VISVESVARAYA TECHNOLOGICALUNIVERSITY

JNANA SANGAMA, BELAGAVI

Project Report on

"PREDICTING THE QUALITY OF FRUIT USING MACHINE LEARNING"

A dissertation submitted in partial fulfillment of the requirement for the award of degree of

MASTER OF COMPUTER APPLICATIONS

Under

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Submitted by

KEERTHANA S N
4JN20MC013

DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

J N N COLLEGE OF ENGINEERING

NAVULE, SAVALANGA ROAD, SHIVAMOGGA, KARNATAKA - 577204

JULY 2022

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during the academic year 2021-2022under the guidance of

Internal Guide
Dr. Sunitha G P
Associate Professor
Department of MCA
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DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

SHIVAMOGGA-577204

CERTIFICATE

This is to certify that the project work entitled

"PREDICTING THE QUALITY OF FRUIT USING MACHINE LEARNING"

This is to certify that **Ms. KEERTHANA S N** having University Number **4JN20MC013** as apartial fulfillment for the award of Master of Computer Applications degree at J N N College of Engineering, Shivamogga, under Visvesvaraya Technological University, Belagavi duringthe year 2021-2022 under our joint supervision. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Master of Computer Applications degree.

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External Examiner: **Signature with Date**

1._____ _____

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National Education Society (R)

J N N COLLEGE OF ENGINEERING, SHIVAMOGGA

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Date:

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. **Keerthana S N** bearing USN:**4JN20MC013**, is a student of the department of Master of Computer Applications (MCA), at J N N College of Engineering, Shivamogga has done her 4th Semester Major Project work(20MCA44) in our college from 4-April 2022 to 4-July-2022.

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DECLARATION

I, **Ms. Keerthana S N** student of 4th semester MCA, J N N College of Engineering, bearing USN **4JN20MC013** hereby declare that the project entitled **"Predicting the Quality of Fruit using Machine Learning"** has been independently carried out by me under the supervision of Internal Guide **Dr. Sunitha G P,** Dept. of MCA, JNNCE, Shivamogga and submitted in partial fulfillment of the requirements for the award of the degree in **MASTER OF COMPUTER APPLICATIONS** by the Visvesvaraya Technological University during the academic year 2021-2022. This report has not been submitted to any other Organization / University for any award of degree or certificate.

Keerthana S N

Place: Shivamogga
Date : 15.07.2022

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KEERTHANA SN

ABSTRACT

Fruit recognition and checking the quality of fruit is beneficial for industrial purpose to identifying the fruit name and quality of the fruit. Using this technique, they can easily check the status of fruit like the fruit is low, medium and high ripen. This gives the fruit is ripen or not. Fruit quality is determined period of practical helpfulness in advance giving a price for fruit, quality checking and examining the fruit have more significance in several phases in process. The collected data from the test and train is by ML technique and the information is stored in storage. Automate improves the nation's production, sustainability, and income development in agriculture science subjects. When the qualities of fruit are high customer will buy the fruits. Whereas humans are capable of doing the evaluating as well as classifying but it is disagreeing, hour consuming, varying, individual, difficult, high cost and simply effected by environment. Accordingly, a quick fruits checking method is required. The several algorithms are used to recognizing and status checking was done by several tester used web and trained data. This presents a complete review of several techniques i.e., processed the image, acquisition, pre-processing, segmenting, extracting, classification this classify fruits quality based on colour, dimension, structure, figure and defect. This research is a serious evaluation which has been carried out to test several algorithms that researchers have developed for fruit value inspection. To classify the fruits using the Convolutional Neural Network.

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