Spoorthy Innovations

Smart Liquid Dispensing System (SLDS)

Product Overview

The SLDS (Smart Liquid Dispensing System) designed and developed by Spoorthy Innovations is a customized solution with the key objective to handle seamless dispensing mechanism of liquids remotely with TCP three-way handshake communication protocol.

Key Features

- Encrypted RFID Card Based Dispensing
- Cards function across all units under one cluster
- RFID Registration & top up through Mobile app
- Dispensing with Multiple intervals
- Data acquisition on Real-time basis
- Functions independently during network failures
- Quality Parameters data captured
- Quikfil – The vending mechanism is designed to work with a pump to fill 20 litres in 27 seconds
- Water level alerts to respective persons when reserved or empty
- FOTA as a feature to control and configure the system through Dashboard
- In-built Alert mechanism with escalation matrix
- Access to the web application to access, analyze the data captured

Mobile App

The Agents/ representatives for every unit are provided with unique ID and access to Mobile APP to handle end user related transactions. The financial transactions between Agent and end user; organization and Agent are looped through the server for the audit process.

SMART LIQUID DISPENSING SYSTEM

Dashboard

- Online real-time access to data pertaining to the Sujala Clusters, including the Health of the Mother Plant, Water production, consumption and distribution details.

- Role-based Layered access

- Mother Plants: as per the requirements laid by the Department of RWS&S, GoAP

- Remote Dispensation Units (RDU) in each Sujala Clusters: as per the requirements laid by the Department of RWS&S, GoAP

- Transportation Unit (TU) in each Sujala Cluster. a) Functional status of the TU; b) GPS route tracking data of each TU with Geo Fencing; c) Trip-wise & day-wise data of water supplied by each TU;

- Users/beneficiaries of each Sujala Cluster: Registration, Recharge, Card Blocking & New Card Issue, Card Unblocking, Chronological Transaction Data, Smart Card Categorization and Differential Pricing

- SMS Gateway to handle the communication related to user information & alert management

- Integrate with customized Android based Mobile Application a) For handling Registration, Recharge of cards with QR Code, b) Agent/ Field Executive virtual money top up against bank deposits

- Feasibility to link Aadhar data of the users at the field level during the initial registration process.

- Handle the Card Block and UNBLOCK features.

- Exposes and Consumes Web Services/REST API in order to integrate with the department website, Real Time Governance Mechanism, and Government Dashboards.

- Designed to handle FOTA (Firmware on the Air)
- Inbuilt alert mechanisms with respect to the Key Performance Indicators as a preventive measure. The indicators being the refilling of water at RDUs, Water Quality parameters, Functioning of Mother Plant, RDU and Transport Unit
- Raises Red Flags on specific deviations from operational deliverables
- Built-in algorithms to generate audit reports on financial and operational transactions
- Provides flexible report generating system.

The product is designed to meet all the functionalities and control features specified for the SUJALA Pathakam of the Government of Andhra Pradesh.

Installation Prerequisites

♦ Site Accessible ♦ Unit covered for safety ♦ Connected with 3KW Single Phase Power

♦ 2 three pin sockets (5A & 15A) ♦ UPS & Battery system ♦ Proper Earthing

♦ Custom designed Stainless steel dispensing panel to fix the IoT unit

♦ GPRS enabled SIM card with assured GSM Network

♦ Flow sensors Make: Broil 60L/minute ♦ Solenoid: 12V, 36Watt

Contact

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