NODE CODE AND DATA ACQUISITION

1. We import some of necessarily libraries.

```
#include <MPU6050.h>
#include <Wire.h>
#include <SoftwareSerial.h>
```

2. We create a new serial port and assign it's RX|TX ports to 11th and 12th ports of our ardiuno nano.

```
SoftwareSerial BTSerial(11, 12); // RX | TX
```

3. We define some variables for use in the continuation of our code.

```
MPU6050 MPU;

int ivmeX , ivmeY , ivmeZ , GyroX , GyroY , GyroZ;
float tmp;
```

4. We chose serial port frequency that we going to use and activate the serial connection.

```
void setup() {

  Serial.begin(115200);
  BTSerial.begin(115200);
  Wire.begin();
  MPU.initialize();

}
```

5. After that we are going to get in to the loop to our code and we get acceleration, gyro and temperature from our sensors. We take that data to our variables.

```
MPU.getAcceleration(&ivmeX, &ivmeY, &ivmeZ);
MPU.getRotation(&GyroX, &GyroY, &GyroZ);
tmp = MPU.getTemperature();
```

6. After we get variables we print datas to Bluetooth serial port.

```
BTSerial.print(ivmeX);
BTSerial.print(" ");
BTSerial.print(ivmeY);
BTSerial.print(" ");
BTSerial.print(ivmeZ);
BTSerial.print(" ");
BTSerial.print(tmp/340.00+36.53);
BTSerial.print(" ");
BTSerial.print(GyroX);
BTSerial.print(" ");
BTSerial.print(GyroY);
BTSerial.print(" ");
BTSerial.print(GyroZ);
BTSerial.print(" ");
```

7. We get data from sensors that we product from film resistor and copper. And we print data to bluetooth serial.

```
int Serial_1 = analogRead(A0);
BTSerial.print(Serial_1);
BTSerial.print(" ");
int Serial_2 = analogRead(A1);
BTSerial.print(Serial_2);
BTSerial.print(" ");
int Serial_3 = analogRead(A2);
BTSerial.println(Serial_3);
```