VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

A PROJECT REPORT ON

"AUTOMATING SERICULTURE FARM"

Submitted in partial fulfillment for the award of Degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE & ENGINEERING

By

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CERTIFICATE

This is to certify that the project entitled **"AUTOMATING SERICULTURE FARM"** has been successfully completed by

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The bonafide students of **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2023–24. 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.

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ABSTRACT

This project aims to automate sericulture farming by integrating image processing techniques with sensor data analysis. The system utilizes a Convolutional Neural Network (CNN) algorithm for the detection of silkworm health and diseases based on images captured within the farm environment. Concurrently, temperature, humidity, and moisture sensors deployed throughout the mulberry farm provide real-time environmental data. These sensors are connected to a Raspberry Pi, which serves as the central processing unit for data aggregation and analysis. By combining image analysis with sensor data, the system offers comprehensive monitoring of silkworm health and environmental conditions crucial for their growth. This holistic approach enables early detection of diseases, allowing for timely intervention to mitigate potential losses. The integration of CNN-based image processing with sensor technology offers a scalable and efficient solution for enhancing productivity and sustainability in sericulture farming