PROJECT KICKOFF

Project Name: Smart Agriculture System using IoT   **Date:** 09 - 06 - 2020

Project Manager: S Sathya

Project Summary:

Agriculture is the backbone of our country. It is present in the country for thousands of years. Over the years it has developed and the use of new technologies and equipment has led to immense growth and better yield in agriculture. Smart agriculture system using IoT enables farmers to obtain better crop yields with the power of data such as soil moisture, climate, temperature, humidity. The information can be processed to determine whether the crops are getting adequate water or not, thereby turning on and off of water pumps to irrigate the field from wherever.

Stakeholders:

Farmers, who need to irrigate the crop based on climate conditions, soil moisture levels, can use this IoT based web app to control their irrigation motors remotely with just a simple click.

Software Requirements:

IBM cloud, Watson IBM IoT platform, Openweather API, IoT sensor simulator, Python IDLE, Node-Red.

Project Objectives:

The interface has to receive the information about weather from Open Weather API and the soil moisture content, temperature, humidity from the crop field using detection sensors. The interface can operate irrigation motors near the field through internet.

Project Deliverables:

A farmer can operate the electrical motors to irrigate the field based on the data regardless of his presence in the field, which makes sure the crops are always properly watered and provides better yield.

Project Schedule:

The time span for making the project is about 1 month with the following schedule plan.

- 1st week - Setting up working environment
- 2nd week - Connecting and making the dataflow path
- 3rd week - Creating web app
- 4th week - Configuring the app to receive data and control the motors

Future Scope:

The model can be further automated like based on the data received the motor will be turned on or off automatically. The mineral content of the soil can be tested and accordingly crops can be cultivated.