VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN

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

```cpp
#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;
```

```arduino
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: