SMART PLANT MONITORING SYSTEM USING IOT

THARANIYA S, POORNIKA SRI G, SUBHASHINI S V, LAKSHANA S

BANNARI AMMAN INSTITUTE OF TECHNOLOGY,

SATHYAMANGALAM

tharaniya.ei20@bitsathy.ac.in, poornikasri.cs20@bitsathy.ac.in, subhashini.cs20@bitsathy.ac.in, lakshana.cs20@bitsathy.ac.in

ABSTRACT:

From early man stage to the right now scenario , agriculture plays an important role in each and everyone's life. We call its as a backbone of our country as it fulfils the basic requirements for each and everyone as of food or cloth materials. The raw materials are owned from agriculture. I hope so our idea is going to make some innovative thing in agriculture and to the farmers. Our idea is about Smart Plant Monitoring System which includes the monitoring of soil temperature, soil moisture and humidity. We can also control the water flow with our smartphone anywhere around the world. Here we are constructing a IoT primarily based Irrigation System the use of ESP8266 NodeMCU Module and DHT11 Sensor. It will not only routinely irrigate the water primarily based on the moisture level in the soil but also send the Data to ThingSpeak Server to maintain tune of the land condition.

STEP 1 – BLOCK DIAGRAM OF THE PROJECT

Do the connection of sensors, BOLT and relay as given in diagram. I have used 328p microcontroller which is used in ARDUINO. So you can use Arduino in place of 328P microcontroller.

STEP 2 – AURDINO CODE FOR PROJECT.

Hardserial.inoo is arduino code which consist of interfacing of unique sensors with arduino and interfacing of Arduino with BOLT to send information of sensor on BOLT cloud page.

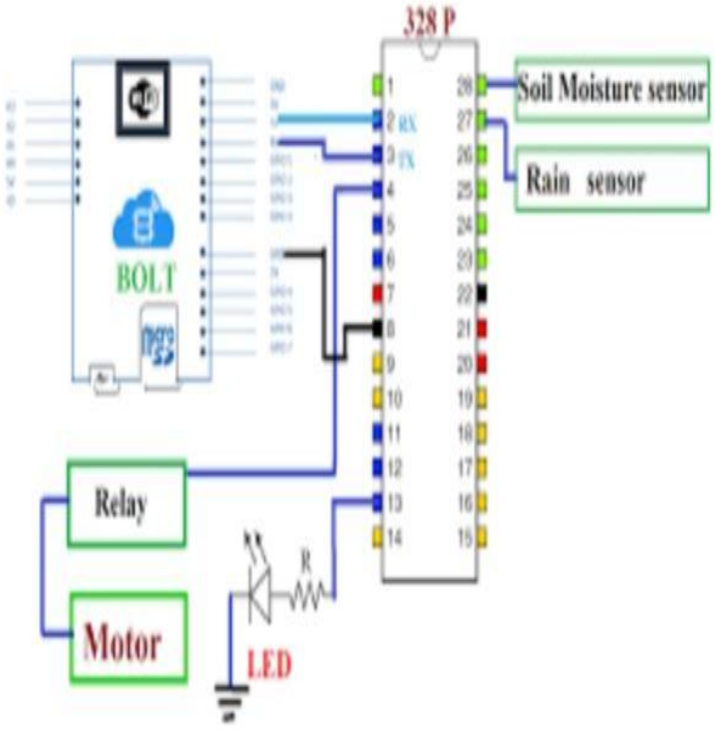
STEP 3 – CODING OF HTML PAGE.

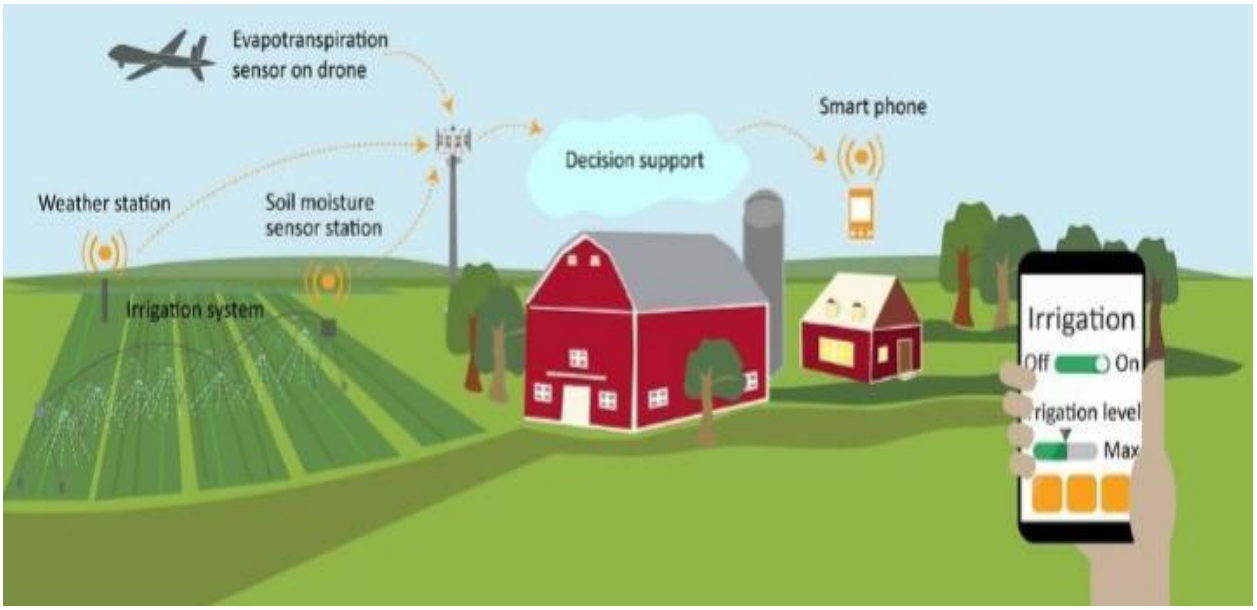
In this step, we will code the HTML page through which we send command to Arduino for controlling the motor(i.e., to START and STOP the motor).

The other steps includes uploading JAVASCRIPT ON BOLT CLOUD, configuration on BOLT CLOUD PAGE and deploy CONFIGURATION and DATA VISUALISATION.

Therefore , IOT creates a new innovative platform in the agriculture field and also the water gets saved by using this innovative technique.

BLOCK DIAGRAM :


328 P
Soil Moisture sensor
Rain sensor
BOLT
Relay
Motor
R
LED


Evapotranspiration
sensor on drone
Smart phone
Decision support
Weather station
Soil moisture
sensor station
Irrigation system
Irrigation
Off
On
Max