

GAS LEAKAGE MONITORING AND ALERTING SYSTEM

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Project Name	Gas Leakage Monitoring and Alerting System for Industries

WOKWI SIMULATION OUTPUT:

The screenshot displays the Wokwi web-based IDE. The left pane shows an Arduino sketch named 'sketch.ino' with the following code:

```
1 #include <time.h>
2 #include <WiFi.h>
3 #include <PubSubClient.h>
4
5 bool exhaust_fan_on = false;
6 bool sprinkler_on = false;
7 float temperature = 0;
8 int gas_level = 0;
9 int flame = 0;
10 String flame_status = "";
11 String accident_status = "";
12 String sprinkler_status = "";
13 void setup() {
14   Serial.begin(99900);
15 }
16 void loop() {
17   //setting a random seed
18   srand(time(0));
19   //initial variable
20   temperature = random(-
21     20,125);
22   gas_level = random(0,100);
23   int flamereading =
24     random(200,1024);
25   flame =
26     map(flamereading,0,1024,0,
27     2);
28   //set a flame status
29   Serial.print("Temperature : ");
30   Serial.println(temperature);
31   Serial.print("Gas Level : ");
32   Serial.println(gas_level);
33   Serial.print("Flame : ");
34   Serial.println(flame);
35   Serial.print("Flame Status : ");
36   Serial.println(flame_status);
37   Serial.print("Gas Status : ");
38   Serial.println(gas_status);
39   Serial.print("Sprinkler Status : ");
40   Serial.println(sprinkler_status);
41   Serial.print("Exhaust fan Status : ");
42   Serial.println(exhaust_fan_status);
43 }
```

The right pane shows the 'Simulation' output. It includes a timer at 00:07.864 and a battery level at 71%. The output displays the following status values:

Temperature : 67.00
Gas_level : 42
Flame : 0
Flame Status : No Fire
Gas Status : No Gas Leakage Detected
Sprinkler Status : Sprinkler OFF
Exhaust fan Status : Fan OFF

After a separator line (-----#-----), the output shows a second state:

Temperature : 93.00
Gas_level : 27
Flame : 1
Flame Status : Fire is Detected
Gas Status : No Gas Leakage Detected
Sprinkler Status : Sprinkler ON
Exhaust fan Status : Fan OFF

The bottom of the image shows a Windows taskbar with the system clock at 9:43 PM on 18/11/2022.