

Agriculture Management for Farmers Support Over Cloud Fashion

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Abstract: Cloud computing technology is very helpful for the farm management in the way of giving proper analysis and management of agriculture fields. Agriculture in large areas required widely management and proper maintenance infrastructure. In this paper infrastructure, land crop and all the resources which is required for the farming will be evaluated and the status of each variations for every variable will be transferred. This communication will happen over internet and a variety of technology factors which provides the information to be updated, those information will help farmers to increase productivity and less efforts. Cloud concept help to store the information which is related to the farming.

Asian Journal of Engineering and Technology Innovation

Volume 4, Issue 7

Published on: 7/05/2016

Cite this article as: Shijo M Ulahannan. Agriculture Management for Farmers Support Over Cloud Fashion. Asian Journal of Engineering and Technology Innovation, Vol 4(7): 40-42, 2016.

INTRODUCTION

Agriculture is the important factor that affects Indian economy and most of the Indian people life depends on the agriculture only. Based on the methods which we used, agriculture can be divided into two parts such as farming and planting. Agriculture is depends on a variety of factors in season ways. Varying seasons and climate make the farmers to cultivate different crops. Natural factors like rain, soil, sunlight and system which used for cropping are all the dependent factors of farming. Land will be in one format and farmers need to make it to the proposed form which is sufficient for the proper crop grow thing and irrigation or water supply should be proper and time managed for good growth and well productivity.

IoT (Internet of things) is an important concept and which has been initiated and presented during the year of 1999. In this case the concept can be implemented and the effort will give the good result based on a number of factors which supports the implementation. In this concept hardware which giving well performance and the devices those having less price are the dependent factor. These all are the factors will contribute together and the communication which will be sending over the internet and the farmer can be able to do the management and he can make harvesting to be easy. Monitoring is an advantage feature and a monitoring technique helps the owner to keep on knowing the updated condition of land. Based on the updating owner can make the necessary management in time.

Farming management which makes the productivity and quality to be increased and those will be based on the management of farming, system monitoring and timely distribution of various ingredients. Cloud based architecture enables the owner to understand about soil condition and the crop status in various levels of growth. Day by day data will be stored as information and it will increase the volume of storage per day. So storage device need to be upgraded, here in this situation cloud gives storage facility and infrastructure management. Cloud provides a variety of services which would be effective and cost effective and intelligent management system improves productivity and business creation.

RELATED WORK

Different work have been already done related to the farm management till, even though the proper guideline which help for higher productivity and good monitoring is still in the testing stage. Some systems which using cloud services and some of them which do not use any cloud services make the limitation to the management of farming.

Cloud based Cultivation Management System ^[1]

In this method cloud services is used and the device which used for implementation is microcontroller, embedded system and a variety of sensing devices. Those devices give the updating about land and it will help the land owner to take the necessary actions. But in this implementation, the information about land conditions is shared over internet only through limited ranges. So it's very difficult to the land owner to stay within the limited range every time to make the proper crop management. But it allows the land owner to make the required changes of action based on the land updating when he is in the range of messaging.

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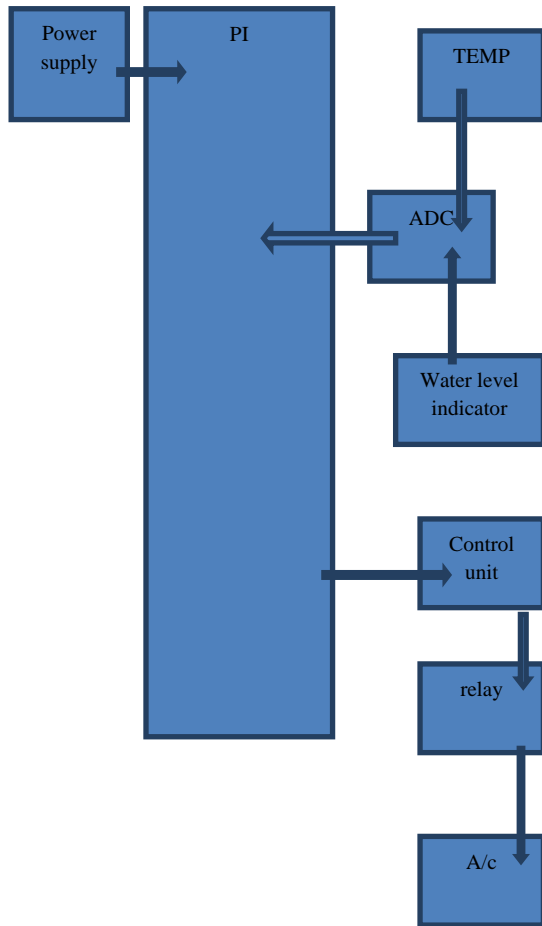


