ARUNAI ENGINEERING COLLEGE

Department of Computer Science and 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 :