

Smartfarmer-IoT Enabled Smartfarming Application

(*Category: Internet Of Things*)

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Abstrtact

Smart agriculture is a farming system which uses IoT technology. This emerging system increases the quantity and quality of agricultural products. IoT devices provide information about nature of farming fields and then take action

depending on the farmer input. The conventional methods in agricultural practices have become grossly inadequate to cater to the increasing needs.

This paper proposes a smart farming system in a limited, enclosed area wherein different sensors are strategically positioned to measure parameters such as moisture content, temperature, pressure, light intensity and pH of the soil. This is devised in such a way that it could be setup by any individual at minimum cost. Sensors using Arduino board and in case of any discrepancy send a SMS notification as well as a notification on the application developed for the same to the farmer's smartphone using Wi-Fi/3G/4G.

Various sensor nodes are deployed at different locations in the farm to automate the irrigation anytime anywhere. This project will be more helpful for the farmer's welfare .In thid technology has more helpful in farmers daily life.

Literature Survey

IoT Enabled Smart Farming and Irrigation Systems

(M. Rohith; R Sainivedhana; N. Sabiyath Fatima)

The existing system only checks the soil water stress and automates the process of watering. The paper is about IOT based smart farming and irrigation system. The ultimate agenda of this paper is to automate the process of watering to plants. This work helps us to know the values of various parameters such as humidity, moisture and temperature of plants and water them accordingly.

IoT-based Low Cost Architecture For Smart Farming

(Amine Faïd; Mohamed Sadik; Essaid Sabir)

The system is based on the in this paper, we present an IoT-based low-cost architecture for smart farming based implementation of the change point detection algorithm and leach protocol for network clustering. This solution supports near real-time monitoring, data processing, and aid to improve decision-making.

Internet of Things based Smart Farm Security Systems

(Gajula Siva Sai Preethi; Kommu Kavya)

After harvesting farmers gather the paddy stalks and dry them. At this time, they have to stay on farm to protect the crop from animals or intruders but it will increase workload on farmers. In these situations, they may use a security device to protect their farms. Meanwhile they can complete their other work. An Architecture model for Smart Farming (Anna Triantafyllou; Dimosthenis C. Tsouros) IoT based monitoring systems to guide the process of designing and implementing Smart farming monitoring systems, in this paper we propose a generic reference architecture model, taking also into consideration a very important non-functional requirement, the energy consumption restriction.

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An Architecture model for Smart Farming

(Anna Triantafyllou; Dimosthenis C. Tsouros)

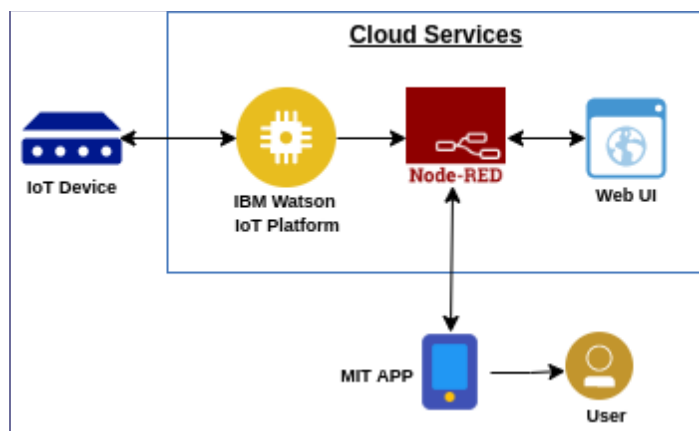
IoT based monitoring systems to guide the process of designing and implementing Smart farming monitoring systems, in this paper we propose a generic reference architecture model, taking also into consideration a very important non-functional requirement, the energy consumption restriction.

Proposed Solution

1. Problem statement (problem to be solved) To make farming easier by choosing several Constraints in agriculture and to overcome Those constraints, to increase production quality and quantity using IOT. quality and quantity using IOT. 2. Idea / Solution description Using smart techniques like monitoring farms Climate, smart irrigation and soil analysis. 3. Novelty / Uniqueness Solar power smart irrigation system which Helps you to monitor temperature , moisture , Humidity using smart sensors. 4. Social impact / Customer Satisfaction It is better than present modern irrigation System by using this method we can control Soil erosion. There will be better production yield. 5. Business Model (Revenue Model) As the productivity increases customer Satisfaction also increases and hence need for The application also increases, which increases the revenue of the business. 6. Scalability of the solution It is definitely scalable we can increase the Constraints when the problem arises.

Technical Architecture

Technical Architecture:



Conclusion

In this application has more useful in farmers and the agricultural area. and monitoring the environmental parameters like soil moisture, temperature, humidity etc

Software Required

Software Required:

Python IDLE

System Required:

RAM-Minimum 4GB Processor-Min. Configuration OS-Windows/Linux/MAC