**Module:**

**STW307CR-Interactive Pervasive Computing**

**Assignment Title:  
Coursework 1**

**Intake:**

SEPTEMBER/NOVEMBER 2019

**Submitted By:**

CU ID: 10173183

College ID**:** 190199

Name: Gauri Shankar Sharma

**Submitted To:**

Shrawan Thakur

**Softwarica College in collaboration with**

**Coventry University**

Assessment Submission and Declaration Form

PLEASE COMPLETE SECTIONS IN BLOCK CAPITALS

|  |  |  |  |
| --- | --- | --- | --- |
| **Group work**  If group work ALL student names and IDs must be added below- on behalf of all members; Name................................................... ID......................  Name................................................... ID......................  Name................................................... ID......................  Name................................................... ID......................  Name................................................... ID...................... | | **Surname:** SHARMA | |
| **First Name:** GAURI SHANKAR | |
| **Word Count:** ­2 | |
| **Student number (ID):** 10173183 | | **Attempt:**  FIRST: ✓ RESIT: | |
| **Assignment Due Date:** 00/01/2022 | | **Module Code:** STW307CR | |
| **Program Title:** BSC (HONS) COMPUTING | | | |
| **Module Title:** Interactive Pervasive Computing | | | |
| **Name of Supervisor or Tutor (if applicable):**  Shrawan Thakur | | **Individual Work:**  ✓ | **Group Work:** |
| **Assessment Title and Type (i.e., essay, journal, CD,**  **Dissertation)** | | Coursework 1 |  |
| *I have read the Softwarica College rules and regulations on the submission of academic work and in particular the sections concerning misconduct in assessment, including plagiarism, collusion, and cheating. I certify that this assignment is the result of my own (or group) work contains no unreferenced material from another source and does not contravene any part of the College’s rules and regulations.*  *I acknowledge that in submitting this work I am declaring that I (or my group) are fit to be assessed and that a deferral may not be requested following hand-in.*  *I confirm that an electronic version of the item to be assessed where appropriate) is available and will be made available to the College by the specified deadline via Moodle.*  *In respect of group assignments, the submission of this work is made on the basis that all group members are jointly and severally responsible for the work presented for assessment and that by handing in this item for assessment, all group members acknowledge and confirm the statements above and that ALL student names and ID numbers for the group are listed.* | | | |
|  | | | |
| **Student(s) Signature:** | **College Stamp:** | | |

# **Introduction**

Sometimes small mistakes like forgetting to turn off LPG gas or living fired match can lead to a huge amount of property loss due to fire. These types of catastrophes can occur anytime in the home or industrial areas. Gas & Fire detection sensors can be used to prevent losses from these catastrophes but everyone home will not be able to offer the implementation of these sensors in the home due to low economic status. There this project was done to provide a solution to it by making a system that can detect both gas leakage and fire at an affordable cost. This system can be used in the home as well as in workplaces. This system also gives the temperature of the room. This system will turn the buzzer on and send a message to the user whenever gas or fire is detected and also cut off the power of the room. Users can see the sensors' real-time data from the Blynk app. This system will prevent from catching fire and save from huge damage.

# **Aim**

To make an affordable system which can send message to the user after detecting gas leakage or fire.

# **Objectives**

* Learning the mechanism of gas or fire detection system available in the market.
* Searching the required devices and understanding how they works.
* Research on what devices and method can be used additionally to make the system smarter.
* Assembling the required devices at as much low cost as possible.
* Making Circuit and Flowchart diagram for the system for better visualization.
* Writing the required coding to make interaction between the devices.
* Testing the system.

# **Justifications**

The above picture shows that the person has not implemented the gas and fire detection system in the room. And when the room got caught on fire, the person did not know about it. This cost lots of damage to the person’s property and if he had not ran away from the house, then the person would have died inside the house.

Person has implemented the system at the place where there might be a high risk of gas leakage or catching fire. Person can check the gas, fire, and temperature sensors’ real time data and room temperature from the mobile using Blynk app at ani time. If the sensor detects gas or fire, then the buzzer will turn on and then room power will automatically turn off. The system will send gas detection message if it detects gas and fire detection message if it detects fire. And when the detection is terminated then the buzzer will turn off and the power to the room will be turn on again.