

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama” Belagavi – 590 010



PROJECT REPORT ON “ESTIMATION OF DURABILITY OF RICE CROPS USING SENSORS”

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

**BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted By

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225.

2018-2019

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI - 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "ESTIMATION OF DURABILITY OF RICE CROPS USING SENSORS" is a bona fide work carried out by

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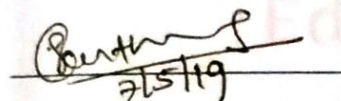
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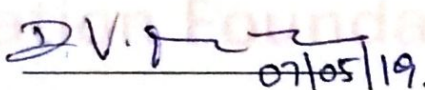
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in partial fulfillment for the award of BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2018-2019. It is certified that all corrections/suggestions indicated 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.



Signature of the Guide

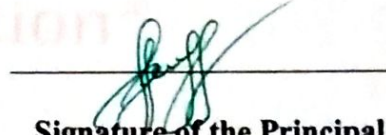
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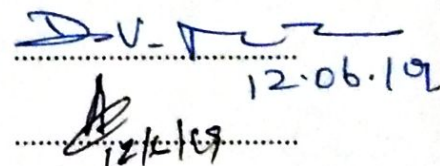
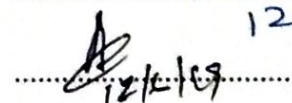
EXTERNAL VIVA

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Signature with date

 12.06.19
 12/6/19

ABSTRACT

Rice is one of the leading food crop in the world. It is also the most important food crop for millions of small farmers who grow it on millions of hectares throughout the region. Post harvest loss is a worldwide problem. The rice after farming is packed in huge sacks and stored in warehouses for months. It becomes very difficult to deal with the quality of the rice crops. During storage, a number of physicochemical and physiological changes occur, which are collectively termed aging, including changes in pasting properties, colour, flavour and composition, which all affect rice quality. Due to the prolonged storage, humidity causes worms to develop which reduces the quality.

Currently there is need for a system which is real time and which should automatically read the data, monitor it and actuates the environmental conditions inside the storage room according to it. Hence the main objective of the proposed model is to control the environmental changes inside the storage room to retain its quality. Durable Humidity and Temperature sensor (DHT11) is used to sense the humidity and temperature value, peltier device is used to automatically control the heating and cooling effect in the warehouse and thus actuates it to favorable conditions. Global System for Mobile (GSM) communication module is used for regularly updating the farmer about the warehouse conditions. The temperature and humidity values are also being updated to the server using the WiFi module. This helps the farmers in trading purpose.