

“Smart Agriculture Monitoring and Control System Using IOT”

Authors: Abhilash Lad, Sumitra Nandre, Krishna Raichurkar, Sumit Zarkhande, Dr. Priya Charles

The IoT is a network of interconnected devices that can transmit and receive data over the internet and carry out tasks without human involvement. Agriculture provides a wealth of data analysis parameters, resulting in increased crop yields. The use of IoT devices in smart farming aids in the modernization of information and communication. For better crop growth moisture, mineral, light and other factors can be assumed. This research looks into a few of these characteristics for data analysis with the goal of assisting users in making better agricultural decisions using IoT. The technique is intended to help farmers increase their agricultural output.

“IoT Applications in Agriculture”

Escuela de Ingeniería en Computación e Informática, Guayaquil, Ecuador.

IoT technologies allow developing systems that support different agricultural processes. Some of these systems are remote monitoring systems, decision support tools, automated irrigation systems, frost protection systems, and fertilization systems, among others. Considering the aforementioned facts, it is necessary to provide farmers and researchers with a clear perspective of IoT applications in agriculture. In this sense, this work presents a systematic literature review of IoT-based tools and applications for agriculture. The objective of this paper is to offer an overview of the IoT applications in agriculture through topics such IoT-based software applications for agriculture available in the market, IoT-based devices used in the agriculture, as well as the benefits provided by this kind of technologies.

“Smart Agriculture Using IOT”

Shweta A M*, Dr V. Nagaveni

One of the important applications of Internet of Things is Smart agriculture. Smart agriculture reduces wastage of water, fertilizers and increases the crop yield. In the current agriculture system the specification such as temperature, moisture, humidity are detected manually which increases the labor cost, time and also monitoring cannot be done continuously. In this paper irrigation process is done automatically using different sensors which reduces the manual labor. Here a system is proposed to monitor crop-field using sensors for soil moisture, humidity and temperature. By monitoring all these parameters the irrigation can be automated.

“IOT Based On Smart Agriculture”

1. Mr.N.Sivakumar, 2. Mr.P.Thiyagarajan, 3. Ms.R.Sandhiya

This paper is for internet of things in agriculture to be used by farmers in their Agriculture lands, they can use “soil moisture sensors”. This sensor system which monitors and maintains the desired soil moisture content via automatic water supply. It is used to get information’s about environmental conditions such as light, dust, humidity or sudden changes in temperature. The setup uses soil moisture sensors which measure the exact moisture level in soil. The value active the systems to use appropriate quantity of water avoids over/under irrigation. Usually the farmer pumps the water more or less to cultivate the land. This may result in wastage of water or insufficiency to the crops. Motion Sensors will create alert SMS/Text messages. That alert messages will be send to farmer’s phone when they detect motion. This model sends an alerting message to the farmer when the moisture level increases or decreases in the field.

“Smart Agricultural Farming Using IOT”

Pakruddin B[1], Vishruth ND[2], Shreeshyam H S[3], Saurabh[4], Osama Mustaquim[5]

The survey proposes smart agriculture using various devices. Related work is the foundation for advance in agriculture practice. Using smart agriculture a farmer can control the activities of agriculture like irrigation, animal intrusion, etc. The communication between the devices is increased by the use of IoT. Using IoT in agriculture improves the functionalities used in farming. Until now, the only way of handling the agricultural activities is by traditional method. In this survey Using WSN, data acquisition and transfer and monitoring becomes easy. This technique provides smart solution for crop growth using IoT.

“SMART FARMING STICK”

Ankit Kumar Singh

Internet of Things (IOT) an emerging and revolutionary technology that has brought revolutions into many fields of common man's life by making everything smart and intelligent. This project, propose an IoT based Smart Farming Agriculture Stick assisting farmers in getting live data of temperature, humidity, soil moisture, smoke detection, pH, etc. for efficient environment monitoring which will enable them to do smart farming and improve their overall yield and quality of products. The agriculture system proposed in this project is integrated with Node MCU technology consisting of various sensors which provide live on field data that can be obtained on android mobile phone.

“Smart Farming System Monitoring and Control of Some Agriculture Features”

Salwa Mitouilli

The main goal of my project is to use IoT in the agriculture field in order to collect data instantly (soil Moisture, temperature...), which will help one to monitor some environment conditions remotely, effectively and enhance tremendously the production and therefore the income of farmers. The present prototype is developed using Arduino technology, which comprise specific sensors, and a Wifi module that helps to collect instant data online. Worth mentioning the testing of this prototype generated, highly accurate data because while we were collecting them remotely any environmental changes were detected instantly and taking in consideration to make decisions.