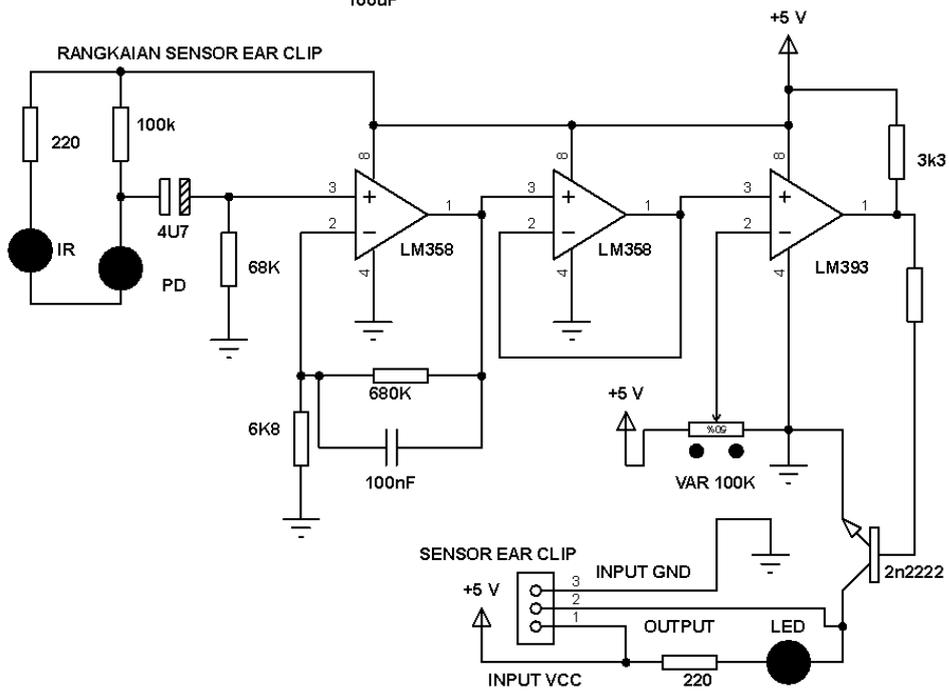
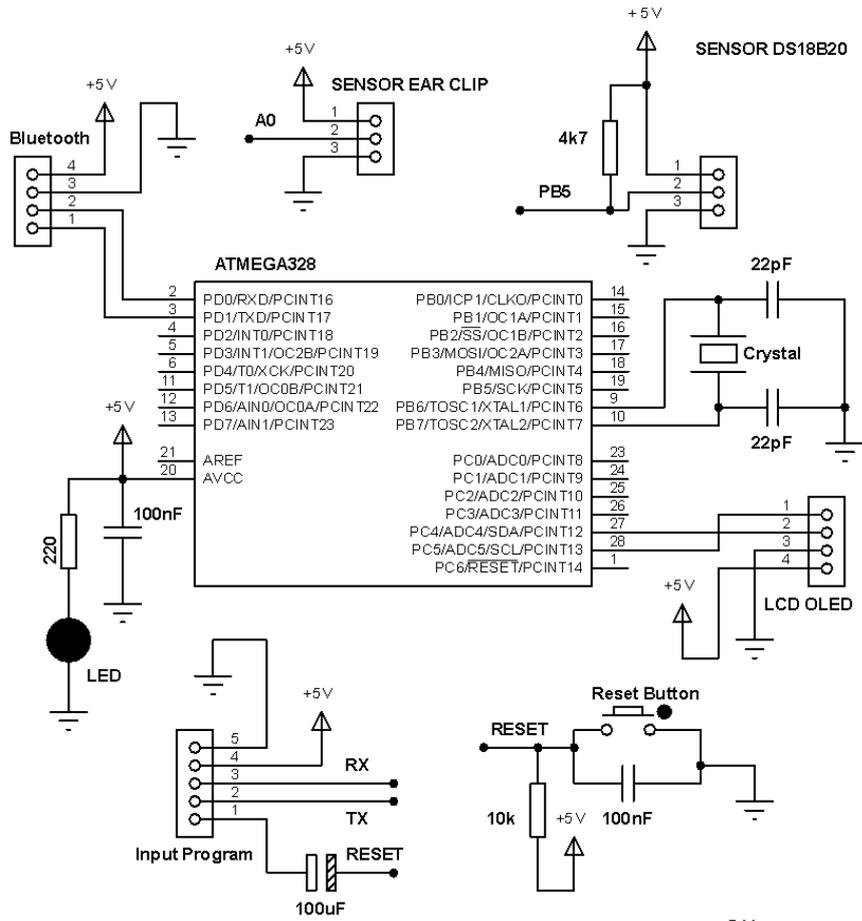


