A Project Report

On

FEATURES IDENTIFICATION FOR GROWTH OF CERTAIN CROPS IN INDIAN AGRICULTURE

Submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM, KARNATAKA- 590018

In partial fulfilment of the completion of Eighth semester

Bachelor of Engineering

in

Information Science and Engineering

By

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CERTIFICATE

This is to certify that the project entitled **"Features Identification for Growth of Certain Crops in Indian Agriculture"** has been successfully completed by

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the bonafide students OF **DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING, Alva's Institute of Engineering and Technology**, Moodbidri affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the academic year 2020–21. 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 in partial fulfillment of awarding Bachelor of Engineering degree.

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ABSTRACT

In India agriculture is the main source of employment and contributes approximately 20% of GDP with an employed workforce of 41%. India is the second-largest producer of agriculture crops which contributes to the Indian economy and also a major source of raw materials. In order to have good income, farmers must know the crop to be grown for a particular region and time. Common predictions would not work in the present situation because of the changes in the climatic conditions. The technological contribution may help the farmers to get more yield. The research focuses mainly on South Indian agricultural crops from Karnataka, Kerala, Tamil Nadu and Andhra Pradesh. The dataset is resourced by gathering data from Kaggle and climate-data.org.

The crop cycle for summer, kharif, rabi, autumn and the whole year is used. The experimental parameters considered for study are cultivation area, crop, state, district, season, year, rainfall, soil pH and temperature Machine learning is the domain which helps for such prediction. In that we have used Random Forest Regressor to predict the crop based on the parameters entered by the user along with other crops suitable for that region. The concept of this paper is to implement crop selection method by identifying the features responsible for growth in order to help farmers with their production.