

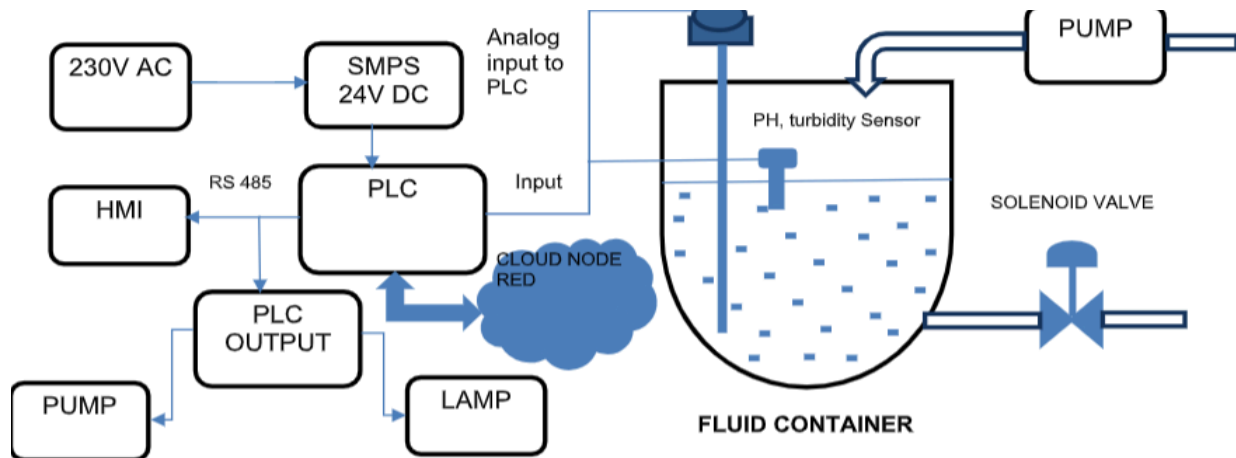
S8-PROJECT

DEVELOPMENT AND IMPLEMENTATION OF A IIOT BASED SYSTEM FOR FLUID PARAMETER AND MONITORING

PROPOSED SOLUTION

The Smart Fluid Container leverages technologies like Delta PLC for central control, Delta HMI for real-time monitoring, and GSM modules for sending alerts. Sensors monitor parameters like level, pressure, pH, and turbidity, while solenoid valves regulate fluid flow based on sensor data. Cloud integration ensures centralized storage and analytics, while Node-RED software facilitates process automation and remotemanagement.

BLOCK DIAGRAM



BOILERPLATE

Smart-Fluid-Container/

```
|
|— PLC/
|   |— IPS-Soft/
|   |— fluid_control_program.ips
|   |— modbus_config.ips
|— HMI/
|   |— DOPSoft/
|   |— fluid_control_HMI.dop
|   |— HMI_screenshots/
|   |— assets/
|— Node-RED/
|   |— flows/
|       |— main_flow.json
|       |— dashboard_flow.json
|   |— logs/
|       |— fluid_data_logs.csv
|   |— configs/
|       |— modbus_config.json
|       |— dashboard_config.json
|   |— ui/
|       |— dashboard_overview.png
```

WORK COMPLETED

PLC PROGRAM DRIVE LINK : [DRIVE](#)

DESIGNING HMI INTERFACE AND INTEGRATED WITH HMI

GITHUB LINK: <https://github.com/ELAVENDAN-RS/SmartFluidContainer>