# **LAMPIRAN**

# Rangkaian Keseluruhan



## **Coding Program *Arduino***

```
#include <Adafruit_SH1106.h>
#include <OneWire.h>
#define pinBuzzer 8
int pulsePin = 0;
int DS18S20_Pin = 13;
OneWire ds(DS18S20_Pin);
#define OLED_Address 0x3C
Adafruit_SH1106 oled(1);

volatile int BPM;
volatile int Signal;
volatile int IBI = 600;
volatile boolean Pulse = false;
volatile boolean QS = false;

void setup(){

  Serial.begin(115200);
  oled.begin(SH1106_SWITCHCAPVCC, OLED_Address);
  oled.clearDisplay();
  oled.setTextSize(1);
  pinMode(pinBuzzer, OUTPUT);
  oled.setTextColor(WHITE);
  oled.setCursor(33,20);
  oled.print("Welcome To");
  oled.setCursor(30,33);
  oled.print("Our Project");
  oled.display();
  delay(1000);
  oled.clearDisplay();
  oled.setCursor(20,30);
  oled.print("Alat Monitoring");
```

```
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(25,20);
oled.print("Detak Jantung");
oled.setCursor(55,33);
oled.print("Dan");
oled.setCursor(35,46);
oled.print("Suhu Tubuh");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(40,30);
oled.print("Berbasis");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(38,20);
oled.print("Interaksi");
oled.setCursor(43,33);
oled.print("Android");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(55,30);
oled.print("Dan");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(35,20);
oled.print("Dilengkapi");
oled.setCursor(27,33);
oled.print("Telemedicine");
```

```
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(55,30);
oled.print("Oleh");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(20,20);
oled.print("Bayu Satrio Adi");
oled.setCursor(30,33);
oled.print("20153010012");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(55,30);
oled.print("Dan");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(3,20);
oled.print("Muhammad Ridho Ilahi");
oled.setCursor(30,33);
oled.print("20153010051");
oled.display();
delay(1000);
oled.clearDisplay();
oled.setCursor(14,30);
oled.print("Start Monitoring");
oled.display();
delay(3000);
oled.clearDisplay();
interruptSetup();
```

```

}
void loop() {
  if (QS == true) {
    BPM;
    QS = false;
  }
  float temperature = getTemp();
  Serial.println(BPM);
  Serial.print("|");
  Serial.println(temperature);
  oled.setTextColor(WHITE);
  oled.writeFillRect(0,30,128,16,BLACK);
  oled.writeFillRect(0,50,128,16,BLACK);
  oled.setCursor(0,11);
  oled.print("Pengukuran:");
  oled.setCursor(0,23);
  oled.print("Detak Jantung:");
  oled.setCursor(80,33);
  oled.print(BPM);
  oled.print(" BPM");
  oled.setCursor(0,40);
  oled.print("Suhu Tubuh:");
  oled.setCursor(80,50);
  oled.print(temperature,1);
  oled.print(" C");
  oled.display();
  delay(3000);
  oled.clearDisplay();

  if (BPM<=59 | BPM>=106)
  {
    digitalWrite(pinBuzzer, HIGH);
    delay(50);}
}

