Smart Agriculture system based on IoT

Introduction

IOT of Internet of things is a system of interrelated computing devices which are capable of sending/receiving information or data within their network. It is a method of establishing communication between these such devices. Our world has advanced with time, and the revolutions in technological have been exponentially growing over time. However, we the farming practices are still stuck with the old techniques and methods. It is necessary to revolutionize the way farming is done with introducing technology to it.

There was a time when mobile phones were the jewelry of the rich and royals, but now, times have changes and everyone has access to a smart phone. Using IOT and smart phone as its control interface, a task of autonomous farming or remote farming can be achieved, where by a farmer can control, operate, perform various tasks such as sowing seeds, watering the plants, spraying pesticides etc just by tapping few icons on his/her smart phone. This will get rid of intensive labor required by a farmer.

Project Description

Over a duration of 30 days, the idea of developing a Smart Agriculture Sytem based on IoT and IoT Cloud Platform will be brought to life. This proposed system will possess the following features to reduce a farmer's labour:

1. The ability to monitor soil moisture and climatic conditions to grow and yield a good crop.

2. The farmer can get the realtime weather forecasting data by using external platforms like Open Weather API.

3. Farmer, via a mobile app will be able to monitor the temperature, humidity and soil moisture parameters along with weather forecasting details.

4. Based on all the parameters he can water his crop by controlling the motors using the mobile application even if he's not present at the location physically.

The following requirements will be accomplished by using cloud based IoT platform.