Koding Program Utama

```
#include "SoftwareSerial.h"
#pragma GCC diagnostic ignored "-Wwrite-strings"
#include "SIM900.h"
#include "sms.h"
#include <RFID.h>
#include <SPI.h>
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x3F,2,1,0,4,5,6,7,3, POSITIVE);

#define SS_PIN 10
#define RST_PIN 9

RFID rfid(SS_PIN,RST_PIN);
SMSGSM sms;
boolean started=false;
char smsbuffer[160];
char n[20];

const int button = 4;
const int buzzer = 8;
const int doorLock = 7;

int serNum[5];
int cards [][5] =      {
  {136, 4, 100, 93, 181}, //nomor ID E-KTP
  {136, 4, 138, 58, 60},  //nomor ID E-KTP
  {136, 4, 102, 71, 173}  //nomor ID E-KTP
  };
```

```
int buttonState = 0;
boolean access = false;
int alarm = 0;
uint8_t alarmStat = 0;
uint8_t maxError = 3;

void setup(){

    SPI.begin();
    lcd.clear();
    rfid.init();
    pinMode(doorLock, OUTPUT);
    pinMode(button, INPUT);
    digitalWrite(doorLock, LOW);
    lcd.begin(16,2);
    lcd.print("LOADING... ");

   if (gsm.begin(9600))
   {
     started=true;
     lcd.clear();
     lcd.setCursor (0,0);
     lcd.print("TEKNIK KOMPUTER");
     lcd.setCursor (0,1);
     lcd.print("     POLSRI     ");
     delay(3000);
     sms.SendSMS("0895610803504","SMS Telah Siap");

   }
   else{lcd.clear();lcd.print("GSM ERROR");
   }
```

```
}

void loop(){

 if (alarm >= maxError){
   alarmStat = 1;    }

  if (alarmStat == 0){
  lcd.setCursor (0,0);
  lcd.print("TEMPELKAN E-KTP");
  lcd.setCursor (0,1);
  lcd.print("---------------");



   if(rfid.isCard()){
       if(rfid.readCardSerial()){
           for(int x = 0; x < sizeof(cards); x++){
             for(int i = 0; i < sizeof(rfid.serNum); i++ ){
                 if(rfid.serNum[i] != cards[x][i]) {
                     access = false;
                     break;
                 } else {
                     access = true;
                 }
             }
             if(access) break;
           }
       }

      if(access){
```

```
  {
   digitalWrite(doorLock, HIGH);

   alarmStat = 0;
   alarm = 0;
   }
    lcd.setCursor (0,0);
    lcd.print(" Silahkan Masuk ");
    lcd.setCursor (0,1);
    lcd.print("Akan Terkunci  ");
    for(int i=10; i>0; i--){
    lcd.setCursor (14,1); lcd.print(i);
    lcd.print(F("  ")); delay (1000);
    }
    digitalWrite(doorLock, LOW);

} else {
    alarm = alarm+1;

    lcd.setCursor (0,0);
    lcd.print(" Akses Ditolak! ");
    lcd.setCursor (0,1);
    lcd.print(" -------------- ");

    tone(buzzer, 2000);
    delay(200);
    noTone(buzzer);
    delay(200);
    tone(buzzer, 2000);
    delay(200);
    noTone (buzzer);
```

```
            delay(1000);
          noTone (buzzer);

          lcd.setCursor (0,0);
          lcd.print("   E-KTP Anda   ");
          lcd.setCursor (0,1);
          lcd.print("Tidak Terdaftar ");
          delay(2000);
          lcd.clear();
      }
    }

    rfid.halt();
}
else {

  lcd.setCursor (0,0);
  lcd.print("  PERINGATAN!!  ");
  lcd.setCursor (0,1);
  lcd.print("SISTEM TERKUNCI");
  tone(buzzer, 1500);

  /*
  delay(3000);
  noTone (buzzer);
  delay(1000);

  tone(buzzer, 1500);
  delay(4000);
  noTone (buzzer);
  delay(2000);
```

```
  tone(buzzer, 1500);
