## VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590018



## Mini Project Report on

# "REMOTE CONTROLLED UGAV FOR WASTE DISPOSAL"

Submitted in partial fulfillment of the requirements for the award of degree

### BACHELOR OF ENGINEERING IN ELECTRONICS & COMMUNICATION ENGINEERING

#### **Submitted By**

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
Accredited by NBA & NAAC with A+ Grade
MOODBIDRI – 574 225.

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### ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

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# **CERTIFICATE**

This is to certify that the following students.

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has submitted Project synopsis on "REMOTE CONTROLLED UGAV FOR WASTE

DISPOSAL" for VI Semester B.E. in Electronics & Communication Engineering during the academic year 2023-24. The mini project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Mini Project Guide

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#### **ABSTRACT**

We have seen much advancement in unmanned aerial systems, and even in unmanned ground vehicles. Nowadays they are used for various purposes that may be military, or may be in space Research. We have seen concepts of all terrain drones, similarly this project is mainly about developing an unmanned ground and aerial vehicle with vacuum cleaner set-up, Currently, various robotic vacuum cleaners have been presented; however, they have focused on ground cleaning but when comes to the matter of stairs where current vacuum cleaner robots fail to fly over the stairs so we have come up with an idea to solve this problem by integrating vacuum cleaner set-up to Unmanned ground and aerial vehicle(UGAV) set-up.

We have developed a robot with Flying (Drone), Driving (Rover) and Sucking (Vacuum cleaner) applications and to control the activities through remote from distant places. The vehicle design can help users beyond a drone and rover since it is both integrated it can used to fly when required and can run over terrains as well, this lets the system save energy this lets system use energy effectively over long timeand the proper observation and proper task can be carried out using this vehicle. And as add on advantage we have implemented vacuum cleaner setup to our UGAV vehicle. This new setup helps individual in such a way that while moving on the floor it collects the dust and stores in a dust collecting box and it can fly to the place where dust should be disposed off.