Automated E-Farming Based On Prediction

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Abstract : In some of krishi countries peoples are having insufficient knowledge about revolution of ICT in agricultural sector . Agriculture plays an important role in Gross Domestic Product (GDP). In previous system farmers get short mandi rates, crop information through internet. But they can't get the enough information related to farming . In proposed system interaction between ICT and farmers made through icons and familier with android . In this system, there will be panel for government notification also weather forecasting panel and one loan panel which views complete loan description. The main concept is that production prediction of crops.

Keywords —Android , Customized algorithm , Prediction , ICT , Farming , Agriculture , Icons .

I. INTRODUCTION

In India, states like Maharashtra, Rajasthan etc. Farmer suicides still continue due to water crisis. Most semi-illiterate people like- Farmers are blindly takes the loan from bank but they are not aware about what are the deadlines of loan payment. In our system there is one bank loan panel in which there having bank party login. They views the entire farmer details as a clients and view the loan description, there pending dues and date of payment also they views the list of farmers whose EMI is given next in some days. So, the farmers are periodically aware about their loan description.

In developed countries, farming is done through very advanced processes. On the other hand, our country is making very little headway against the current technological advancement. Still, the crop cultivation is a long manual process in our country. The automated process of farming is the beginning of a new era in India that will be suitable for the farmers who seek experts to take suggestion about the appropriate crop on specific location of their land and don't want to forget any step of the cultivation throughout the process.

II. RELATED WORK

In paper "Krishi-Bharati: An Interface for Indian Farmer" studied that Nowadays, advancement of ICT make possible to gain almost any information from the global cloud (internet). Farmers require information at the right stage of life cycle of farming to take enough decision. Due to illiteracy they cannot get information. This paper states that user can interact with the system through the icons and result back with their intended agricultural information in Indian language text and spoken forms both. After selecting the icons, the icon to natural language generation module convert the selected icons to text in Indian language. Then keyword extractor module extracts the proper Indian language query.

In paper "Icon Based Information Retrieval and Disease Identification in Agriculture" Most of farmer are illiterate that's why they are not able to use internet for possible remedies of their infected crop s. This paper discusses mainly two features one with an iconic interface where farmer can interact easily and in return system will return in native language. Another feature is an image processing technique in that farmer has to upload image of disease d crops and result will show disease name and possible solution for infected crop.

Referred another paper "Expert system Design and Architecture for farming sector ".It gave the idea about how to choose the appropriate crop by analyzing the soil quality. Based on the soil quality, it chooses the appropriate crop. it also gave the big factor the weather forecast and the general pattern of weather for that region.[9].

In paper "A Model for Enhancing Empowerment in Farmers is using Mobile Based information system" states that farmer s which are living in villages rural areas do not have proper access of information to make decisions related to farming, they use mobile phones to communicate using internet. It provides personalized information with the aim of empowering them to make appropriate decision and actions [10].

III. EXISTING SYSTEM

There is no as such an existing system which uses the previous data from farmer under certain rules and tries to analyses the previous history of data, so based on that it work. There is one application e-mandi which is under the banner of Indian government, where it works in similar fashion like showing up the rates of all crops all over the

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cities giving an idea about the rates to all farmers using that application.

IV. PROPOSED SYSTEM

In the proposed system, we have included a feature of weather forecasting which will help all the farmers to work according to weather prediction and get a fruitful result. With respect to this farmer got an amazing option of predicting the future lines of production based on previous data and history populated in the system. So system will gain knowledge about the process and in s outs once farmer feeds in their previous experience.

Aslo by taking the sample of soil ie.which type of it is based on that farmer can take the right decision which crops should be taken this year .As per previous if it fails then this time it should be neglected and another one is preferred.

V. SYSTEM OVERVIEW

In this System, there are various panels that described in brif as follows:-

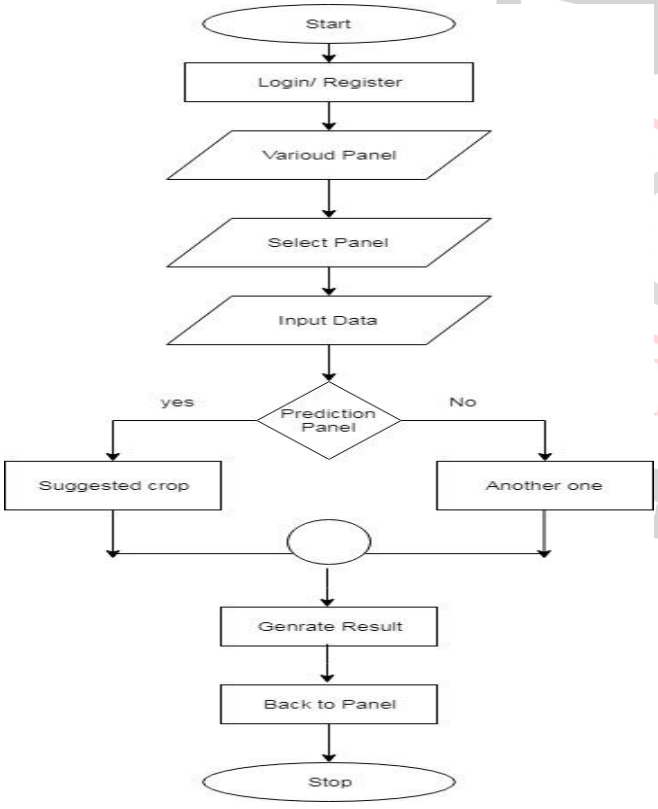

Fig 1. Main system module overview

A. User registration and login

Every user has to register into this application and use the same credentials for login into the application. Once they login they get an option of different features to use inside the mobile application as well as through the web panel. In this login should be unique as per the guidelines.

B. Various Panel

User login has a different set of features in it, they can view the complete details from start to end the complete description and calculation .Also it gives the total view of the system structure.

C. Farmers Notification Panel

In this farmers will get to view all the notification and valuable information passed on by government panel, so it plays an important role in filling up the gap between government and rural farmers.

D. Weather and Crop rates

Using the API or plug-in which are available, we can work on showing the weather information and crop rates at different areas and cities. Using this information, they will get an idea about future work on process.

E. Prediction of system

This is main component of the system module where it does the prediction based on certain criteria, like weather condition, soil and crops to grow so based on these and past values or previous system will analyze weather it can be fruitful for the farmers to go ahead with same structure or not. So there will be an option for all farmers to feed in their own experience about past so that system uses those values and information and work on it

F. Admin bodies Login

They will have a different login credentials to login into the application. Once they login into it through a web panel there is option to feed in the new notification and instruction which gets displayed on the other end to users end. They can also view all their previous feeds and notification in case they want to edit or delete the entry of that message.

G. Loan Login

Just like admin bodies even loan section will have a different login and they can view all the users as a client and their details. Their loan information, pending dues and date of payment. They can get the list of farmers whose EM I is to be given next in recent days.

VI. CONCLUSION

Being dependent on agriculture for a long time, our country has not seen much collaboration between technology and agriculture so far. There are some websites and also a few mobile applications already in use, for agriculture in this country. But we aim at a future where almost everyone uses a smart phone. We intend to make cropping prediction and full details of farmers loan by getting full access on their EMI.

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