  delay(5000);
  noTone (buzzer);
  delay(3000);

  tone(buzzer, 1500);
  delay(6000);
  noTone (buzzer);
  delay(4000);

  tone(buzzer, 1500);
  delay(7000);
  noTone (buzzer);
  */

  sms.SendSMS("0895610803504","Ada yang mencoba membuka kunci pintu.");
  //delay(500);
  tone(buzzer, 1500);
  delay(8000);
  noTone(buzzer);

alarmStat = 0;
alarm = 0;

  }

   buttonState = digitalRead(button);
   if (buttonState == HIGH){
   digitalWrite(doorLock,HIGH);
   lcd.setCursor(0,0);
```

```
  lcd.print(" Kunci Terbuka  ");
  lcd.setCursor(0,1);
  lcd.print(" -------------  ");
  delay(7000);
  digitalWrite(doorLock,LOW);
  lcd.clear();

  alarmStat = 0;
  alarm = 0;

 }

 int pos=0;
if(started){
 pos=sms.IsSMSPresent(SMS_ALL);
 if(pos){
   sms.GetSMS(pos,n,smsbuffer,100);

   if(!strcmp(smsbuffer,"buka")){
   digitalWrite(doorLock,HIGH);
   lcd.setCursor(0,0);
   lcd.print(" Kunci Terbuka  ");
   lcd.setCursor(0,1);
   lcd.print(" -------------  ");

   // sms.SendSMS("0895610803504","Kunci telah terbuka");

   delay(10000);
   digitalWrite(doorLock,LOW);

   }
```

```
    delsms();
  alarmStat = 0;
  alarm = 0;
  }
 }
}

void delsms()
{
  for (int i=0; i<10; i++)
  {
      int pos=sms.IsSMSPresent(SMS_ALL);
      if (pos!=0)
      {
        if (sms.DeleteSMS(pos)==1){}else{}
      }
  }
}
```

Koding Program PengambilanNomor ID E-KTP

```
#include <RFID.h>
/*
* Read a card using a mfrc522 reader on your SPI interface
* Pin layout should be as follows (on Arduino Uno):
* MOSI: Pin 11 / ICSP-4
* MISO: Pin 12 / ICSP-1
* SCK: Pin 13 / ISCP-3
* SS/SDA: Pin 10
* RST: Pin 9
*/
#include <SPI.h>
#include <RFID.h>

#define SS_PIN 10
#define RST_PIN 9

RFID rfid(SS_PIN,RST_PIN);
int led = 7;
intserNum[7];
intcards[][7] = {
  {0x04, 0x64, 0x5D, 0x2A, 0xAB, 0x2D, 0x80},
};

bool access = false;
void setup(){
Serial.begin(9600);
SPI.begin();
rfid.init();
```

```
Serial.println("Dekatkan RFID Tag pada sensor RFID RC522");
pinMode(led, OUTPUT);
digitalWrite(led, LOW);

}

void loop(){

   if(rfid.isCard()){

      if(rfid.readCardSerial()){
Serial.print(rfid.serNum[0]);
Serial.print(" ");
Serial.print(rfid.serNum[1]);
Serial.print(" ");
Serial.print(rfid.serNum[2]);
Serial.print(" ");
Serial.print(rfid.serNum[3]);
Serial.print(" ");
Serial.print(rfid.serNum[4]);
Serial.println("");
        //  Serial.print(rfid.serNum[5]);
        //  Serial.println("");
        //  Serial.print(rfid.serNum[6]);
        //  Serial.println("");
        //  Serial.print(rfid.serNum[7]);
        //  Serial.println("");

for(int x = 0; x <sizeof(cards); x++){
for(inti = 0; i<sizeof(rfid.serNum); i++ ){
                if(rfid.serNum[i] != cards[x][i]) {
```

```
                access = false;
                break;
            } else {
                access = true;
            }
        }
        if(access) break;
      }
    }

    if(access){
Serial.println("-----------------");
digitalWrite(led, HIGH);
delay(2000);
digitalWrite(led, LOW);

    } else {
Serial.println("-----------------");
digitalWrite(led, HIGH);
delay(500);
digitalWrite(led, LOW);
delay(500);
digitalWrite(led, HIGH);
delay(500);
digitalWrite(led, LOW);
    }
  }


rfid.halt();
```

}