Figure 1: Farm Management Architecture

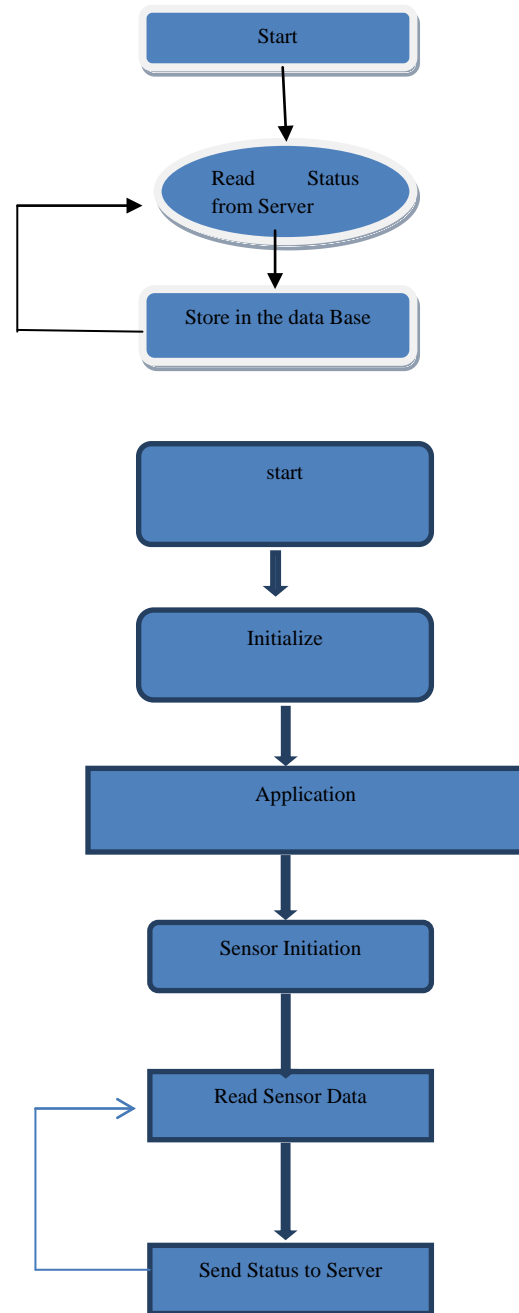


Figure 2: Flow diagram: Farm Side

Green House Automation Using Zigbee and Smart Phone ^[2]

Embedded systems configured with microcontroller for land management updating and wireless technology (zigbee) which used to transfer the data to the land owner and team viewer software enables the user to monitor the updating. In this technique which enables the updating through sms and according to that owner can make necessary steps for land maintenance. In this method a smart phone which will be correlated or synchronized with the monitoring tool and the attached web cam enables the land owner to change the resources availability based on the update which is received, and those work can be performed like real time working using web cam implementation. In this process it can be

implemented in small area because a greenhouse will be usually small as compared with acres of land.

Innovative GSM Bluetooth Based Remote Controlled Embedded Systems for Irrigation ^[3]

This system which used for irrigation when land becomes dry or it makes the owner to aware if the land becomes wet more than it required. Embedded technology which sends information about soil condition to the land owner through wireless communication such as Bluetooth or GSM technique. In this case the process will be enabled and desired range of distance becomes as a barrier if the irrigation is not automated. The owner has to make all the process manually and which

makes time to be wasted and if its automated all the process will be carried out based on the requirement of water condition in soil.

Towards a Hybrid Local-Cloud Framework for smart Farms ^[4]

In these studies, based on the growth of farming there are plenty of farmers inventing farms. Increasing number of farms required more security for their data and cloud which used here will provide the same and it will reduce the farmers complexity for accessing their own data's at any time. Based on the farm size such as small farm it will act locally and for smart farm it will be in cloud format .And in this method, interaction between external services is an advantage and any user can access it any time.

PROPOSED SYSTEM

In this paper I am proposing a method of farm management which includes sensing and analysis of wet, dry, temperature and various attacks which caused by wild animals in the land, etc. All the soil conditions will be evaluated by using different sensors and those sensors will be sending the information to the land owner through internet. Sensors will be controlled by a microcontroller named Raspberry PI. Sensors belong to water level indicator and moisture analyzer. An SD card will store the data and the data will be monitored through a monitor.

Power Supply which enables the PI to be in ON condition and this will help to receive the various sensor updates about soil .Based on the update controller makes the relay initiate a/c device to turn ON or OFF. In the case of lighting sensor which makes the lights to be on when land become darkness, such as it automatically gets ON by sensing sensor .Another one important feature is that here is a vibrating sensor, it's an animal prevention method that the device will produce the

alert when any animal comes into the land. When we connected

this service with the cloud, cloud provider gives an IP address that will help the land owner to monitor data about land. This required an internet connection since the web page will produce the monitoring processes.

CONCLUSION

In this paper farmers are able to manage their land easily and the data of analysis will be stored in cloud .Cloud offers well security and a verity of services to the farmer's .Time based management helps to increase the productivity and sensor device output will send to the land owner through SMS.SMS service make the land owner to be aware about his land if he is far from the land also, this enables multitasking for farmers. All process is automated here, so need not be manual management for anything is required.

REFERENCES AND NOTES

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