Industry-Specific Intelligent Fire Management System

Technology Architecture

| Date | 16 October2022 | |
|--------------|--|--|
| Team ID | PNT2022TMID52559 | |
| ProjectName | Industry-Specific Intelligent Fire Management System | |
| | Aswin Kumar B | |
| Team Members | Malsawmtluanga V L | |
| | Manoj S | |
| | Riyaz Ahamed S | |
| | Sandeep T V | |

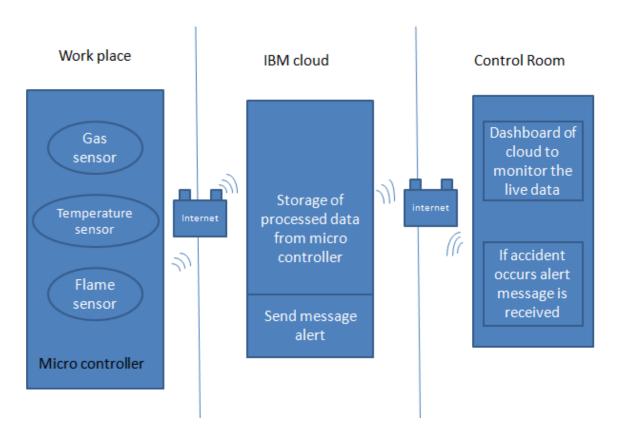


Table-1: Components & Technologies:

| S.No | Component | Description | Technology |
|------|------------------------------|---|--|
| 1. | User Interface | User can interact with node red applicationdashboard | node red |
| 2. | Gas Sensor | gas sensor used detect presence of flamable gas | Embedded C |
| 3. | Temperature Sensor | Used to detect the level of temperature | Embedded C |
| 4. | Flame sensor | Used to detect the presence of fire | Embedded C |
| 5. | Database | Data Type, Configurations etc. | IBM Cloud |
| 6. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 7. | Component - File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | Raspberry Pi microcontroller | To process the data from the sensors | Python |
| 9. | Infrastructure Cloud | Application Deployment on Cloud Cloud Server Configuration: | Technology - IBM Cloud |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|---|--------------------|
| 1. | Open-Source Frameworks | Node Red IBM Watson | IOT, Internet |
| 2. | Security Implementations | Data should be secure and accuracy | Firewall, Firebase |
| 3. | Scalable Architecture | Used to access data from anywhere | IBM Cloud |
| 4. | Availability | Available 24/7 data is transferred all-time | IBM Cloud |
| 5. | Performance | Data are accurate and accessed by internet | IBM Cloud |