VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA CAMPUS, BELGAVI-590018

PROJECT REPORT

On

"PLANT DISEASE PREDICTION USING ATMOSPHERIC CONDITIONS"

Submitted by

HARSHITHA K O	4AL15IS011
POOJA R	4AL15IS024
POOJA T S	4AL15IS025
SAMEEKSHA HEGDE	4AL15IS036

In partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

In

INFORMATION SCIENCE AND ENGINEERING

Under the Guidance of

Mr. SUDHARSHANA. K

Senior Assistant Professor

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

Moodbidri-574225, Karnataka

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ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MIJAR, MOODBIDRI D.K. -574225

KARNATAKA

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the project work entitled "PLANT DISEASE PREDICTION USING ATMOSPHERIC CONDITIONS" is a bonafidework carried out by

HARSHITHA K O	**4AL15IS011**
POOJA R	**4AL15IS024**
POOJA T S	**4AL15IS025**
SAMEEKSHA HEGDE	**4AL15IS036**

in partial fulfilment for the award of BACHELOR OF ENGINEERING in **INFORMATION SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM** 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.

Mr. SUDHARSHANA K	**Mr. JAYANTKUMAR A. RATHOD**	**Dr. PETER FERNANDES**
Project Guide	**Head of the Department**	**Principal**

H. O. D.
Dept. Of Information Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.

Name of the Examiners **Signature with Date**

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ABSTRACT

Agriculture, a scientific discipline and skillful activity of cultivating flora and domestic animals. One of the major employment sectors of India is agriculture. It is the pillar of Indian economy and subsidizes to the whole financial succession of the country. To improve quality of farming an Internet of Things (IoT) based system can be recommended. An IoT system consists of actuators and, or sensors, or both that affords connectivity to the internet directly or indirectly. In this paper, a novel system is developed using various sensors- like soil moisture sensor, Temperature sensor, Humidity sensor and Gas sensors- for detecting occurrences of fungal diseases on a chilly plant. The parametric values are fetched from sensors, which are deployed in the farm and data are transmitted to Arduino Uno (Microcontroller) through wired network. In Thing speak-a cloud platform- where the filtered data is verified and matched with trained data- like temperature value, humidity value, Gaseous concentration and soil moisture value for the prediction. If disparity occurred with respect to predefined threshold value, then notification is sent to the farmer either as a SMS on to the mobile or through push e- mail on to the inbox of the farmer with disease control counter measures.