

PROJECT SCOPE

For

IoT based Smart Agriculture System

- Smart Agriculture through Internet of Things is a new research in the field of Engineering.
- Here the farmer is provided with smart technology with which he can monitor the field conditions using a mobile app.
- By using the mobile app, the farmer can monitor the weather conditions like temperature, humidity and soil moisture using the mobile application.
- He can also know the real-time weather forecasting details at the field using the application by the means of an open weather API.
- This API provides all the weather details required by the farmer so that he can act accordingly.
- The farmer is also provided with motor controls with which he can turn on/off the motor using the controls provided in the mobile application.
- By using the mobile application, the farmer can monitor his field from anywhere.
- Based on the data shown in the application, the farmer knows

when to water his crop by the help of motor controls provided in the app anywhere and anytime.

- Here we are using the online IoT simulator to obtain the values of temperature, humidity and soil moisture.
- For the development of the mobile application, we have to configure Node-Red and install the required nodes to acquire all the data required by the application.
- The application is viewed as a result of Node-Red's User Interface.
- The Interface acts as a platform for all the required nodes to perform on and collectively produce an output for the application.
- A Hardware device is set up in the field which acts as a medium for the weather and motor controls and to send the information to the application by which the farmer can monitor the field.

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