```

```

    if (BPM>=60 | BPM<=105)
    {
        digitalWrite(pinBuzzer, LOW);
        delay(50);}
    if (temperature<=34.9 | temperature>=37.6)
    {
        digitalWrite(pinBuzzer, HIGH);
        delay(50);}
    if (temperature>=35 | temperature<=37.5)
    {
        digitalWrite(pinBuzzer, LOW);
        delay(50);}
}
float getTemp(){
byte data[12];
byte addr[8];
if ( !ds.search(addr)) {
ds.reset_search();
return 0;
}
if ( OneWire::crc8( addr, 7) != addr[7]) {
Serial.println("CRC is not valid!");
return 0;
}
if ( addr[0] != 0x10 && addr[0] != 0x28) {
Serial.print("Deviceot recognized");
return 0;
}
ds.reset();
ds.select(addr);
ds.write(0x44,1);
byte present = ds.reset();
ds.select(addr);

```

```

ds.write(0xBE); // Read Scratchpad

for (int i = 0; i < 9; i++) {
  data[i] = ds.read();
}
ds.reset_search();
byte MSB = data[1];
byte LSB = data[0];
float tempRead = ((MSB << 8) | LSB);
float TemperatureSum = tempRead / 16;
return TemperatureSum;
}

```

### ***Coding Interrupt BPM***

```

int rate[10];
unsigned long sampleCounter = 0;
unsigned long lastBeatTime = 0;
int P = 512;
int T = 512;
int thresh = 512;
int amp = 100;
boolean firstBeat = true;
boolean secondBeat = false;

void interruptSetup(){
  TCCR2A = 0x02;
  TCCR2B = 0x06;
  OCR2A = 0X7C;
  TIMSK2 = 0x02;
  sei(); }

ISR(TIMER2_COMPA_vect){
  cli();
  Signal = analogRead(pulsePin);

```

```

sampleCounter += 2;
int N = sampleCounter - lastBeatTime;
if(Signal < thresh && N > (IBI/5)*3){
    if (Signal < T){
        T = Signal;  }}
if(Signal > thresh && Signal > P){
    P = Signal; }
if (N > 250){
    if ( (Signal > thresh) && (Pulse == false) && (N > (IBI/5)*3)
){
    Pulse = true;
    digitalWrite(blinkPin,HIGH);
    IBI = sampleCounter - lastBeatTime;
    lastBeatTime = sampleCounter;
    if(secondBeat){
        secondBeat = false;
        for(int i=0; i<=9; i++){
            rate[i] = IBI; }}
    if(firstBeat){
        firstBeat = false;
        secondBeat = true;
        sei();
        return; }
    word runningTotal = 0;
    for(int i=0; i<=8; i++){
        rate[i] = rate[i+1];
        runningTotal += rate[i]; }
    rate[9] = IBI;
    runningTotal += rate[9];
    runningTotal /= 10;
    BPM = 60000/runningTotal;
    QS = true;}}
if (Signal < thresh && Pulse == true){
    digitalWrite(blinkPin,LOW);

```

```
Pulse = false;
amp = P - T;
  thresh = amp/2 + T;
P = thresh;
T = thresh;}
if (N > 2500){
  thresh = 512;
  P = 512;
  T = 512;
  lastBeatTime = sampleCounter;
  firstBeat = true;
  secondBeat = false; }
sei();}
```

