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PREDICTION OF CROP YIELD & WEATHER FORECASTING IN FARMLAND USING SENSOR DATA

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ABSTRACT : In India, agriculture is the primary source of income. India's financial system is so reliant on agriculture, so there is a pressing need to boost agricultural output generally. Soil is the most important natural resource in agriculture which in turn requires to monitor the soil quality with urea and phosphorous level efficiently for the suitable crop yield. Nutrients such as and Phosphorus present in the soil influence phosphorous level of the soil. Farmers who begin cultivating crops after finding a phosphorous and urea level will result in better crop yield. To address this problem, the proposed method determines the factors such as phosphorous value using phosphorous sensors, temperature and humidity of the soil using DHT11 sensors. After finding out the results of this, will be more helpful for the farmers to begin the cultivation in their farmland for better yield. In addition to that we use a GPS location monitoring for the prediction of weather report in a particular farmland and recommendation of the better crop for particular farmland based on the above factors we determined using the sensor data.

KEYWORDS : **GPS location monitoring, phosphorous sensors and sensor data.**

I. INTRODUCTION : In India, agriculture is the primary source of income. India's financial system is so reliant on agriculture, so there is a pressing need to boost agricultural output generally. Soil is the most important natural resource in agriculture which in turn requires to monitor the soil quality with urea and phosphorous level efficiently for the suitable crop yield. Nutrients such as and Phosphorus present in the soil influence phosphorous level of the soil. Farmers who begin cultivating crops after finding a phosphorous and urea level will result in better crop yield. To address this problem, the proposed method determines the factors such as phosphorous value using phosphorous sensors, temperature and humidity of the soil using DHT11 sensors. After finding out the results of this, will be more helpful for the farmers to begin the cultivation in their farmland for better yield. In addition to that we use a GPS location monitoring for the prediction of weather report in a particular farmland and recommendation of the better crop for particular farmland based on the above factors we determined using the sensor data.