

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	15-11-2022
Team ID	PNT2022TMID44961
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.

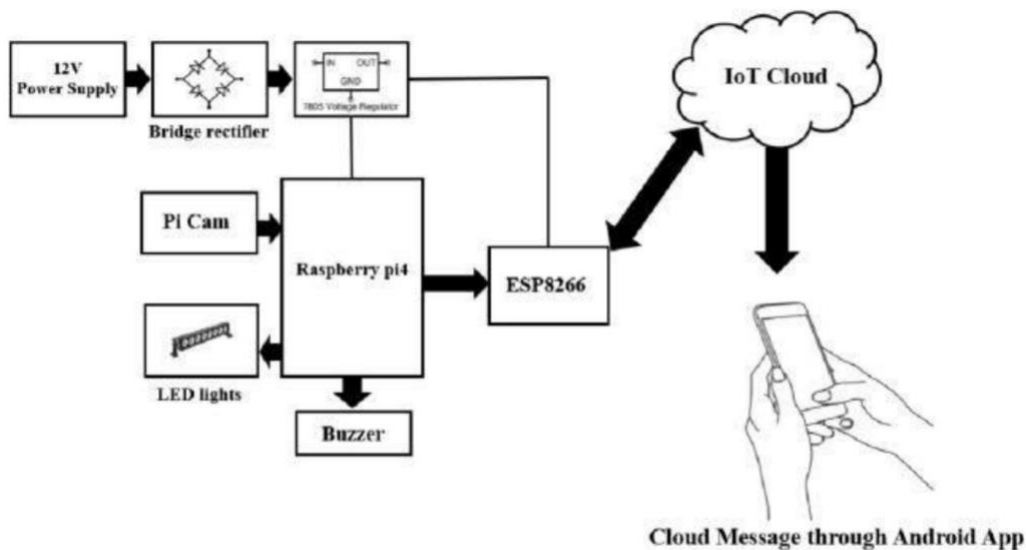


Table-1: Components & Technologies:

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.