PROJECT TITLE

**SMART AGRICULTURE SYSTEM BASED ON IOT**

**LEADER NAME:** KSHITIJA NILESH SAVE

**PROJECT LEANTH:** 4 WEEK

**START DATE:** 16 MAY 2020

**END DATE:** 15 JUNE 2020

**DESCRIPTION**

The global population is predicted to touch [9.6 billion by 2050](http://www.computerweekly.com/news/2240239484/IoT-could-be-key-to-farming-says-Beecham-Research) – this can be big problem for the agriculture industry. Despite combating challenges like extreme weather conditions, rising climate change, and farming’s environmental impact, the demand for more food has to be met. To meet these increasing needs, agriculture has to turn to new technology. New smart farming applications based on IoT technologies will enable the agriculture industry to reduce waste and enhance productivity from optimizing fertilizer use to increasing the efficiency of farm vehicles’ routes.

Smart Agriculture System based on IoT can monitor soil moisture and climatic conditions to grow and yield a good crop. The farmer can also get the real-time weather forecasting data by using external platforms like Open Weather API.Farmer is provided a mobile app using which he can monitor the temperature, humidity and soil moisture parameters along with weather forecasting details. Based on all the parameters he can water his crop by controlling the motors using the mobile application. Even if the farmer is not present near his crop he can water his crop by controlling the motors using the mobile application from anywhere. Here we are using the Online IoT simulator for getting the Temperature, Humidity and Soil Moisture values.

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| **LEVEL** | **TASK** | **START**  **DATE** | **END**  **DATE** |
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| 1 | |  | | --- | | Start reading various article related to IOT in agriculture. | | 16/05/2020 | 18/05/2020 |
| 2 | Explore the gihub and zoho writer. | 19/05/2020 | 20/05/2020 |
| 3 | Explore the IBM cloud platform. | 21/05/2020 | 24/05/2020 |
| 4 | Explore the python IDE programming. | 24/05/2020 | 29/05/2020 |
| 5 | connect the IOT simulator to Watson IOT platform | 29/06/2020 | 31/06/2020 |
| 6 | Install noded and connect your IBM IOT Device to get simulator data. | 31/06/2020 | 01/06/2020 |
| 7 | Create and configure open API weather platform. | 01/06/2020 | 02/06/2020 |
| 8 | Configure nodded to display weather parameter and open weather API in UI. | 02/06/2020 | 03/06/2020 |
| 9 | Configure the noded for creating buttons and sending commands to IOT platform. | 03/06/2020 | 04/06/2020 |
| 10 | Configure your device to receive the data form the web application. | 05/06/2020 | 06/06/2020 |
| 11 | Write a python code to subscribe to IBM IOT Platform. | 06/06/2020 | 07/06/2020 |
| 12 | Complete smart agriculture system based on IOT. | 08/06/2020 | 14/06/2020 |