Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	**26 October 2022**
Team ID	**PNT2022TMID33619**
Project Name	**IoT based smart crop protection system for agriculture**
Maximum Name	**4 Marks**

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table2.

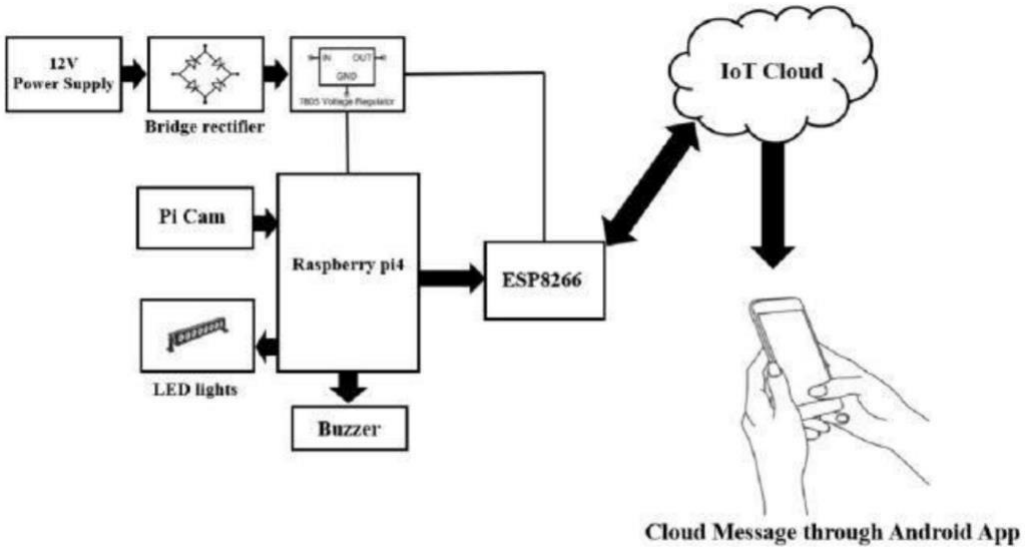

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with the Web UI	App development
2.	Application Logic-1	Logic for a process in the application	Java Objectives
3.	Application Logic-2	Logic for a process in the application	Raspberry pi4 Technology
4.	Application Logic-3	Logic for a process in the application	Bridge rectifier

5.	ESP8266	Networking software, Microcontroller	Analog to digital conversion
6.	IOT cloud	Massive network that supports IOT devices and application.	Cloud Object store service
7.	Bridge rectifier	Wave rectifier	Converts alternating current to direct current
8.	Power supply	Electrical device supplies electrical power	Power system technology

S.No	**Characteristics**	**Description**	**Technology**
1.	**Open-source Frameworks**	**The open-source frameworks used**	**SAN-SAF**
2.	**Security Implementations**	**List all the security / access controls implemented**	**IBM cloud encryptions**
3.	**Scalable Architecture**	**Justify the scalability of architecture (3 – tier, Micro-services)**	**IBM cloud Architecture**
4.	**Availability**	**Justify the availability of applications (e.g. use of load balancers, distributed servers etc.)**	**Web Application can even be used by the framers in the horticulture**
5.	**Performance**	**Design consideration for the performance of the application**	**Since the web application is high efficient, it can be used by the farmers irrespective of time.**