

ProjectDesignPhase-3
Solution Architecture

Date	19 september2022
Team ID	PNT2022TMID26584
Project Name	Industry-Specific Intelligent Fire Management System
Maximum Marks	4 Marks

Solution Architecture:

- The architecture of the system. In FDS there are two subsystems. First is Arduino UNO Microcontroller interface and Second is NodeMCU Interface.
- The inputs being connected to the microcontroller and outputs being the Buzzer and Mobile phone. The inputs being the three sensors Ultrasonic Sensor, Temperature and Humidity sensor, Smoke sensor and transmission interfaces are the Bluetooth module and GSM Module. The outputs are of two different type which includes Buzzer and SMS notification.
- The inputs being connected to the NodeMCU and outputs being sent on the cloud. The inputs being the two sensors Temperature and Humidity sensor Smoke sensor and transmission interfaces are the WI-FI and Cloud. The outputs are of the NodeMCU is sent on the cloud through which user can monitor Temperature, Humidity and Smoke sensor values.
- Hardware Required for IOT based Project are :
 - Arduino Uno
 - Ultrasonic Sensor (HC-SR04)
 - Power Supply
 - Smoke Sensor
 - Temperature and Humidity sensor
 - Rectifier
 - Regulator
 - Display
 - NodeMCU
 - PIR Sensor
 - Fire Sensor
 - WIFI Module
 - IOT

- Steps for Creating IOT based Project:

- 1)Hardware Connection.

Sensor Values.

- 2)Configuring Iota Cloud for uploading

- 3)Make changes to Code & Upload.

- 4)Posting to Push bullet via Iot cloud.

Example - Solution Architecture Diagram:

