HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANTS POWERED BY IOT

PROJECT DEVELOPMENT PHASE

SPRINT-1

SUBMITTED BY

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```
CODE:

int sensor = A0;

#include<LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

//int sensor = A0; // Assigning analog pin A1 to variable 'sensor'

float tempc;  //variable to store temperature in degree Celsius

float vout;  //temporary variable to hold sensor reading

void setup()

{

pinMode(sensor,INPUT); // Configuring pin A1 as input

Serial.begin(9600);

lcd.begin(16,2);

 delay(500);

}

void loop()

{

vout=analogRead(A0);

float prehum=(vout/5);

vout=(vout*5.00)/1024.0;

tempc=(vout-0.5)*100; // Storing value in Degree Celsius

float humconst = (0.16/0.0062);

float humi = prehum - humconst;

float pretruehumconst = 0.00216*tempc;
```

```
float pretruehum = 1.0546 - pretruehumconst;

float truehum = humi/pretruehum;

//delay(1000);

lcd.setCursor(0,0);

lcd.print("Degree C = ");

lcd.print(tempc);

lcd.setCursor(0,1);

lcd.print("Humidity%= ");

lcd.print(truehum);

delay(1000); //Delay of 1 second for ease of viewing in serial monitor

}
```

OUTPUT: