Department of Computer Science and Engineering

**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** | PNT2022TMID16877 |
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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:

