

## **Project Scope:**

### **Summary:**

To provide the farmers an user friendly IOT based Agriculture monitoring system (mostly a mobile app) that will lively monitor for the soil's moisture and enables distance operation of irrigation facilities to the field. Details about weather and ideal crops for prevailing climate, water facilities are the key features to be enabled for them.

### **Project Requirement:**

A wide range of IOT enabled sensor which can interact to mobile driven commands are needed for the operations like moisture detection, weather condition checking, irrigation line etc.

### **Functional Requirement:**

The system must be provided information about the farmer's field location, soil type, moisture composition, crops grown are all essentially needed. The app will be enabled to monitor these factors and update the farmer frequently.

### **Technical requirement:**

Like all standard applications Three layers of architecture such as User interface layer, Application logic layer and Back ground data storage layer will be introduced in the app. The application is connected to the remote sensors via mobile data connection thus making the process external modules possible.

### **Software requirement:**

A wide range of web frame works and IOT simulators needs to be created. The software required are Python 3, IBM Watson IOT simulator, Node-red, Open Weather API s, IBM cloud services.