AGRICULTURE FIELD CLASSIFICATION USING MACHINE LEARNING

A PROJECT REPORT

Submitted by

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We hereby declare that the work entitled "AGRICULTURE FIELD CLASSIFICATION USING MACHINE LEARNING" is submitted in partial fulfillment of the requirement for the award of the degree in B.TECH, in University college of Engineering, BIT Campus, Anna University, Tiruchirappalli. It is the record of our own work carried out during the academic year 2018-2019 under the supervision and guidance of **Dr. D. ASIR ANTONY GNANA SINGH**, Teaching Fellow, Department of Information Technology, University college of Engineering, BIT Campus, Anna University, Tiruchirappalli. The extent and source of information are derived from the existing literature and have been indicated through the dissertation at the appropriate places.

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ABSTRACT

Agriculture is the backbone of human sustenance on this world. Now a days with growing population we need the productivity of the agriculture to be increased a lot to meet the demands. Agriculture field classification plays a significant role in improving the productivity of agriculture product. This project present agriculture field classification using machine learning algorithm. The proposed system is developed using two phases namely image feature extraction machine learning (predictive model) model development. In order to extract the feature from the agriculture field images local binary pattern is used. For the construction of predictive model, the decision table algorithm is used. Moreover, the proposed system is tested on a wide range of field images with cross validation method. From the experiment, it is observed that the proposed system produce better accuracy, than the other methods compared.

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LIST OF ABBREVIATION

| S.NO | ABBREVIATION | EXPLANATION |
|------|---------------|---------------------|
| 1 | Random Forest | DECISION TREE |
| 2 | NB | NAIVE BAYES |
| 3 | TP Rate | TRUE POSITIVE RATE |
| 4 | FP Rate | FALSE POSITIVE RATE |
| 5 | MCC | MATTHEWS |
| | | CORRELATION |
| | | COEFFICIENT |
| 6 | ROC | RECEIVER OPERATING |
| | | SYSTEM |
| 7 | PRC | PRECISION RECALL |

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