

LITERATURE SURVEY-II

NO: 1

TITLE: IoT based System for Smart Agriculture

AUTHORS: Ioana M Marcu, George Suci, Cristina M. Balaceanu, Alexandru Banaru.

PUBLISHING YEAR: 2019

CONTENT:

Agriculture is the most traditional activity over time. Since the beginning of it, agriculture has suffered many changes to improve productivity and quality of crops. Some of the first significant improvements have been remarked when machines and new tools such as irrigation systems, harvest machines, farmland clearing machines were introduced in the primitive agriculture, where these activities were performed mainly by humans and animals. Over time, agriculture has been affected by weather disasters (such as storms or extreme temperatures) and by natural disasters (such as pests and plant diseases). Thus, the next step in the development of the agriculture domain was to propose the Internet of Things (IoT) solutions for monitoring of many parameters for better precision agriculture. Such a system would provide useful information on plant growth, crops' diseases, and soil properties that are a benefit for crops. This paper describes a possible solution for a more reliable IoT-based system using Libelium for Smart Agriculture to monitor the parameters that have a direct impact on crops. Moreover, the monitoring system aims to manage agricultural issues related to irrigations and analyses the effect of the measured parameters on agriculture, helping the farmers to have healthy crops.

NO: 2

TITLE: Smart Farming System using IoT for Efficient Crop Growth

AUTHORS: Ioana M Marcu, George Suci, Cristina M. Balaceanu, Alexandru Banaru.

PUBLISHING YEAR: 2020

CONTENT:

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. In this paper, an IoT based advanced solution for monitoring the soil conditions and atmosphere for efficient crop growth is presented. The developed system is capable of monitoring temperature, humidity, soil moisture level using NodeMCU and several sensors connected to it. Also, a notification in the form of SMS will be sent to farmer's phone using Wi-Fi about environmental condition of the field.

NO: 3

TITLE: A Literature Survey on Smart Agriculture Monitoring and Control System Using IOT

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

PUBLISHING YEAR: 2022

CONTENT:

India is agriculture sector, on either side, is losing ground every day, affecting the ecosystem's output capacity. In order to restore vitality and put agriculture back on a path of higher growth, there is a growing need to resolve the issue. A large-scale agricultural system necessitates a great deal of upkeep, knowledge, and oversight. 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.

NO: 4

TITLE: IoT based Smart Agriculture

AUTHORS: Nikesh Gondchawar, Prof. Dr. R. S. Kawitkar

PUBLISHING YEAR: 2016

CONTENT:

Agriculture plays vital role in the development of agricultural country. In India about 70% of population depends upon farming and one third of the nation's capital comes from farming. Issues concerning agriculture have been always hindering the development of the country. The only solution to this problem is smart agriculture by modernizing the current traditional methods of agriculture. Hence the project aims at making agriculture smart using automation and IoT technologies. The highlighting features of this project includes smart GPS based remote controlled robot to perform tasks like weeding, spraying, moisture sensing, bird and animal scaring, keeping vigilance, etc. Secondly it includes smart irrigation with smart control and intelligent decision making based on accurate real time field data. Thirdly, smart warehouse management which includes temperature maintenance, humidity maintenance and theft detection in the warehouse. Controlling of all these operations will be through any remote smart device or computer connected to Internet and the operations will be performed by interfacing sensors, Wi-Fi or ZigBee modules, camera and actuators with micro-controller and raspberry pi.