## Program MIT App Inventor

```
initialize global SUHU to create empty list
initialize global BPM to create empty list
initialize global data to create empty list

when ListPicker1 .BeforePicking
do set ListPicker1 . Elements to BluetoothClient1 . AddressesAndNames

when ListPicker1 .AfterPicking
do if call BluetoothClient1 . Connect
    address ListPicker1 . Selection
then set ListPicker1 . Elements to BluetoothClient1 . AddressesAndNames
    if BluetoothClient1 . IsConnected
    then set hasilbluetooth . Text to "Konek"
        set hasilbluetooth . TextColor to green
    else set hasilbluetooth . Text to "Gk konek"
        set hasilbluetooth . TextColor to red

when Clock1 .Timer
do if BluetoothClient1 . IsConnected and call BluetoothClient1 . BytesAvailableToReceive > 0
then set global data to split text call BluetoothClient1 . ReceiveText
    numberOfBytes call BluetoothClient1 . BytesAvailableToReceive
    at " "
    if length of list list get global data >= 1
    then set global BPM to select list item list get global data
        index 1
        set hasil1 . Text to get global BPM
        if get global BPM < 60
        then set Texting1 . PhoneNumber to TextBox1 . Text
            set Texting1 . Message to join split text "Kondisi pasien tidak baik, pasien mengalami geja..."
                at " "
                get global BPM
            call Texting1 . SendMessage
            set Clock1 . TimerInterval to call Clock1 . Add Seconds
                instant Texting1 . Message
                quantity 5
        else if get global BPM > 100
        then set Texting1 . PhoneNumber to TextBox1 . Text
```

```

when Button1.Click
do
  get global BPM > 100
  then
    set Texting1.PhoneNumber to TextBox1.Text
    set Texting1.Message to join split text "Kondisi pasien tidak baik, pasien mengalami gejala..."
    get global BPM
    call Texting1.SendMessage
    set Clock1.TimerInterval to call Clock1.Add Seconds
    instant Texting1.Message
    quantity 5
  if
    length of list list get global data >= 2
  then
    set global SUHU to select list item list get global data
    index 2
    set hasil2.Text to get global SUHU
    if
      get global SUHU <= 34.9
    then
      set Texting1.PhoneNumber to TextBox1.Text
      set Texting1.Message to join split text "Kondisi pasien tidak baik, pasien mengalami gejala..."
      get global SUHU
      call Texting1.SendMessage
      set Clock1.TimerInterval to call Clock1.Add Seconds
      instant Texting1.Message

```

```

      set Clock1.TimerInterval to call Clock1.Add Seconds
      instant Texting1.Message
      quantity 5
    else if
      get global SUHU >= 37.6
    then
      set Texting1.PhoneNumber to TextBox1.Text
      set Texting1.Message to join split text "Kondisi pasien tidak baik, pasien mengalami gejala..."
      get global SUHU
      call Texting1.SendMessage
      set Clock1.TimerInterval to call Clock1.Add Seconds
      instant Texting1.Message
      quantity 5

```

```

when Button4.Click
do
  call TinyDB1.ClearAll
  set DataTersimpan1.Text to
  set DataTersimpan2.Text to

```

```

when Button2.Click
do
  call TinyDB1.StoreValue
  tag BPM
  valueToStore hasil1.Text
  call TinyDB1.StoreValue
  tag SUHU
  valueToStore hasil2.Text

```

```

when Button1.Click
do
  call BluetoothClient1.Disconnect
  set hasilbluetooth.Text to
  set hasilbluetooth.TextColor to

```

```

when Button3.Click
do
  set DataTersimpan1.Text to call TinyDB1.GetValue
  tag BPM
  valueIfTagNotFound hasil1.Text
  set DataTersimpan2.Text to call TinyDB1.GetValue
  tag SUHU
  valueIfTagNotFound hasil2.Text

```



### Perhitungan Rata-rata ( $\bar{x}$ )

Adi A

Modul	Pembanding
$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,1+36,2+36,2)}{3} \\ &= \frac{108,5}{3} \\ &= 36,17\end{aligned}$	$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,3+36,3+36,3)}{3} \\ &= \frac{108,9}{3} \\ &= 36,3\end{aligned}$

Adi S

Modul	Pembanding
$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(35,3+35,6+35,6)}{3} \\ &= \frac{106,5}{3} \\ &= 35,5\end{aligned}$	$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(35,5+35,8+35,9)}{3} \\ &= \frac{107,2}{3} \\ &= 35,73\end{aligned}$

Afif

Modul	Pembanding
$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(35,9+35,9+35,9)}{3} \\ &= \frac{107,7}{3} \\ &= 35,9\end{aligned}$	$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,1+36,1+36)}{3} \\ &= \frac{108,2}{3} \\ &= 36,07\end{aligned}$

Faris

Modul

$$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(35,9+35,9+35,9)}{3} \\ &= \frac{107,7}{3} \\ &= 35,9\end{aligned}$$

