#include <DHT.h>

#include <Wire.h>

#include <ESP8266WiFi.h>

#include <WiFiClient.h>

#include <ThingSpeak.h>

#define DHTPIN D7 // what digital pin the DHT22 is conected to

#define DHTTYPE DHT22 // there are multiple kinds of DHT sensors

DHT dht(DHTPIN, DHTTYPE);

const char\* ssid="karttik";

const char\* password="12345678";

WiFiClient client;

unsigned long Channel=294056;

const char \* WAPIKey="QSQI0TEOG49CMOL0";

double alpha=0.75;

int period=20;

double refresh=0.0;

int val;

void setup(void)

{

Serial.begin(115200);

Serial.println();

Serial.print("Connecting to ");

Serial.print(ssid);

WiFi.begin(ssid, password);

while (WiFi.status() != WL\_CONNECTED)

{

delay(500);

Serial.print(".");

}

Serial.println("WiFi connected");

ThingSpeak.begin(client);

pinMode(A0,INPUT);

dht.begin();

}

void loop(void)

{

static double oldValue=0;

static double oldrefresh=0;

long hb;

Serial.println("inside pulsesensor");

int beat=analogRead(A0);

double value=alpha\*oldValue+(0-alpha)\*beat;

refresh=value-oldValue;

Serial.print(" Heart Monitor ");

Serial.print(" ");

hb=beat/10;

Serial.println(hb);

oldValue=value;

oldrefresh=refresh;

//delay(period\*20);

// temperature sensor code

float h = dht.readHumidity();

// Read temperature as Celsius (the default)

float t = dht.readTemperature();

// Read temperature as Fahrenheit (isFahrenheit = true)

//float f = dht.readTemperature(true);

Serial.print("Humidity: ");

Serial.print(h);

Serial.print(" %\t");

Serial.print("Temperature: ");

Serial.print(t);

Serial.print(" \*C ");

ThingSpeak.writeField(Channel, 1, hb, WAPIKey);

ThingSpeak.writeField(Channel, 2, t, WAPIKey);

ThingSpeak.writeField(Channel, 3, h, WAPIKey);

}