VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590018

Mini Project Report on

"Farm to Table: Automating Fruit Yield and Sales Using ESP32-CAM and Telegram Bot"

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

BACHELOR OF ENGINEERING
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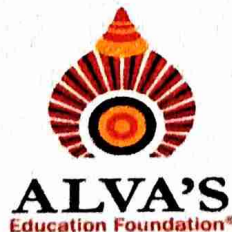### ELECTRONICS & COMMUNICATION ENGINEERING

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CERTIFICATE

This is to certify that the following students,

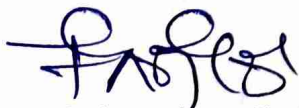|	
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has submitted Project synopsis on **"Farm to Table: Automating Fruit Yield and Sales Using ESP32-CAM and Telegram Bot"** for VI Semester B.E. in Electronics & Communication Engineering during the academic year 2023-24. The mini project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Mini Project Guide	Mini Project Coordinator	HOD
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ABSTRACT

This project, "Farm to Table: Automating Fruit Yield and Sales," aims to improve direct-to-consumer sales and streamline agricultural procedures. Utilizing Telegram Bot and ESP32-CAM," makes use of contemporary IoT and communication technology to build an effective, automated system for tracking fruit harvests and enabling their sale. This project combines a Telegram Bot with the inexpensive ESP32-CAM microcontroller, which has built-in camera capabilities, to provide farmers with a complete solution for managing and selling their produce directly to consumers. The system's goal is to take pictures of the fruit production in real time, which are then processed to determine how much and what kind of produce is produced. At predetermined intervals, the ESP32-CAM takes these pictures, which it then transmits to a cloud server where image processing software examines the information. Additionally, it enables farmers to handle orders, keep track of inventories, and get in touch with purchasers directly. The system seeks to decrease waste, cut labor expenses, and guarantee that fresh fruit is delivered to customers on time by automating these procedures. This project has the potential to significantly change traditional agricultural practices by providing small- to medium-sized farmers with direct

access to larger markets, negating the need for middlemen. By lowering the time and costs associated with manual monitoring and sales activities, the integration of IoT and communication technologies not only improves operational efficiency but also advances sustainable farming practices.

Key Words: Agriculture, Direct Sales, Image Processing, ESP-32 CAM, Telegram bot, IoT and sustainable.