College code:9512

College name:JP COLLEGE OF ENGINEERING

Department:ECE

Project code:Proj_211932_Team_2

SMART WATER MANAGEMENT

TEAM MEMBERS:

1.GEETHA.N(au951221106011)

2.LOGASRI.N(au951221106018)

3.SUBHA.I(au951221106049)

4.PRATHIKA.T(au951221106029)

5.JENIFER.A(au951221106302)

PHASE 1:

PROBLEM STATEMENT:

Water scarcity is a pressing issue worldwide. As urbanization and modern lifestyles continue to evolve, water consumption has surged. Unfortunately, this surge has led to shortages in regions that once had ample water resources. States like Kerala and Chennai, which were once water-rich, now face scarcity due to wastage and inefficient management. Careless draining of freshwater from residential, hospital, and municipal tanks exacerbates the problem.

DESIGN THINKING:

To address this challenge, we propose a smart water management system that leverages technology to optimize water usage. Here are the key components of our project:

1. Automation in Water Pumping System:
- We aim to automate the process of filling up water tanks.
- A sensor placed on top of the tank continuously monitors the water level being supplied.
- When the water reaches a predetermined limit, the water pump automatically turns off.
- This prevents overflow and ensures judicious use of water.
2. Data Collection and Analysis:
- The system calculates the running time of the pump and the power consumed by the motor.
- All data is stored in the cloud for easy access.
- Budget estimation per month can be derived from this data.
3. Weather Notifications:
- The system also notifies users about weather conditions.
- If adverse weather (e.g., heavy rain) is predicted, users receive a notification to fill up their tanks while there’s still power supply.