PROJECT DESIGN PHASE-II
TECHNOLOGY STACK
(ARCHITECTURE & STACK)

TEAM ID	PNT2022TMID31686
PROJECT NAME	IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE.

TECHNICAL ARCHITECTURE:

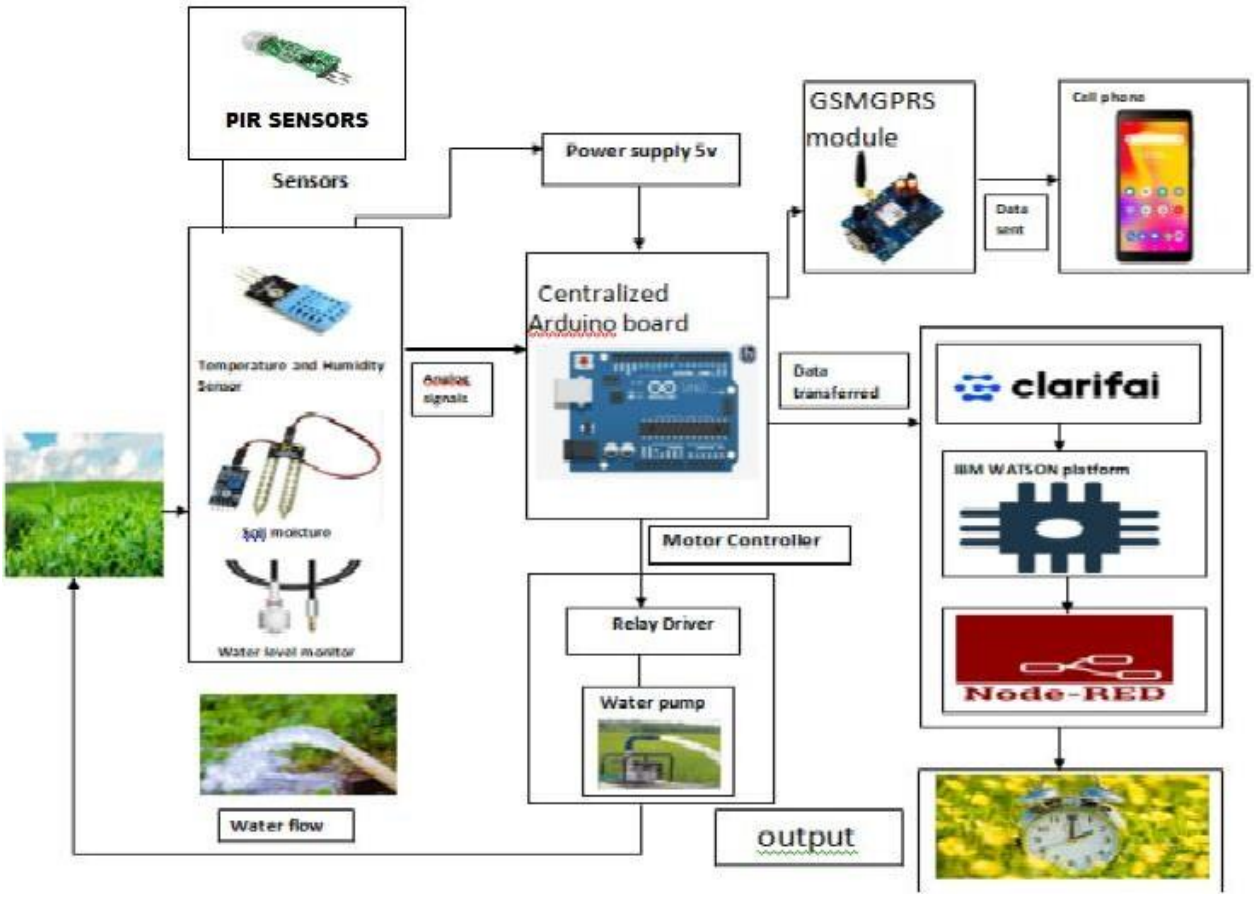

Table-1 :

Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chat box etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.
8.	File Storage	File Storage requirements	IBM block storage or other storage service or local file system
9.	External API-1	Purpose of external API used in the application	IBM weather API etc.,
10.	IOT Model	Purpose of IOT Model for integrating the sensors with the user interface.	IBM IOT platform.

Table-2 :

Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Open source framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e. g SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used