MUTHAYAMMAL ENGINEERING COLLEGE

Department of Electronics and Communication Engineering

Smart Farmer-IOT Enabled Smart Farming Application

SPRINT-1

TITLE	Smart Farmer-IOT Enabled Smart Farming Application
DOMAIN NAME	INTERNET OF THINGS
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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 :