SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMKUR-572103
(An Autonomous Institute under Visvesvaraya Technological University, Belgaum)

Project Report
on

"e-RATION MANAGEMENT SYSTEM"

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submitted in partial fulfillment of the requirement for the completion of

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ABSTRACT

The scheme of providing basic domestic commodities on subsidy to poor families in developing countries like India is important aspect to meet fundamental requirement of people. If an autonomous system is available for ration distribution it is very helpful for the card holders in many ways. "e-Ration Management System" is an automated system developed to dispense the correct quantity of ration to the card holders depending on type of card and the number of members in the family, and also maintain the details of transactions in database.

The existing manual distribution system requires maintenance persons to measure the quantity and to maintain record of transactions etc. This manual system is facing many problems such as,

- Card holders wasting time for collecting ration by standing in a queue for hours together.
- Lot of fraudulent activities in ration dispensing societies.
- Human intervention in updating transactions.
- Maintenance of records in the form of hard copy is difficult.

The "e-Ration Management System" avoids above mentioned problems. The card holder can access the system for ration at any time in a month, no human intervention in ration shop. This system enrolls each transaction automatically in to the database; the database is created using MS Access 2003. The unique number of RFID card of card holder is enrolled in database for future records. The RFID reader will read unique number from RFID card and sends it to GUI, which is created using Visual basic 6.0. Depending on the number of members in family and type of card (APL or BPL) the system will calculate the upper limit of the rationing and corresponding data packet is sent to the microcontroller AT89S52. The automatic disbursing system contains DC motors to open and close the valve; these motors are controlled by microcontroller. Load cell and ADC are used to measure the weight of commodity. Once the disbursed quantity (weight) matches the requested amount then the valve will close and the ration status is automatically updated after each transaction. After each transaction card holder receives a SMS from the ration shop through the GSM.