IDEATION PHASE – LITERATURE SURVEY

PROJECT DOMAIN	Internet of Things
PROJECT NAME	IoT Based Smart Crop Protection System for Agriculture
TEAM ID	PNT2022TMID18648
DATE	10 October 2022

INTRODUCTION:

The India is an agricultural country. The main aim of our project is to reduce the complexity of supervision and to avoid the continuous monitoring. We can accomplish smart agriculture using our system. This system includes IOT-based agricultural monitoring. The Internet of Things (IOT) is transforming the agriculture business and addressing the enormous difficulties and huge obstacles that farmers confront today in the field. The soil moisture sensor is put into the soil to determine whether the soil is wet or dry, and if the moisture level in the soil is low, the relay unit attached to the motor switch must be monitored on a regular basis. When the soil is dry, it will turn on the motor, and when the soil is moist, it will turn off the engine. This project achieves irrigation automation and protect crop from animals and birds and check the soil moisture content which is considered as a crucial answer to this problem. This is accomplished with the aid of a Raspberry Pi, which controls the moisture and temperature sensors based on the input provided.

ABSTRACT :

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 out.

EXISTING SOLUTIONS:

1. **TITLE OF THE PAPER :** Smart Agriculture using IOT.

   AUTHOR : Sweksha Goyal, Unnathi Mudra, Prof Sahana Shetty.

   METHOD:

   The authors have aimed in making a technology which is completely automated. The paper takes care of all major factors of agriculture i.e., monitoring, irrigation and security. The methodology used in this system can monitor the humidity, moisture level and can even detect motions.

2.TITLE OF THE PAPER : IOT Based on Smart Agriculture.

AUTHOR: Mr.N.Sivakumar, Mr.P.Thiyagarajan,Ms.R.Sandhiya,

METHOD: The authors have proposed a sensor system which monitors and maintains the desired soil moisture content via automatic water supply.

3.TITLE OF THE PAPER: IoT based Smart Agriculture, International Journal of Science, Engineering and Technology Research (IJSETR)

AUTHOR : Siddhanth Kamath B, Kiran K Kharvi ,

Mr. AbhirBhandary, Mr. Jason Elroy Martis

PUBLISHED DATE : Volume 8, Issue 4, April 2019, ISSN: 2278-7798

METHOD: The authors have suggested a low cost IoT enabled smart agricultural system which can evaluate the farmland and predict which type of crop is best for that land based on the data collected from local conditions of that land varying from humidity to soil moisture content.

CONCLUSION:

So, after knowing about some IoT applications in agriculture, we can say that it is definitely revolutionize the agriculture industry in a few years. IoT has been applied in several areas of agriculture. A lot research is underway to ensure more IoT devices are used to make the managing of farms easier and increase productivity. IoT is allowing farmers to easily obtain data that is useful in many ways such as decision making. With the increasing demand for food due to the rapid population increase, we expect more IoT applications in the next few years. The system uses information from soil moisture sensors to irrigate the soil to avoid the damage of crops due to over irrigation or under irrigation and get the animals and birds notification from the calarifai and automatic water sprinkled in the cropif there is a lack of water for crops. These are done without going to the agriculture land.