed in this study is the utilize of a remote-controlled boat (RC Boat) prepared with four sensors of water quality parameters: pH, Total Dissolve Solid (TDS), turbidity (NTU), and temperature. This innovation empowers the real-time and comprehensive collection of water quality information whereas guaranteeing the safety of workers by allowing them to stay in secure ranges.

The investigate discoveries demonstrate that this framework successfully measures water quality, in spite of the fact that there are a few result varieties that require encourage calibration. The average temperature sensor reading is 30.39°C with a variance of 0.016; the average pH sensor reading is 8,31 with a variance of 0.014; the average TDS sensor reading is 451,3 with a variance of 127,38; and the average NTU sensor reading is 47,35% with a variance of 0,0029. Generally, the use of remote-controlled boat can optimize river water quality observing and give much better establishment for decision-making in enviromental preservation.

Keywords: Water quality, remote-controlled boat, sensor, real-time checking