REVIEW ON IOT BASED SMARFARMING

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ABSTRACT: This work aims to show how to manage heterogeneous information and data coming from real datasets that collect physical, biological, and sensory values. As productive companies— public or private, large or small—need increasing profitability with costs reduction, discovering appropriate ways to exploit data that are continuously recorded and made available can be the right choice to achieve these goals. The agricultural field is only apparently refractory to the digital technology and the "smart farm" model is increasingly widespread by exploiting the Internet of Things (IoT) paradigm applied to environmental and historical information through time-series. The focus of this study is the design and deployment of practical tasks, ranging from crop harvest forecasting to missing or wrong sensors data reconstruction, exploiting and comparing various machine learning techniques to suggest toward which direction to employ efforts and investments. The results of related work till now show how there are ample margins for innovation while fulfilling demands and needs made by businesses who want to use an agro industrial business that is sustainable and optimised, investing not just in technology but also in the knowledge and experienc ed personnel needed to get the most out of it.

Keywords: crop prediction, iot, temperature sensor, java, android, etc

I.   INTRODUCTION

Agriculture field is the backbone of any country. Agriculture supplies the food and raw materials to the people in country. It is the only income source of many peoples. Peoples who belongs with

agriculture field faces many problems such as decreasing production due to unsuitable climatic changes, flood, dearth and many other natural reasons and rarely factors. They are unable to do agriculture due to this reasons. We can use Information Technology (IT) to overcome this problems. In today's life Information Technology is used in every field worldwide. The Data Mining is a part of IT which we can use to solve agriculture problems mentioned above. The basic idea of the Data Mining is that it generates useful information by extracting from large datasets. To be more accurate, it is a technique of extracting useful information from large amount of data. It is the practice of automatically searching large stores of data to discover associations and trends that go beyond simple analysis. Data mining can answer questions that cannot be addressed through

simple query and reporting techniques. In this project, we present a system that can be used to decide the suitable crop for sowing. We are using the web based system to extract the required result from web. We are using Weather Forecast Report, Soil and Land use survey of India, Soil Report survey, crop survey as databases. System for Agriculture Recommendation using Data Mining is based on the following steps:

1. Registration of a farmer to the system. This registration can contain his username, password, name, address, land details like Altitude, Latitude and Longitude, contact information such as phone number and mailing address.
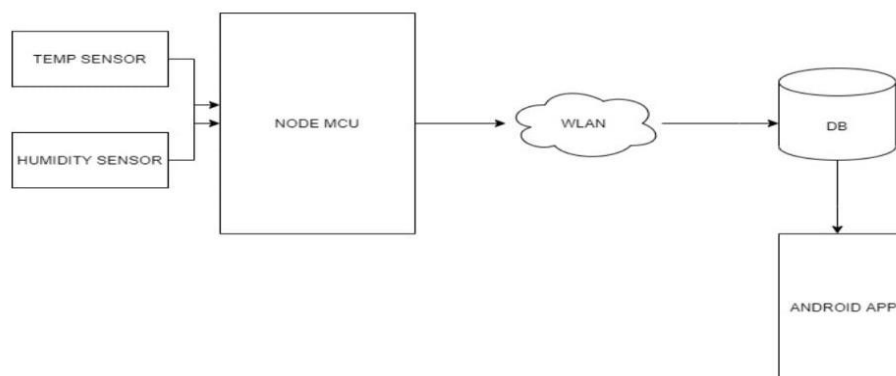
II.   METHOD

Fig 1. Proposed System

Our proposed system will have three modules:

☐ Farmer

☐ Consultant (Expert)

☐ Admin

☐ Back End (Data Mining)

Admin:

☐ Admin is having pre defined username and password.

☐ Admin can log in to the system and can add the consultant.

☐ Admin will assign username and password to consultant.

☐ Admin will have other general rights as to view number of users, their details, etc.

Consultant:

☐ Consultant is the expert in agricultural field .

☐ Consultant will resolve the queries of the farmer in his area.

Farmer:

☐ Anyone can register and can become a part of the system as a farmer.

☐ Farmer have to fill up one form after registration with the details like environmental factors, his last crop, his area, and some other parameters.

Back End:

☐ The parameters entered by farmer will be compared with the predefined parameters and the system will give the suggestions to the farmer about which crop will be most suitable considering his geographical area and environmental parameters.
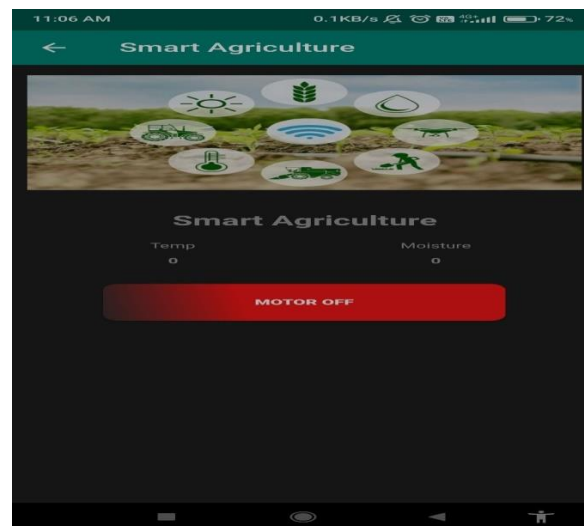
2.1 OUTPUT

Fig 2. Output Page

III.   CONCLUSION

We may conclude by saying that providing farmers with the best crop recommendations would undoubtedly assist to enhance crop yields and also to improve the economic standing of nations that rely heavily on agriculture.

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