```
#include <SPI.h>
#include <MFRC522.h>
#include <SoftwareSerial.h>
#define SIM800_TX_PIN 1
#define SIM800_RX_PIN 8
#define SS_PIN 10
#define RST_PIN 9

SoftwareSerial serialSIM800(SIM800_TX_PIN,SIM800_RX_PIN);
MFRC522 mfrc522(SS_PIN, RST_PIN);
const int ledPin =  3;  // Create MFRC522 instance.
int ledPin1 =  2;
int Ngetar =  4;
int Pgetar =  6;
int alaram = 0;
int buzzer = 5;
int door = 7;
void setup()
{
  Serial.begin(9600);   // Initiate a serial communication
  SPI.begin();      // Initiate  SPI bus
  Serial.println("Inisialisasi modul SIM800L");
  serialSIM800.begin(9600);
  delay(1000);

  pinMode(ledPin, OUTPUT);
  pinMode(door, OUTPUT);
  pinMode(buzzer, OUTPUT);
  pinMode(ledPin1, OUTPUT);
  pinMode(Pgetar, OUTPUT);
  pinMode(Ngetar, INPUT);
  mfrc522.PCD_Init();   // Initiate MFRC522
```

```
  Serial.println("Approximate your card to the reader...");
  Serial.println();

}
void loop()
{


   //koding sensor getaran
  long measurement =TP_init();
  delay(50);
  Serial.print("GETARAN = ");
  Serial.println(measurement);
  if (measurement > 30000){
    Serial.println("ALARAM MENYALA");
    digitalWrite(buzzer, HIGH);
    delay(3000);
    //Set mode teks untuk pengiriman sms
    serialSIM800.write("AT+CMGF=1\r\n");
    delay(1000);
    //Mulai mengirim Sms
    serialSIM800.write("AT+CMGS=\"0895322137259\"\r\n");
    delay(1000);
    serialSIM800.write("Ruangan dalam Bahaya, Getaran AKTIF ");
    delay(1000);
    serialSIM800.write((char)26); //CTRL-Z
    delay(1000);
    Serial.println("SMS TERKIRIM!!");
  }
  else{
    digitalWrite(buzzer, LOW);
  }
```

```
  // Look for new cards
  if ( ! mfrc522.PICC_IsNewCardPresent())
  {
    return;
  }
  // Select one of the cards
  if ( ! mfrc522.PICC_ReadCardSerial())
  {
    return;
  }
  //Show UID on serial monitor
  Serial.print("UID tag :");
  String content= "";
  byte letter;
  for (byte i = 0; i < mfrc522.uid.size; i++)
  {
     Serial.print(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");
     Serial.print(mfrc522.uid.uidByte[i], HEX);
     content.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" :
" "));
     content.concat(String(mfrc522.uid.uidByte[i], HEX));
  }
  Serial.println();
  Serial.print("PESAN : ");
  content.toUpperCase();
  if (content.substring(1) == "D3 00 92 AB") //change here the UID
of the card/cards that you want to give access
  {
    Serial.println("AKSES DITERIMA");
    if (digitalRead(door) ==0) {
    digitalWrite(door, HIGH);
    Serial.println("PINTU TERBUKA");
    }
```

```
    else {
    digitalWrite(door, LOW);
    Serial.println("PINTU TERTUTUP");
    }
    if (digitalRead(Pgetar) ==0 )
    {
    digitalWrite(Pgetar, HIGH);
    Serial.println("SENSOR GETARAN PADAM");
    }
    else {
    digitalWrite(Pgetar, LOW);
    Serial.println("SENSOR GETARAN MENYALA");
    }
    digitalWrite(ledPin, HIGH);
    Serial.println();
    delay(2000);
    digitalWrite(ledPin, LOW);

  }

else   {
    Serial.println("AKSES DITOLAK");
    digitalWrite(ledPin1, HIGH);
    Serial.println();
    delay(2000);
    digitalWrite(ledPin1, LOW);
    alaram=alaram+1;
  }

if (alaram >=3) {
 Serial.println("ALARAM MENYALA");
 digitalWrite(buzzer, HIGH);
```

```
  delay(3000);
  alaram=0;
  //Set mode teks untuk pengiriman sms
  serialSIM800.write("AT+CMGF=1\r\n");
  delay(1000);
  //Mulai mengirim Sms
  serialSIM800.write("AT+CMGS=\"0895322137259\"\r\n");
  delay(1000);
  serialSIM800.write("Ruangan dalam Bahaya, Kunci salah
digunakan");
  delay(1000);
  serialSIM800.write((char)26); //CTRL-Z
  delay(1000);
  Serial.println("SMS TERKIRIM!!");
  }

}

long TP_init(){
  delay(10);
  long measurement=pulseIn (Ngetar, HIGH);  //wait for the pin to
get HIGH and returns measurement
  return measurement;
 }
```