

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**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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**4JN20MC013**

*during the academic year 2021-2022 under the guidance of*

**Internal Guide**

**Dr. Sunitha G P**

Associate Professor

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**SHIVAMOGGA-577204**



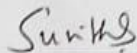
**CERTIFICATE**

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 a partial fulfillment for the award of Master of Computer Applications degree at J N N College of Engineering, Shivamogga, under Visvesvaraya Technological University, Belagavi during the 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.

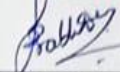
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Date:

**TO WHOM SO EVER IT MAY CONCERN**

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## DECLARATION

I, Ms. Keerthana S N student of 4<sup>th</sup> 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.

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## **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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