VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI– 590 018

AMICRO PROJECTREPORTON

"RC Underwater Exploration Drone "

Submitted By,

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DEPARTMENT OF MECHANICAL ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

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CERTIFICATE

This is to certify that the Micro-Project entitled "RC Underwater Exploration Drone " has been Successfully Completed

By

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The bonafide students of **Department Mechanical Engineering, Alva's Institute of Engineering and Technology,** affiliated to VISVESVARAYA **TECHNOLOGICAL UNIVERSITY, BELAGAVI,** during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been in corporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

Mr. G.B. Vaggar
Project Guide

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ABSTRACT

Water covers over 70% of mass on earth. There lies a vast unexplored land beneath the seas. Moreover underwater surveillance, videography plays a vital role in a wide range of applications. From dam and bridge inspections to fishing surveillance to sea life videography and oceanography underwater inspection is a very common need.

Also underwater inspection will help us to keep track of sea life conservation, pollution monitoring in seas as 50 to 80% oxygen we breathe is produced by sea planktons and other sea plants. Extensive damage to seas by pollution and overfishing can cause great damages cross the globe. So here we develop a underwater inspection drone that can navigate easily underwater and allow us to vide live video footage underwater.

.The drone consists uses the 2 motors to provide front drive as well as for left right direction control. The 3rd motor is used to control the vertical alignment of the drone. This motor in combination with other 2 motors is used to dive in or bring up the drone. All motors and controller unit is enclosed in a water proof chamber. The drone now uses a camera to capture footages underwater. These footages are transmitted to the floating buoy unit from there user can connect via wifi to check the footages. The system makes use of a raspberry pi controller for footage transfer as well as wifi transmission.

Also the buoy unit is used to pullout the drone in case it gets stuck or runs out of battery under water.