Smart Farmer-IOT Enabled Smart Farming Application

SPRINT-1

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| TITLE | Smart Farmer-IOT Enabled Smart Farming  Application |
| DOMAIN NAME | INTERNET OF THINGS |
| TEAM ID | PNT2022TMID19661 |
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**Arduino using C++ code To Connect Sensors**

#include "Arduino.h" #include

"dht.h"

#include "SoilMoisture.h"

#define dht\_apin A0 const int sensor\_pin = A1; //soil moisture int pin\_out = 9;

dht DHT; int c=0; void setup()

{ pinMode(2, INPUT); //Pin 2 as INPUT

pinMode(3, OUTPUT); //PIN 3 as OUTPUT

pinMode(9, OUTPUT);//output for pump

}

void loop()

{

if (digitalRead(2) == HIGH)

{

digitalWrite(3, HIGH); // turn the LED/Buzz ON

delay(10000); // wait for 100 msecond

digitalWrite(3, LOW); // turn the

LED/Buzz OFF delay(100);

}

Serial.begin(9600);

delay(1000);

DHT.read11(dht\_apin); //temprature

float h=DHT.humidity;

float t=DHT.temperature;

delay(5000);

Serial.begin(9600);

float moisture\_percentage;

int sensor\_analog;

sensor\_analog = analogRead(sensor\_pin); moisture\_percentage = ( 100 - ( (sensor\_analog/1023.00) \* 100 )); float m=moisture\_percentage;

delay(1000);

if(m<40)//pump

{ while(m<40)

{ digitalWrite(pin\_out,HIGH); //open pump

sensor\_analog = analogRead(sensor\_pin);

moisture\_percentage = ( 100 - ( (sensor\_analog/1023.00) \* 100 )

);

m=moisture\_percentage; delay(1000);

}

digitalWrite(pin\_out,LOW); //closepump

} if(c>=0)

{

mySerial.begin(9600);

delay(15000);

Serial.begin(9600);

delay(1000);

Serial.print("\r");

delay(1000);

Serial.print((String)"update-

>"+(String)"Temprature="+t+(String)"Humidity="+h+(String

)"Moisture="+m); delay(1000);

}

}

**Circuit Diagram :**

