Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID34240
Project Name	Project - Natural Disasters Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	4 Marks

Technical Architecture:

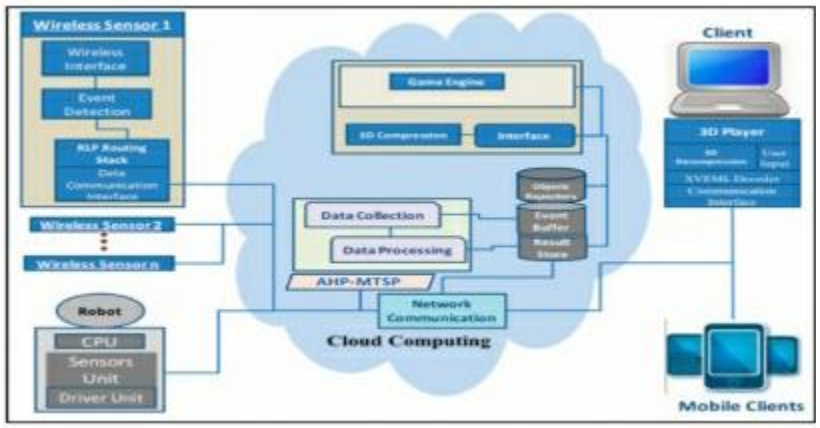

Table-1 : Components & Technologies:

S.NO	Component	Description	Technology
1.	User Interface	Web UI,Node -RED,MIT app	IBM Platform , IBM Node red,IBMCloud
2.	Application Logic-1	Create IBM Watson Platform and create node-red service	IBM Watson,IBM Cloudant service,IBM node-red
3.	Application Logic-2	Develop Python script to publish and subscribe to IBM a i platform	Python
4.	Application Logic-3	Build a web application using node-red service	IBM Node-Red
5.	Database	Data Type,Configurations etc.	MySQL
6.	Cloud Database	Database service on cloud	IBM DB2,IBM Cloudant
7.	File Storage	Developing mobile application to store and receive the sensors information and to react accordingly	Web UI, Python
8.	External API-1	Using this we can monitor the temperature parameters of the hazardous areas in industrial plants.	IBM Temperature Monitoring API
9.	External API-2	Using this smart beacon devices which will be broadcasting the temperature of that particular area.	IBM sensors
10.	Machine Learning Model	Using this we can derive the object recognition model	Object Recognition Model
11.	Infrastructure (Server/Cloud)	Application Deployment on Local System / Cloud Server Configuration	IBM Cloudant,IBM IOT Platform

Table-2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1.	Open source Frameworks	MIT app Inventor	MIT License
2.	Security Implementation	IBM Services	Encryptions,IBM Controls
3.	Scalable Architecture	Sensor-IOT Cloud Based Architecture	Cloud computing and AI
4.	Availability	Mobile, Laptop	MIT App
5.	Performance	Detects the Temperature,Radiation	Sensors