Pembanding

$$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,2+36,2+36,2)}{3} \\ &= \frac{108,6}{3} \\ &= 36,2\end{aligned}$$

Sigit

Modul

$$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(35+35,1+35)}{3} \\ &= \frac{105,1}{3} \\ &= 35,03\end{aligned}$$

Pembanding

$$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(34,8+34,8+34,8)}{3} \\ &= \frac{104,4}{3} \\ &= 34,8\end{aligned}$$

Fajar

Modul

$$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,2+36,3+36,4)}{3} \\ &= \frac{108,9}{3} \\ &= 36,3\end{aligned}$$

Pembanding

$$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,5+36,5+36,5)}{3} \\ &= \frac{109,5}{3} \\ &= 36,5\end{aligned}$$

Perdanaditya

Modul

$$\begin{aligned}\bar{X} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,9+36,9+36,9)}{3}\end{aligned}$$

Pembanding

$$\begin{aligned}\bar{Y} &= \frac{\sum Xn}{n} \\ &= \frac{(X1+X2+X3)}{3} \\ &= \frac{(36,9+36,9+36,9)}{3}\end{aligned}$$

$$= \frac{110,7}{3}$$

$$= 36,9$$

$$= \frac{110,7}{3}$$

$$= 36,9$$

Bayu

Modul

$$\bar{X} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36,7+36,7+36,7)}{3}$$

$$= \frac{110,1}{3}$$

$$= 36,7$$

Pembanding

$$\bar{Y} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36,7+36,7+36,7)}{3}$$

$$= \frac{110,1}{3}$$

$$= 36,7$$

Ridho

Modul

$$\bar{X} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36,2+36,2+36,2)}{3}$$

$$= \frac{108,6}{3}$$

$$= 36,2$$

Pembanding

$$\bar{Y} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36+36+36)}{3}$$

$$= \frac{108}{3}$$

$$= 36$$

Taufik

Modul

$$\bar{X} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36,1+36,1+36,1)}{3}$$

$$= \frac{108,3}{3}$$

$$= 36,1$$

Pembanding

$$\bar{Y} = \frac{\sum Xn}{n}$$

$$= \frac{(X1+X2+X3)}{3}$$

$$= \frac{(36,2+36,2+36,2)}{3}$$

$$= \frac{108,6}{3}$$

$$= 36,2$$

## Perhitungan Standar Deviasi

Adi A

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,1-36,17)^2+(36,2-36,17)^2+(36,2-36,17)^2}}{3-1} \\ &= \frac{\sqrt{(-0,07)^2+(0,03)^2+(0,03)^2}}{2} \\ &= \frac{\sqrt{4,9 \times 10^{-3}+9 \times 10^{-9}+9 \times 10^{-9}}}{2} \\ &= \sqrt{3,35 \times 10^{-3}} \\ &= 0,058\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,3-36,3)^2+(36,3-36,3)^2+(36,3-36,3)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Adi S

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(35,3-35,5)^2+(35,6-35,5)^2+(35,6-35,5)^2}}{3-1} \\ &= \frac{\sqrt{(-0,2)^2+(0,1)^2+(0,1)^2}}{2} \\ &= \frac{\sqrt{0,04+0,01+0,01}}{2} \\ &= \sqrt{0,03} \\ &= 0,173\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(35,5-35,73)^2+(35,8-35,73)^2+(35,9-35,73)^2}}{3-1} \\ &= \frac{\sqrt{(-0,23)^2+(0,07)^2+(0,17)^2}}{2} \\ &= \frac{\sqrt{5,29 \times 10^{-2}+4,9 \times 10^{-3}+2,89 \times 10^{-2}}}{2} \\ &= \sqrt{0,04} \\ &= 0,208\end{aligned}$$

Afif

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(35,9-35,9)^2+(35,9-35,9)^2+(35,9-35,9)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,1-36,07)^2+(36,1-36,07)^2+(36-36,07)^2}}{3-1} \\ &= \frac{\sqrt{(0,03)^2+(0,03)^2+(-0,07)^2}}{2} \\ &= \frac{\sqrt{9 \times 10^{-9}+9 \times 10^{-9}+4,9 \times 10^{-3}}}{2} \\ &= \sqrt{3,35 \times 10^{-3}} \\ &= 0,058\end{aligned}$$

Faris

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(35,9-35,9)^2+(35,9-35,9)^2+(35,9-35,9)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,2-36,2)^2+(36,2-36,2)^2+(36,2-36,2)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Sigit

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(35-35,03)^2+(35,1-35,03)^2+(35-35,03)^2}}{3-1} \\ &= \frac{\sqrt{(-0,03)^2+(0,07)^2+(-0,03)^2}}{2} \\ &= \frac{\sqrt{9 \times 10^{-9}+4,9 \times 10^{-3}+9 \times 10^{-9}}}{2} \\ &= \sqrt{3,35 \times 10^{-3}} \\ &= 0,058\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(34,8-34,8)^2+(34,8-34,8)^2+(34,8-34,8)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Fajar

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,2-36,3)^2+(36,3-36,3)^2+(36,4-36,3)^2}}{3-1} \\ &= \frac{\sqrt{(-0,1)^2+(0)^2+(0,1)^2}}{2} \\ &= \frac{\sqrt{0,01+0+0,01}}{2} \\ &= \sqrt{0,01} \\ &= 0,1\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,5-36,5)^2+(36,5-36,5)^2+(36,5-36,5)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Adit

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,9-36,9)^2+(36,9-36,9)^2+(36,9-36,9)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,9-36,9)^2+(36,9-36,9)^2+(36,9-36,9)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Bayu

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,7-36,7)^2+(36,7-36,7)^2+(36,7-36,7)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,7-36,7)^2+(36,7-36,7)^2+(36,7-36,7)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Muril

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,2-36,2)^2+(36,2-36,2)^2+(36,2-36,2)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36-36)^2+(36-36)^2+(36-36)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Taufik

Modul

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,1-36,1)^2+(36,1-36,1)^2+(36,1-36,1)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

Pembanding

$$\begin{aligned}\text{Std} &= \frac{\sqrt{(X1-\bar{X})^2+(X2-\bar{X})^2+(X3-\bar{X})^2}}{n-1} \\ &= \frac{\sqrt{(36,2-36,2)^2+(36,2-36,2)^2+(36,2-36,2)^2}}{3-1} \\ &= \frac{\sqrt{(0)^2+(0)^2+(0)^2}}{2} \\ &= \frac{\sqrt{0+0+0}}{2} \\ &= \sqrt{0} \\ &= 0\end{aligned}$$

### Perhitungan *Error*

Adi A

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,3-36,17}{36,3} \times 100\% \\ &= 0,37\%\end{aligned}$$

Adi S

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{35,73-35,5}{35,73} \times 100\% \\ &= 0,65\%\end{aligned}$$

Afif

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,07-35,9}{36,07} \times 100\% \\ &= 0,46\%\end{aligned}$$

Faris

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,2-35,9}{36,2} \times 100\% \\ &= 0,81\%\end{aligned}$$

Sigit

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{34,8-35,03}{34,8} \times 100\% \\ &= 0,67\%\end{aligned}$$

Fajar

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,5-36,3}{36,5} \times 100\% \\ &= 0,55\%\end{aligned}$$

Adit

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,9-36,9}{36,9} \times 100\% \\ &= 0\%\end{aligned}$$

Bayu

$$\begin{aligned}\text{Error} &= \frac{\bar{Y}-\bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,7-36,7}{36,7} \times 100\% \\ &= 0\%\end{aligned}$$

Ridho

$$\begin{aligned}\text{Error} &= \frac{\bar{Y} - \bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36 - 36,2}{36} \times 100\% \\ &= 0,56\%\end{aligned}$$

Taufik

$$\begin{aligned}\text{Error} &= \frac{\bar{Y} - \bar{X}}{\bar{Y}} \times 100\% \\ &= \frac{36,2 - 36,1}{36,2} \times 100\% \\ &= 0,28\%\end{aligned}$$