**LISTING PROGRAM**

#include <Wire.h>

#include <LiquidCrystal\_I2C.h>

#include "DHT.h"

#define DHTPIN D7

#define DHTTYPE DHT11

DHT dht(DHTPIN, DHTTYPE);

LiquidCrystal\_I2C lcd(0x27, 16, 2);

int lampu=0;

int kipas=2;

int buzzer=16;

void setup() {

Serial.begin(9600);

pinMode(lampu, OUTPUT):

pinMode(kipas, OUTPUT):

pinMode(buzzer, OUTPUT):

dht.begin();

lcd.begin();

lcd.backlight();

lcd.setCursor(0, 0);

lcd.print("Aldo Muzakki");

lcd.setCursor(0, 1);

lcd.print("2016030080");

delay(2000);

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Monitoring Suhu");

lcd.setCursor(0, 1);

lcd.print("Fermentasi Tempe");

delay(2000);

lcd.clear();

}

void loop() {

sensor();

lcd.setCursor(0, 0);

lcd.print("Suhu = ");

lcd.setCursor(7, 0);

lcd.print(t);

lcd.setCursor(0, 1);

lcd.print("Kps:");

lcd.setCursor(4, 1);

lcd.print("OFF");

lcd.setCursor(8, 1);

lcd.print("Lmp:");

lcd.setCursor(12, 1);

lcd.print("OFF");

if(t<=20){

lcd.setCursor(4, 1);

lcd.print("OFF");

lcd.setCursor(12, 1);

lcd.print("ON");

digitalWrite(lampu, 1);

digitalWrite(kipas, 0);

digitalWrite(buzzer, 1);

}

if(t<=37){

lcd.setCursor(4, 1);

lcd.print("ON");

lcd.setCursor(12, 1);

lcd.print("OFF");

digitalWrite(lampu, 0);

digitalWrite(kipas, 1);

digitalWrite(buzzer, 1);

}}

void sensor(){

float t = dht.readTemperature();

Serial.print(F(" Temperature: "));

Serial.print(t);

Serial.print(F("°C "));

delay(2000);

}