

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama” Belagavi – 590 010



PROJECT REPORT ON

**“DRONE INVENTORY MANAGEMENT
FOR RESOURCE MAPPING”**

Submitted in partial fulfillment of the requirements for the award of degree
BACHELOR OF ENGINEERING IN
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Submitted By

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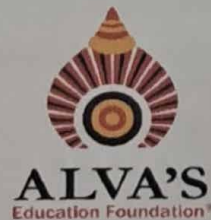
4AL20AI042

Under the Guidance of

Prof. HARISH KUNDER

Associate Professor & Head

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)

Affiliated to Visvesvaraya Technological University, Belagavi

Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

Accredited by NAAC with A+ Grade

Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka

2023 – 2024

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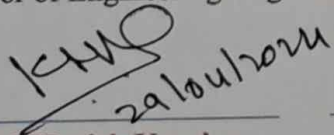


DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING CERTIFICATE

This is to certify that the Project entitled **"DRONE INVENTORY MANAGEMENT FOR RESOURCE MAPPING"** has been successfully completed by

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the bonafide students of Department of Artificial Intelligence & Machine Learning, Alva's Institute of Engineering and Technology in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.


Prof. Harish Kunder

Project Guide


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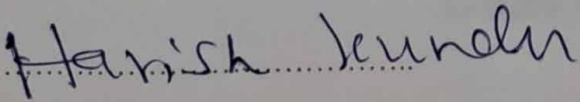

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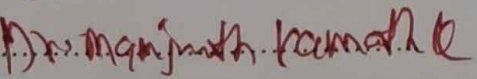
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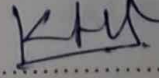

Alva's Institute of Engg. & Technology,
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i)  Harish Kunder

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 29/05/2024

29/07/24

ABSTRACT

Inventory management is a critical aspect of logistics and supply chain operations, with efficiency and accuracy being paramount. Traditional methods often face challenges such as manual errors, time-consuming processes, and limited scalability. This paper presents a novel approach to inventory management leveraging mini-drones equipped with sensors and communication modules. The architecture integrates drone flight control, sensor data acquisition, data processing, and inventory database management to enable real-time tracking and management of inventory items within a warehouse environment. A proof-of-concept implementation demonstrates the feasibility and benefits of this approach, showcasing how mini-drones can autonomously navigate warehouse spaces, collect inventory data, and update inventory records in a centralized system. The results highlight significant improvements in inventory accuracy, speed of data collection, and operational efficiency, paving the way for enhanced inventory management practices in modern logistics ecosystems.