HEALTH MONITORING SYSTEM

PROJECT REPORT

```
#include <ESP8266WiFi.h>

#include "Adafruit_MQTT.h"

#include "Adafruit_MQTT_Client.h"

#define WLAN_SSID "Cloud_Wifi"

#define WLAN_PASS "12345678"

#define AIO_SERVER "io.adafruit.com"

#define AIO_SERVERPORT 1883

#define AIO_USERNAME "Cloud_Project"

#define AIO_KEY "8d2a67ad16564fb49b5ccaf7bc045a2f"

WiFiClient client;

Adafruit_MQTT_Client mqtt(&client, AIO_SERVER, AIO_SERVERPORT,

AIO_USERNAME, AIO_KEY);

Adafruit_MQTT_Publish ecgclient = Adafruit_MQTT_Publish(&mqtt,

AIO_USERNAME"/feeds/ECG Data");

void MQTT_connect(); void setup() {

Serial.begin(115200); delay(10);

pinMode(D5,INPUT);

pinMode(D6,INPUT);

Serial.println(F("Adafruit MQTT demo"));

// Connect to WiFi access point.

Serial.println(); Serial.println();

Serial.print("Connecting to ");

Serial.println(WLAN_SSID);

WiFi.begin(WLAN_SSID, WLAN_PASS);

while(WiFi.status() != WL_CONNECTED) { delay(500);
```

```arduino
    Serial.print(".");

  }

  Serial.println();

  Serial.println("WiFi connected");

  Serial.println("IP address: "); Serial.println(WiFi.localIP());


} void loop()

{

  MQTT_connect();

  int ecgval;

  if((digitalRead(D5)==1)||(digitalRead(D6)==1))

  {

  Serial.println('!');

  }

  else

  {

  ecgval=analogRead(A0);

  }

  Serial.print(F("\nSending ECG Value "));

  Serial.print(ecgval);

Serial.print("..."); if (!

ecgclient.publish(ecgval)) {

Serial.println(F("Failed"));

  } else {

  Serial.println(F("OK!"));

  }

  delay(1000);


  if(! mqtt.ping()) {

mqtt.disconnect();

  }
```

```cpp
  delay(1000);
}
void MQTT_connect() {
 int8_t ret; if
(mqtt.connected()) {
return;
 }
Serial.print("Connecting to MQTT... ");
uint8_t retries = 3;
 while ((ret = mqtt.connect()) != 0) { // connect will return 0 for connected
 Serial.println(mqtt.connectErrorString(ret));
 Serial.println("Retrying MQTT connection in 5 seconds...");
mqtt.disconnect();
 delay(5000);
retries--; if
(retries == 0) {
while (1);
 }
 }
 Serial.println("MQTT Connected!");
}
```