**RFID BASED RATIONING SYSTEM**

**AIM:**

The main aim of the project to distribute the ration goods to authorized persons only by using RFID technology.

**PURPOSE:**

Public distribution system is one of the widely controversial offices that involves corruption and illegal smuggling of goods. All these happen because every job in the ration shop involves manual work and there are no specific hi-tech technologies to automate the job. One of the main concerns is the illegal entry in registers of the shop about the amount of products given to the consumers. The second concern is the weight of the products that are given to the people. Further there is always difficulty for the checking officials to go through the stocks available and the goods given in a register and find out irregularities.

**BLOCK DIAGRAM:**

**MICRO CONTROLLER**

**AT89S52**

**LCD DISPLAY (16\*2 LINES)**

**POWER SUPPLY**

**MOTOR DRIVER**

**DC MOTOR**

**PC**

**RFID READER**

**DESCRIPTION:**

The project proposes a way to automate all the above said manual jobs and as everything from data entry to weighing to pouring is done by machines and the people have no hand in that. This increases high reliability and there brings a sense of faithfulness to the people. Further as all the data allocation is done by the computer it can keep track of all the data and the whole process of data maintenance is taken care of by the PC and hence no chance of mistakes and virtually no manual work.

The project houses an RFID reader - a unique tamper proof RFID card given to all the people along with the ration card which constitutes intelligent ration cards. The people have to show the card before the reader and the reader communicates with the microcontroller there by with the PC. The PC searches for all the data of the customer including their photo and address and details of family members. Further it finds out the amount of quantity allocated to the family and sends instruction to the microcontroller. The microcontroller is attached with the stepper motor and a dedicated liquid handling pump for kerosene. The mechanical assemble along with the motor helps to pour the required quantity of rice for the person automatically and similarly the kerosene is pumped by the liquid pump and poured in the customer’s vessel. As everything happens automatically there is no chance of irregularity.

**HARDWARE COMPONENTS:**

1. Microcontroller(AT89S52)
2. RFID reader and tag.
3. DC motor
4. LCD

**SOFTWARE REQUIREMENTS:**

* KEIL µ VISION4
* Embedded C
* ISP

**ADVANTAGES:**

* Distribution of ration sources to authenticated users only.

**RESULT:**

The implementation of design of ubiquitous fully automated rationing system for public distribution systems is done effectively.